A QUALITATIVE STUDY OF THE COMPETENCIES THAT SHOULD BE COVERED BY A SPECIALISED UNDERGRADUATE DEGREE IN RISK MANAGEMENT

by

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DECLARATION

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_____ 28 February 2021

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CJ DE SWARDT

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ABSTRACT

Purpose

The purpose of the research was firstly, to determine the competencies required of risk managers and secondly, to consider the implications of such competencies in determining possible modules for inclusion in the design of a specialised undergraduate qualification in Risk Management.

Methodology

A qualitative research approach was followed, involving focus group interview sessions as part of an Interactive Qualitative Analysis (IQA) research study. Focus Group 1 comprised of academics teaching risk management at public universities in South Africa, and Focus Group 2 comprised of risk management practitioners in South Africa.

Findings

The competencies identified are business management and risk management knowledge; attributes such as assertiveness and courage; values such as ethics and integrity; as well as people, business and technical skills.

Research implications

The unique contribution of the current research was the innovative use of IQA for data collection, the removal of subjectivity and the rigour in analysing and presenting the results. The results are a starting point or foundation for the design of a specialised undergraduate degree in risk management that will both meet the requirements of the risk management profession and will equip learners with the best possible combination of knowledge, skills, attributes, values and attitudes to effectively manage risk in organisations. The implications for further research are that a study of the design, benchmarking and validation of a curriculum framework for a specialised undergraduate degree in risk management could be conducted. The development of a curriculum framework or curriculum did not form part of the scope of this study.

Implications for industry

This study found that many of the international risk management professional bodies developed competency models to describe the competencies needed by their members to perform their risk management tasks and activities. These models further outline the knowledge, skills and behavioural attitudes that are essential for risk professionals to succeed and contribute to their organisations in a meaningful way. The results of this study can serve as a foundation for the Institute of Risk Management South Africa (IRMSA) in the design of a unique competency framework or model for the South African context.

Social implications

The findings of this study serve as a starting point for the introduction of specialised degrees in risk management at universities in South Africa. Despite the requirements of the South African Qualifications Authority (SAQA) and the Council for Higher Education (CHE), this study demonstrated that a specialised degree in risk management needs to be offered to meet the need expressed in the literature, as well as by professional risk managers in South Africa. The implication for public policy is that SAQA and the CHE need to reconsider their rigid stance about the composition of specialised qualifications, and instead set a more achievable range of subjects for the field of specialisation that should be included in the curricula of specialised degrees. As indicated by this research, a combination of subjects from different disciplines is required to enhance the risk management graduates' competencies and employability.

Originality/value

The use of IQA is a novel way of ensuring rigour and objectivity in arriving at the required competencies of risk managers and aids in the compilation of a foundation for the design of a specialised undergraduate degree in risk management, thus ensuring a competency-based curriculum that will meet the needs of the profession.

Research limitations

The limitation of this research lies in the use of focus group interview sessions only as the method of collecting data. The IQA process makes provision for focus group interviews and individual follow-up interviews to verify and clarify data collected

during focus group interview sessions. Conducting individual interviews was considered unfeasible due to time and resource constraints. This limitation was overcome by emphasising detail in the description of data during the focus group interview sessions and using focus group constituents from different constituencies, chosen according to their distance from and power over the research phenomenon. A comparison between the perceptions of the two groups, their differences and commonalities was deemed sufficient to ensure authenticity and to meet the research objective.

Key words: Competencies; Chief Risk Officer (CRO); Risk Management; Enterprise Risk Management (ERM); Chief Risk Officer (CRO); Interactive Qualitative Analysis (IQA); Constituents; Affinity Relationship Table (ART); Interrelationship Influence Diagram (IRD); System Influence Diagrams (SIDs)

Concise summary:

The purpose of the research was firstly, to determine the competencies required of risk managers, and secondly, to consider the implications of such competencies in determining possible modules for inclusion in the design of a specialised undergraduate qualification in Risk Management. A qualitative research approach was followed, involving focus group interview sessions as part of an Interactive Qualitative Analysis (IQA) research study. Focus Group 1 comprised of academics teaching risk management at public universities in South Africa, and Focus Group 2 comprised of risk management practitioners in South Africa. The competencies that were identified are business management and risk management knowledge; attributes such as assertiveness and courage; values such as ethics and integrity; as well as people, business and technical skills.

Isifinyezo esifushane:

Okokuqala inhloso yocwaningo, ukuthola amakhono adingekayo kubaphathi bezinhlekelele kanti okwesibili, ukubheka imiphumela yalokho kusebenza ekunqumeni amamojuli angafakwa ekwakhiweni kweziqu ezikhethekile ezingakaphothulwa ngabafundi ku-Risk Management. Kwalandelwa indlela yocwaningo efanelekile, ebandakanya izikhathi zokuxoxisana zamaqembu njengengxenye yocwaningo lwe-Interactive Qualitative Analysis (IQA). I-Focus Group yoku-1 inabafundi abafundisa ukulawulwa kwezinhlekelele emanyuvesi

kahulumeni aseNingizimu Afrika, kanye neFocus Group yesi-2 inabasebenzi bokulawulwa kobungozi eNingizimu Afrika. Amakhono ahlonziwe ukuphathwa kwebhizinisi nolwazi lokulawulwa kobungozi; anezimpawu ezinjengokuzethemba kanye nokuba nesibindi; ubugugu obufana nokuziphatha nobuqotho; kanye nabantu, amakhono ebhizinisi nezobuchwepheshe.

Verkorte opsomming:

Die doel van die studie was eerstens om die bekwaamhede waaroor risikobestuurders moet beskik te bepaal, en tweedens, wat die implikasies van sodanige bekwaamhede inhou vir die modules vir insluiting in die ontwerp van ‘n gespesialiseerde voorgraadse kwalifikasie in Risikobestuur. Die studie het ‘n kwalitatiewe navorsingsbenadering gevolg deur gebruik te maak van fokusgroepsessies as deel van ‘n Interaktiewe Kwalitatiewe Ontleding (IKO) navorsingstudie. Fokusgroep 1 het bestaan uit akademici wat risikobestuur by openbare universiteite in Suid-Afrika doseer, en Fokusgroep 2 het uit risikobestuurpraktisyns in Suid-Afrika bestaan. Die bekwaamhede wat identifiseer is, is kennis van ondernemingsbestuur en risikobestuur; eienskappe soos selfgeldendheid en moed; waardes soos etiek en integriteit; asook mense, sake en tegniese vaardighede.

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LIST OF ABBREVIATIONS AND ACRONYMS

The following abbreviations are used throughout the study.

ACPCU	American Institute for Chartered Property Casualty Underwriters
ARTs	Affinity Relationship Tables
BCBS	Basel Committee on Bank Supervision
CEO	Chief Executive Officer
CHE	Council for Higher Education
CRO	Chief Risk Officer
COSO	Committee of Sponsoring Organisations
ERM	Enterprise Risk Management
ERMA	Enterprise Risk Management Academy
GRC	Governance Risk and Compliance
HEI	Higher Educational Institution
HRD	Human Resource Development
IEC	International Electrotechnical Commission
IQA	Interactive Qualitative Analysis
IRR	Interrelationship Influence Diagram
IRM	The Institute of Risk Management
ISO	International Organisation for Standardization
IIRSM	International Institute of Risk And Safety Management
IRMSA	Institute of Risk Management South Africa
MARM	Malta Association of Risk Management
PARIMA	Pan-Asia Risk and Insurance Management Association
SAQA	South African Qualifications Authority
SIDs	System Influence Diagrams
WEF	World Economic Forum

CHAPTER 1:
INTRODUCTION

1.1 BACKGROUND

Risk Management has been identified as one of the most compelling business issues of our time (Chapman, 2011:3).

In the preface of the World Economic Forum's 2020 Global Risk Report, President Bërge Brende maintains that the global economy is faced with a "synchronised slowdown"; that the past five years have been the warmest on record; and that cyber-attacks are expected to increase. All this is occurring while citizens protest the political and economic conditions in their countries and voice concerns about systems that exacerbate inequality. President Brende continues that the growing palpability of shared economic, environmental and societal risks signal that the horizon has shortened for preventing, or even mitigating, some of the direst consequences of global risks. In addition, the 2020 Covid-19 pandemic has wreaked havoc, disrupted businesses, and led to the closure of several others (Li *et al.*, 2020).

Locally, South African firms also face an increasingly risky environment, placing risk management firmly in the spotlight. The highly publicised industrial strikes in 2014 by the Association of Mineworkers and Construction Union (AMCU), South African Post Office (SAPO) and the National Union of Metalworkers of South Africa (NUMSA), as well as the 2019 strikes by NUMSA and SACCA (South African Cabin Crew Association) left the South African economy reeling. The continued ESKOM crisis, the collapses in infrastructure, and ethical failures relating to crime, bribery, corruption and sexual harassment have dominated the news media since 2014. The 2020 outbreak of the Covid-19 pandemic and the accompanying lock-down restrictions, with its devastating effect on lives and the South African economy, have again emphasised the ever-changing risk environment and provided new prominence (and pressure) to the risk management function (Pyott, 2020:1).

A risk report, published in January 2015 by the Institute of Risk Management South Africa (IRMSA), stated that South Africa was no longer in a position to deal with unforeseen shocks because its resilience and ability to cope with new challenges

were increasingly being compromised. In this context, an evaluation of the country's top risks was done by IRMSA over a two-year period, using risk professionals and risk practitioners in the public and private sectors as respondents. The results were used to compile two lists of the top ten risks in South Africa in terms of likelihood and consequence. Six risks appeared on both lists, with corruption listed as the top risk in South Africa. In addition, the shortfall or breakdown of critical infrastructure, unemployment, income disparity, cyber-attacks and failure of a primary financial mechanism or institution were the other five risks that appeared on both lists.

When the results of the report were compared with the World Economic Forum's (WEF) Global Risks Report, it showed that South African respondents were more concerned with economic risks, as opposed to the environmental risks that dominated the attention of the WEF respondents. Societal and technological risks received equal focus in both lists. Geopolitical risks were rated as being very high by South African respondents, while they did not appear on the WEF top ten list. Environmental risks were prioritised by the WEF respondents, while they did not appear on the South African top ten list.

The 2020 risk report, issued by IRMSA, was based on a review of the risk reports over a five-year period (2015-2019), as well as key current developments, forward-looking views and scenarios from experts. When the results of the 2020 IRMSA report were compared with the WEF Global Risks Report for 2020, they again showed that South African respondents were more concerned with economic risks, as opposed to the environmental risks that dominated the attention of WEF respondents, as indicated in Table 1.1.

Table 1.1: Local versus global risks

Top 20 risks for 2020 for South Africa	Top 10 global risks: Likelihood	Top 10 global risks: Impact
Sparseness of unified, ethical and visionary leadership	Extreme weather	Climate action failure
Continuing private and public governance failures	Climate action failure	Weapons of mass destruction
Failure to root out deeply entrenched corruption	Natural disasters	Biodiversity loss
Ill-conceived changes in legislation	Biodiversity loss and	Extreme weather

and regulations	ecosystem collapse	
Ill-conceived National Health Insurance policy and/or sub-optimal implementation	Human-made environmental disasters	Water crisis
Ill-conceived land reform policy and/or sub-optimal implementation	Data fraud or theft	Information infrastructure breakdown
Failure to develop, attract and or retain talent	Cyber-attacks	Natural disasters
Extreme weather events, natural disasters and climate change	Water crises	Cyber-attacks
Insufficient electricity and/or energy	Global governance failures	Human-made environmental disasters
Disruptive technologies	Asset bubbles	Infectious diseases
Cyber-attacks, data fraud and data theft		
Failure, delay and/or sub-optimal implementation of economic reform initiatives		

Sources: IRMSA Risk Report (2020) and the Global Risk Report (2020)

The above results clearly indicate that South Africa has a unique risk landscape with very specific challenges. In this unique risk landscape, the efficient management of risks is vital in ensuring the sustainability of organisations by identifying, assessing and mitigating the risks that could lead to the failure and demise of organisations. In his keynote address at the 2019 IRMSA annual conference, Chief Justice Mogoeng Mogoeng highlighted the importance of risk management in the current stage of South Africa's history. He stated that many risks have materialised, but in their wake a whole new set of risks have emerged. He emphasised that these risks needed to be clearly identified by the nation, organisations and individuals, and that the necessary strategies need to be put in place to mitigate them (IRMSA Risk Report 2020).

The quality of risk management in organisations, however, depends heavily on the competence of the employees working in the risk management field. The role that higher education plays in qualifying students for the risk profession is an important issue that concerns the future of risk management. Smeby (in Smeby & Sutphen, 2015:1) maintains that it is the responsibility of higher education to equip students

with the knowledge they need for employment, including how to acquire, learn to use, exchange and build on knowledge. According to Smeby (2015:7), vocational training in various fields has been upgraded to higher education during the past few years, with a greater emphasis on theoretical and codified knowledge. Smeby points out that the curriculum has shifted from the *learning through experience* approach to a more *academic* approach.

Seen from the perspective of the sociology of professions, the two core characteristics of professionalisation are academisation (in terms of the development of a theoretical knowledge base) and the institutionalisation of education (namely, the education provided in universities or other higher education institutions (HEIs) (Smeby, 2015:7). Horwitz (2020:3) concurs by emphasising the educational part as foundational to the knowledge and skill-set of a potential Chief Risk Officer (CRO). He recommends that potential risk management practitioners should seek out accredited business colleges that have programmes specifically dedicated to Enterprise Risk Management (ERM) graduate degree education.

The above-mentioned trend is equally being experienced in South Africa, where many industry institutes operating within the country, including the Institute of Risk Management South Africa (IRMSA), have registered as professional bodies with the South African Qualifications Association (SAQA). Professions are broadly defined by Abbott and Evetts, quoted by Smeby (2015:9), as “knowledge-based occupational groups that have the more abstract or academic knowledge-base that is generally acquired in higher education”.

Smeby (2015:10) posits that professionals need to acquire knowledge as the basis, not only for carrying out their tasks, but also for scientifically justifying their professional practice to other professional groups, and to a much greater extent, the lay audience. They point out that knowledge is more than just a means to an end; it is also a basis for professional identity. Robertson (2015:1) adds that globalisation, internationalisation, massification, advances in technology and the accelerated international growth in knowledge conception and production, have brought about rapid changes in higher education. All these changes require new ways of thinking and doing business, which emphasises the role of education providers in preparing future employees, more specifically, in terms of this study, as risk managers, to deal with the challenges of life and labour.

Chetty (2012:5) is in agreement and points out that in recent years, the global higher education environment and labour market have been characterised by an increasing preoccupation with the concept of graduateness. Universities are increasingly responsible for producing skilled, competent and flexible individuals that are employable and who will contribute to the new knowledge-based economy. Universities are under pressure to close the gap between what they produce in terms of students and what the labour market wants.

This current study was conducted in the context of the unique and challenging risk and educational environment of South Africa. This chapter will first examine the increased importance and changing role of risk management in proactively dealing with risks. Secondly, the role of Higher Education in preparing future risk managers, by providing qualifications that will equip risk professionals with the necessary competencies to deal with risk in organisations, will be investigated.

The current study aimed to firstly, identify the competencies risk managers should possess to become effective risk managers, and secondly, to consider the implications of such competencies in the design of a specialised undergraduate degree in risk management.

The study comprises of two parts. The first part is a literature review that consists of two sections. The first section of the literature review is structured to place the concepts *risk* and *risk management* in perspective, to review the evolvement of risk management and to outline risk management principles, frameworks and processes. The second section investigates the role and function of the risk practitioner, defines the concept *competence*, considers research findings relating to risk management competencies, and reviews work done by professional bodies in terms of risk management competencies.

The second part of the study involves a qualitative study using focus group interview sessions as part of Interactive Qualitative Analysis (IQA). This study aims to identify the competencies that risk practitioners should ideally possess to effectively manage risk. The focus of the research is on the development of a list of competencies that could guide universities in South Africa in structuring a specialised undergraduate degree in risk management.

1.2 TRENDS IN RISK MANAGEMENT

This section considers trends in risk management by describing the changing role of risk management and the development and role of the risk “champion”.

1.2.1 The changing role of risk management

Risk management was traditionally associated with the insurance specialist, broker or auditor who dealt with the negative consequences of risk exposures, while some other traditional approaches to risk management focused on compliance or corporate government issues (Rochette, 2009:397). This opinion is supported by Fox (2013:30), who points out that the common definitions of risk usually focus on potential losses or other undesirable outcomes.

The challenges created by terrorism, corporate scandals and regulations led to an increased focus on corporate governance and risk management (Graziano & Aggarwal, 2005:42). Ballou and Heitger (2005:1) similarly remark that a spate of highly publicised business failures, scandals and fraud, including the collapse of Enron, WorldCom and AIG, have led to a series of laws and regulations that senior management are required to comply with, as well as the implementation of standards calling for strengthened corporate governance and risk management.

These scandals and changes to corporate governance requirements have increased stakeholder expectations for senior management and the board of directors to be able to effectively manage all risks across the organisation (Beasley, Chen, Nunez & Wright, 2006:49). In addition, according to Beasley *et al.* (2006:49), there is also an increase in the volume and complexity of risk that most enterprises face. Acharyya and Brady (2014:113) agree that the complexity of financial products and market competition has increased over time and that it has generated additional regulatory responses, such as the Basel II and III Accords, as well as other solvency requirements for financial institutions. Acharyya and Brady add that, in addition to increased regulation, the insurance industry has been unable to provide insurance coverage for the new degree of risks, owing to the lack of capacity and insurability criteria. This resulted in businesses turning to capital and derivative markets.

The growing importance of the risk management function is further confirmed by Holbrook (2012:20) in his reference to a benchmark survey done by the Risk and

Insurance Management Society (RIMS) in 2011. RIMS determined that 80% of organisations in the United States of America (USA) either have or are in the process of developing an Enterprise Risk Management (ERM) programme.

De Beer (cited by McDonald, 2013:28) observes that the financial crises did not stem from the ineffectiveness of risk management, but rather resulted from basic risk management principles being ignored. According to De Beer, there is no doubt that the increased awareness of and respect for risk management is a direct result of the lessons learned from a painful time in the economic history of the USA. As a result, organisations such as financial services companies, manufacturers and retailers, have embraced the risk function in a more meaningful way, which has resulted in the creation and expansion of risk management departments.

The increased focus on risk management is also confirmed by Chapman (2011:3), who believes that business failures, of which the global financial crisis of 2007-2010 is a typical example, indicate that risk exposures have not been fully understood and that risk management practice has been inadequate. Pyott (2020:2) agrees that events, such as the 2008 financial crisis and the more recent rising threats of cyber-crime, have nudged risk management into the spotlight.

Chapman (2011:3) advises that the evolving nature of risk and expectations about its management have challenged the traditional manner in which risks have been segmented and carried out in silos. He further points out that the silo approach to risk management failed to consider the cumulative effect of unforeseen events on multiple business areas, as well as overlooking the interrelationships between risks under the categories of operational, financial and technical risk, often with adverse outcomes.

This view is further supported by Achryya and Brady (2014:114) who note that emerging risks are not limited to traditional business functions but range from sudden stock market crashes to natural catastrophes, pandemics, terrorism, and technical, political, systemic, reputational and social responsibility failures. They mention that although more businesses are beginning to realise that risks affect them holistically, there are still artificial boundaries between the different types of risk.

According to Beasley (2009:61), the meltdown in the world's financial markets, which included the implosion of several financial institutions, resulted in the development of tools that led to significant improvements in risk management. Beasley maintains that many business failures can be attributed to the narrow focus of boards and executives on known risk areas, such as operations and compliance, and the lack of focus on the risk related to strategy and forward-looking events. He points out that the increase in the volume and complexity of risks facing the enterprise is a major obstacle in the development and establishment of an effective enterprise-wide risk management oversight. The development and establishment of an effective enterprise-wide risk management oversight are further complicated by the lack of up-to-date and sophisticated risk management techniques being applied by the board and senior executives.

The responsibility for overseeing risk management falls on the board of directors, while the ownership responsibility for enterprise risk management falls on the Chief Executive Officer (CEO) and other senior executives (Ballou & Heitger, 2005:2). According to Ballou and Heitger (2005), there is an increased need for enterprise risk management from directors down to lower-level employees, due to the unprecedented challenges being faced by organisations competing in an increasingly global, volatile and regulated business environment. It is becoming increasingly difficult to meet consumer needs, manage complex supply chains, utilise alliance partners, and ensure effective and efficient internal business process performance, even with today's more sophisticated, real-time information systems. The increasingly complex nature of business risk suggests that companies need to develop a formal process to properly manage their portfolio of risk.

Gordon, Loeb and Tseng (2009:301) observe that a paradigm shift in the way that organisations view risk management has led to the adoption of a more holistic approach towards risk management, commonly referred to as enterprise risk management (ERM), rather than looking at risk from a silo-based perspective. Frigo and Anderson (2011:81) agree that there is a growing focus on risk management, and this includes the focus expanding to the broader, enterprise-wide risks that organisations face, mainly due to the increased complexity and evolvement of the business environment.

The risk concept, the evolvement of risk management towards ERM, and the risk management framework and process will be investigated in Chapter 2 of this study.

One of the main components of an ERM Framework is the appointment of a risk champion, usually in the form of a Chief Risk Officer (CRO). This aspect will be highlighted in the next section.

1.2.2 The development and role of the "risk champion"

Rochette (2009:401) believes that the appointment of a CRO by an enterprise is a reflection of the level of seriousness and commitment towards the implementation of ERM. Rochette (2009:398) points out that a person occupying the position of CRO would usually be a C-level executive responsible for assisting the organisation with the risk aspects of its strategic choices, as well as being responsible for implementing and monitoring the ERM process itself. This opinion is supported by Graziano and Aggarwal (2005:42), who state that there has been increasing focus on corporate governance and risk management, due to the challenges created by terrorism, corporate scandals and regulations, and that part of this focus included the creation, or enhancement, of the role of the CRO.

Bugalla and Kallman (2013:10) mention that the role of the CRO and an "enterprise-wide" approach to risk management was highlighted by legislation such as the Dodd-Frank legislation that was enacted in 2010 in the USA. Section 167 of this legislation specifically calls for a board-level risk committee that includes a risk management expert, and a new framework that mandated an "enterprise-wide approach to risk management". Bugalla and Kallman remark that the Board of Governors of the Federal Reserve System proposed "enhanced prudential standards" which, among others, demand the establishment of a risk committee, which is a board-level risk committee with one member being an independent "risk management expert". In addition, the proposed standards demand the employment of a CRO who would report directly to the board and risk committee for every covered company and every public-traded bank holding company with assets of $10 billion. The proposed standards further set out detailed rules about the responsibilities of the risk committee.

Bugalla and Kallman (2013:10) opine that the CRO has the potential to yield considerable power in organisations. They point out that although the proposed CRO

mandate specifically applies to companies falling under the Federal Reserve umbrella, the functional responsibilities of the CRO, as stated in the proposed rules, are broad enough to serve as a benchmark for other industries beyond the financial sector. They believe that CROs would eventually become a permanent fixture within the broader spectrum of publically-traded companies, as well as privately-held businesses. They believe that this trend can be ascribed to the fact that organisations have started to recognise the value of best practices in governance and risk management and/or are pushed either by crises or external forces, such as shareholders, credit rating agencies and government mandate.

Lee and Shimpi (2019:1) concur and believe that ERM has moved from an interesting management concept to an important management practice. They propose that to implement ERM as a management practice, organisations are creating ERM-specific roles, responsibilities and structures, in particular, that of the CRO. They conclude that the role of the CRO has risen dramatically in prominence over the last few years. MetricStream (a company that provides governance and risk and compliance software solutions) (2018) believes that the CRO has become indispensable to an organisation's executive team, particularly in terms of their role of managing risk appetites, developing a risk framework and policies, and acting as an advisor to the Board and the so-called "C-suite" (a corporation's most important senior executives). MetricStream predicts that as organisations move to new and more unpredictable waters, the responsibilities of the CRO will swiftly evolve.

Bugalla and Kallman (2013: 10-11) maintain that the role of risk management would also become increasingly important in family-owned businesses, where the next generations, who might not be actively involved in the management of the business, want to protect their equity and dividend stream. Potential buyers of privately-held businesses also take a more comprehensive approach to due diligence processes, and it would therefore be wise to strengthen the risk management programmes of privately-owned businesses.

In the light of the growing importance of risk management and the development of the CRO position, Lee and Shimpy (2019:1) raise the question as to how a person becomes a risk management practitioner/professional. This question served as motivation for this research study and is further investigated in the next paragraph.

1.3 MOTIVATION FOR THE STUDY

Andy Kuchar, senior director of risk management for Arby's Restaurant Group was quoted by Gabel (2008:25), as saying that "historically, risk management has not been something you learned, but something you just fell into. Increasingly, this is no longer the case and students across the world are now enrolling in university programmes to become the risk managers of tomorrow". Kuchar notes that companies are discovering that they need risk managers and that they cannot just take someone from another department and put a risk management hat on them. Kuchar emphasised that increasingly job postings are reading "risk management degree preferred".

McDonald (2013:28) advises that although many risk managers or officials gain a position in risk management through on-the-job training coupled with personal development experiences, risk organisations are trying to define the necessary professional training and grant designations for recognition as an ERM expert and professional. She maintains that risk management has been "flying under the radar" for years and that those in the profession often had not originally planned to be there. She believes that a tough job market for graduates in the wake of the slowly turning financial crises is responsible for students turning to fields where there are jobs upon completion and a visible career path.

Adebayo Adebeshin, risk manager of MTN Nigeria, cited in the Risk Frontiers Africa Survey (2015), concurs that a risk manager needs a proper risk education, which is not available as a compact course in Nigerian universities. He opines that risk management is treated as part of other related fields of study and that most risk professionals therefore spill over from these "related" academic fields. He states that professional certification, such as that offered by professional risk management institutes, provides the bridge which the Nigerian academia does not offer the risk professional.

An investigation into the situation in South Africa indicates a similar trend as in Nigeria. The professional body, IRMSA, is actively promoting and providing professional risk management designations and continued professional development opportunities. A study, using the 2018/19 online prospectus of public universities in South Africa, however, shows that only two of the 26 public universities offer

undergraduate degrees containing the concept risk management in a qualification. It must be pointed out that in both cases, risk management is paired with another subject field such as Economics and Agricultural Economics (University of North West) or Insurance (University of Witwatersrand). This may be attributed to the requirements set by SAQA and the Higher Education Qualification Committee (HEQC) of the Council for Higher Education (CHE), in terms of which, at least 50% of the modules of a specialised qualification have to represent the field of specialisation. To meet this requirement, a combination of specializations such as Risk Management, Economics and Insurance is used to achieve the 50% requirement for the degree to be regarded as a specialised degree. At some of the other public universities, risk management is offered either as a module in a degree programme, as a post-graduate qualification, diploma or certificate programme, or as Short Learning Programmes. The detailed findings of this study are reflected in Appendix B of this study.

Bugalla and Kallman (2012:27) note that risk management practitioners are increasingly shifting their focus from event and financial risks to a broader perspective that encompasses operational, enterprise and strategic risks. They maintain that the risk managers of the future will not only have new and different responsibilities, but will also need a skill set that will enable them to carry out these responsibilities.

Bugalla and Kallman illustrate the need for and development of a risk management career path using an adopted S-Curve. The tool is used to consider the future of risk as a discipline and the skill sets that will be required to match the evolvement of the discipline. Figure 1.1 illustrates how the skills and value of risk managers increase as they devote more time, effort and education to performing their tasks. Education or professional development is highlighted as a common variable that shapes the career of an individual.

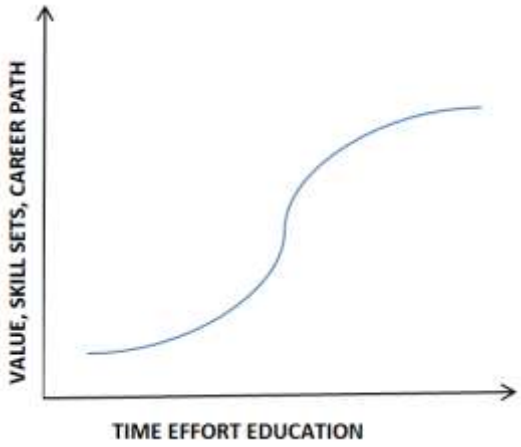

Figure 1.1: The Career S-Curve

Source: Bugalla & Kallman (2012:28)

The outcome and shape of the S-Curve rely on the combination of the timing, diversity and complexity of educational programmes and experiences and the value that these projects contribute to the organisation. They point out that the S-curve is not static and can have breaks or discontinuities caused by the development of new technology or new approaches to risk management that impact one's career trajectory. The development of ERM caused a discontinuity of the S-Curve of the traditional risk manager.

Figure 1.2: The ERM Career S-Curve

Source: Bugalla & Kallman (2012:28)

Figure 1.2 illustrates that the ERM discontinuity represents a break from the flat or mature career path, and is replaced by an elevated set of ERM skills that made the risk professional more valuable to the organisation with a resulting enhanced career

path. As ERM is increasingly adopted as best practice, it becomes important for risk professionals to assess their career paths and to ensure that they are keeping up with the expanding demands of their profession (Bugalla & Kallman, 2012:30).

According to Beasley (2009:61), the need for more effective risk management skills should not only be seriously considered by boards, senior executives and regulators, but should also warrant serious consideration by university business schools as educators of the next generation of business leaders. Beasley points out that although business schools are considering the implications of the financial crisis on their curricula by addressing the need for more extensive training on the challenges of managing risks across complex enterprises, business schools in return suffer by creating their own silos. Beasley believes that risk management education in undergraduate and graduate business programmes tends to be silo-based, when handling the risk, specific to the discipline of specialisation, in separate silo-topic courses. He concludes that although the silo-topic courses often address specific risk-related issues in depth, they fail to address the fundamentals of risk interaction across silos, and how risk management interacts with strategic planning and value creation.

Acharyya and Brady (2014:114) agree that despite the developments in the risk management field towards a more holistic approach, higher educational institutions (HEIs) continue to offer traditional segmental risk management curricula that concentrate on insurance, financial engineering, security or environmental silos. Acharyya and Brady maintain that although professional bodies, such as the Institute of Risk Management and the Institute of Actuaries, have made progress in addressing this matter in their courses, the focus is on practice-based methods and they tend to concentrate less on the theoretical aspects of ERM. To produce ERM experts, Acharyya and Brady emphasise that both HEIs and professional bodies need to update the curricula from segmental to holistic.

The necessity for explicitly designed courses to offer education on risk management is also highlighted by Beasley (2009:63). He cautions that unless business schools embrace a more holistic, enterprise-wide approach to risk management education, future business leaders will not be better prepared than the current executives are to meet the increasing demands for better risk oversight across tomorrow's enterprises. Beasley emphasises that business schools need to explore how to improve ERM-

related learning opportunities with the development of courses that explicitly educate students on the fundamentals of ERM.

This section provided a brief overview of the development of risk management and the emergence of the ERM approach to risk management. It also highlighted the role of educational providers in preparing future risk managers. Further research on these topics is necessary to make suggestions in terms of the body of knowledge for specialised undergraduate degree programmes in risk management for South Africa. This will form part of the literature review in Chapters 2 and 3 and the methodology chapters, Chapters 4 and 5. The next section presents the problem statement to be addressed by this study.

1.4 PROBLEM FORMULATION

From the views expressed by authors in the previous section, it follows that a revised ERM approach to risk management education and training is required, focusing on a more holistic approach to risk management education. A gap was identified between the trends in the risk profession and the risk management education offered by public universities. It was observed that while organisations and industry bodies are moving towards a more holistic approach to risk management in the form of ERM, providers of risk management education continue to focus on traditional segmental risk management curricula by concentrating on insurance, economics, financial engineering, security and environmental silos.

The question arises as to which risk management competencies ideally should be focused on in the design of a specialised undergraduate degree in risk management that will align risk management education with the evolving training needs of the risk management profession. An Interactive Qualitative Analysis (IQA) study was conducted to answer this question. The IQA study used two focus groups, comprising of a purposefully selected sample of academics teaching risk management at public universities in South Africa and risk practitioners actively engaged in the management of risk in organisations, to gather input about the competencies that should be covered by a risk management specific qualification.

Against the background of a need for risk management education at the higher education level, the research question formulated for this study is:

What are the risk management competencies that should be covered by a specialised undergraduate degree in risk management?

The subsidiary questions are:

- What competencies (including knowledge, skills, attributes, values and attitudes) are needed by risk practitioners to enable them to meet the risk management challenges in South Africa?
- To what extent do the perceptions of academics teaching risk management and risk practitioners correspond or differ in terms of the competencies identified?
- Based on the identified competencies, what are the implications for a proposed specialised undergraduate degree in risk management?

Concerning the research problem, this study aimed to accomplish certain research objectives, as formulated in the next section.

1.5 RESEARCH OBJECTIVES

The primary objective of this study was firstly, to identify the competencies that risk practitioners should possess to become effective risk managers, and secondly, to consider the implications of such competencies in the design of a specialised bachelor degree in risk management. It is hoped that the findings of this study will serve as a starting point for the development of a specialised undergraduate degree in risk management that will align risk management education with trends in the risk management industry and the educational needs of current and future risk practitioners in South Africa.

The significance of resolving the research problem and achieving the objectives of this study will contribute significantly to the risk management profession and business organisations in general, and HEIs in particular, as illustrated in the next section.

1.6 SIGNIFICANCE OF THE STUDY

Booth (2014:1) considers that African risk managers are playing a more central role in both the operational side of the business and also in terms of strategic planning. Booth states that risk managers who took part in the 2014 Global Risk Frontiers

Africa survey believed that risk managers were gaining an increasingly high profile in businesses across the African region but that more development was needed. She further points out that many of Africa's risk managers previously worked in the financial services sector, where many of them were auditors. Risk managers, according to the survey, indicated that there was a need for a defined career path, with recognised qualifications, to help the sector develop further. Many of the risk managers believed that they were working in silos, and that made it difficult to encourage "new blood" into the field.

In 2014, Sheralee Morland, GM: Enterprise-wide Risk Management at Nedbank, and then President of the Institute of Risk Management South African (IRMSA), commented that the design of a defined career path in risk management would not be an easy task but that the development of a recognised career framework that would guide risk managers in their career choices, would be a good start. In addition, Ms Morland mentioned that risk qualifications should start at the tertiary level and that several risk managers would like to see more colleges and universities developing risk management courses (Booth, 2014:1).

This study will therefore be of significance to providers of higher education, the risk management profession, students and business organisations. The outcome of the study will assist higher education providers in designing a specialised undergraduate degree in risk management, that is relevant and in line with the needs of the risk management profession, thereby ensuring the graduateness of students in this particular field. Specialised undergraduate degrees in risk management will serve as underlying qualifications for and enhance the profile of the risk profession. It will also assist the professional body in developing a career path for risk professionals. Students in this field of study will be able to gain the necessary competencies to ensure that they are capable to perform their risk management role and function and are employable in this management field. Business organisations will benefit through the provision of risk practitioners that will have the necessary knowledge to manage the risks of the enterprise in a holistic and enterprise-wide manner.

1.7 RESEARCH DESIGN AND METHODOLOGY

1.7.1 Research design

In line with the research question, this study was conducted as a non-experimental, empirical study in a qualitative interpretivistic paradigm. Academics teaching risk management at public universities in South Africa and risk practitioners in South Africa were invited to participate in two separate focus group interview sessions as part of an IQA study. In line with the systems approach to an IQA study, both inductive and deductive reasoning were used.

To place the chosen design and methodology in context, the terminology used in the above paragraph will be briefly discussed and motivated.

Research is defined by Leedy and Ormrod (2014:2) as “the systematic process of collecting, analysing and interpreting information (data) to increase our understanding of a phenomenon that we are interested in or concerned about”. Leedy and Ormrod (2014:6) maintain that research starts with a problem or an unanswered question in the mind of the researcher. Mouton (2013:53) similarly posits that research problems implicitly or explicitly embody a research question and that research designs are tailored to address different types of questions.

A distinction should be made between empirical and non-empirical questions. Empirical questions require that new data need to be collected or existing data be analysed to resolve the question in mind. Non-empirical questions may, on the other hand, be resolved through an analysis of the body of scientific knowledge. Empirical questions comprise of exploratory questions (What?), descriptive questions (How many or Are x and y related?), casual questions (Why, What is the causes of y?), evaluative questions (What was the outcome, Has x been successful?), predictive questions (What will the effect of x be on y?), and historical questions (what led to? What caused x?). Non-empirical questions, on the other hand, entail meta-analytic questions, conceptual questions, theoretical questions and philosophical/normative questions (Mouton, 2013:53).

Salkind (2012:10), in addition, distinguishes between two general categories of research, namely, non-experimental and experimental research. He maintains that non-experimental research examines the relationship between variables, but does

not, or cannot test casual relationships between variables, whereas experimental research sets out to discover cause-and-effect relationships between variables.

Salkind (2012:12) identifies the following non-experimental research methods:

- descriptive research which describes the characteristics of an existing phenomenon and focuses on events that occur in the present;
- correlational research which examines the relationship between variables; and
- qualitative research methods which aim to examine human behaviour in the social, cultural and political contexts in which they occur through the use of a variety of tools such as interviews, historical methods, case studies and ethnography, and which normally results in qualitative or non-numerical data.

Mills and Birks (2014:27) argue that a well-structured research question drives the selection of an appropriate methodology and the development of the research design. However, they posit that qualitative research cannot be separated from the personal philosophy of the researcher. They maintain that in so far as qualitative research aims to contribute to what is known about a phenomenon, it relies on philosophical thought as the foundation to frame the generation of knowledge.

Ontology and epistemology are two metaphysical philosophical concepts relevant to qualitative research. Mills and Birks (2014:21) maintain that ontology is the study of being and that research in the qualitative domain requires an understanding of the ontological concepts of existence and reality. They explain that existence refers to the ‘that” and “how” of something that is in the world, while the essence of something is the “what” it is. They further maintain that a distinction between these concepts is palpable in the research context of quantitative versus qualitative research, in particular, so far as the exploration of truth and reality is concerned.

In a positivistic quantitative study, scientific methods are used to determine facts, and make predictions or offer explanations based on these facts. Petty, Thomson and Stew (2012), quoted by Mills and Birks (2014:22), define a fact as “a single objective reality that can be measured consistently”. From a realist’s perspective, these are elements that exist in their own right, beyond our social construction (Kilduff *et al.*, 2011, cited by Mills & Birks, 2014:22). Mills and Birks (2014:22) advise that the non-positivistic philosophical movements reject the concept of a single

objective reality, and propose the existence of multiple realities that acknowledge the significance of subjective interpretation.

Mantzoukas (2004:1000) concurs that qualitative research emerging from the non-positivistic paradigm accepts that there is no single truth or absolute reality, suggesting that "truth and reality" are always plural and will, to a greater or lesser degree, include individual and subjective viewpoints of the truth, reality and what can be learned. From a "relativist" perspective, truth is thus subject to various interpretations as a social construct.

While ontology explores the concepts of reality, epistemology examines how it is possible to gain knowledge of this reality (Mills & Birks, 2014:22). They maintain that knowledge of the truth can be established through deductive and inductive processes. Deduction is fundamental to the positivist paradigm, where truth and facts are the products of the enquiry.

The complexity of humanity and society falls in the qualitative research paradigms, where various means are used to achieve the alignment of beliefs with reality. According to Mills and Birks (2014:23), induction, as a qualitative research method, can generate theory, while deduction, as a quantitative research method, aims to test the theory.

Mouton (2013:114) identifies and defines three types of reasoning, namely:

- Deduction, which involves drawing conclusions from premises (other statements) that necessarily follow from such premises;
- Inductive generalisation, which involves applying inferences from specific observations to a theoretical population.
- Retroductive reasoning, which is another form of inductive inference, uses inferences from observations or data to construct an explanation of such observations.

In line with the above, Mills and Birks (2014:20) emphasise that qualitative researchers are often drawn to research paradigms other than positivism, such as post-positivism, post-modernism, critical theory and interpretivism (constructivism) because they permit assumptions about perceptions of reality and knowledge that align with the researcher's area of enquiry. An interpretivist paradigm recognises that

reality is constructed by those who experience it, and research is thus a process of reconstructing that reality.

The purpose of this study is to gain knowledge from constituents based on their experiences as academics involved in the teaching of risk management and risk practitioners. The outcome is based on the lived experience of the constituents, which falls in an interpretivist paradigm and phenomenological methodology. A phenomenological study is defined by Leedy and Ormrod (2014:150) as “a study that attempts to understand people’s perceptions, perspectives and understanding of a particular situation”. Leedy and Ormrod (2014:150) maintain that phenomenological studies depend almost exclusively on lengthy interviews with a carefully selected sample of constituents who have had direct experience with the phenomenon being studied.

1.7.2 Data collection techniques

The study comprised of two parts:

Part 1 of the study entailed the collection of secondary data through a literature review. In Chapter 2, risk management as a discipline is defined and explored. In Chapter 3, the role and function of the risk practitioner are outlined, competencies are defined, research findings relating to risk management competencies are discussed, and the work done by professional bodies in terms of risk management competencies, are considered.

Part 2 of the study entailed a phenomenological study, where primary data was collected using an IQA instrument. The IQA study was conducted with the aid of focus group interview sessions involving a purposefully selected sample of academics teaching risk management at public universities in South Africa and risk management practitioners actively involved in the management of risk. Digital recordings were used to capture the responses and the responses were transcribed for use in the analysis of the data.

IQA is defined by Northcutt and McCoy (2004:299) as a “qualitative data-gathering and analysis process that depends heavily on group processes to capture a socially constructed view of the constituent’s reality”. IQA is a system-based qualitative methodology grounded in the systems theory, and uses an interpretive approach by

means of identifying focus groups and conducting focus group interview sessions and individual interviews with these different groups or constituencies to gain an understanding of an identified problem (Robertson, 2015:12). This study aimed to capture the views of the constituents in an open-ended way to analyse and interpret their worldviews.

The IQA approach used in this study is described in more detail in Chapter 4.

1.8 ETHICAL CONSIDERATIONS

Mouton (2013:239) maintains that the ultimate goal of science is the truth. He refers to it as the *epistemic imperative* of science, being the moral commitment of scientists to search for truth and knowledge. Mouton maintains that the researcher has the right to search for truth, but not at the expense of the rights of other individuals in society. Mouton (2013:238) concurs that the ethics of science is concerned with what is right or wrong in the conduct of research, and that such conduct should conform to the accepted norms and values, as determined by the scientific community and enforced by professional societies and associations, universities and universities of technology and funding agencies.

Guillemin and Gillam (2004:263) maintain that there are two major dimensions in qualitative research, namely, procedural ethics and ethics in practice. Procedural ethics involves seeking approval from a relevant ethics committee to undertake research involving humans. Ethics in practice arise from conducting the actual research.

Salkind (2012:85) maintains that human beings are serving as participants in research. This is confirmed by Mouton (2013:243) who states that science cannot proceed without the participation of human and animal subjects. When conducting research it is important to protect the rights, interest and sensitivity of those being studied.

Salkind (202:85) and Mouton (2013:243) promulgate the following basic rights of subjects:

- Right to be protected from harm. Conducting research should not expose subjects to any physical, psychological and emotional harm.

- Right to privacy. Mouton (2013:243) maintains that people have a right to refuse to partake in the research. Salkind concurs that people should not be forced to participate in a study. The right to privacy is also directly concerned with the protection of the anonymity of participants (Salkind, 2012:86) and the confidentiality of information (Mouton, 2013:244).
- Right to full disclosure. According to Salkind (2012:86), the informed consent form or letter is the one tool that ensures ethical behaviour. He maintains that apart from being an invitation to participate in the study, these letters or forms of consent also entail a description of what will happen throughout the research. Mouton (2013:244) agrees that subjects must be informed as to what will happen during the research and that their signed consent should be obtained, in addition to obtaining permission from an ethics committee.

In terms of Unisa's policy on research ethics (2014:5), it is the responsibility of the researcher to ensure that he or she does not undertake research without ethical clearance. In terms of the policy, Unisa promotes four internationally recognised principles of ethics as the basis for research:

- Autonomy, which entails respecting the autonomy, rights and dignity of research participants.
- Beneficence, which refers to the positive contribution research should make towards the welfare of people.
- Non-maleficence, which implies that research should not cause harm to the participant(s) in particular, or people in general.
- Justice, which refers to the fair distribution of the benefits and risks of research among people.

Certain general ethical principles are also put forward in Unisa's policy on research ethics (2014:10), namely:

- All research should be conducted in pursuit of knowledge or public good;
- Research should be conducted for the benefit of society;
- Researchers should be personally and/or professionally qualified for the research undertaken;

- Researchers should respect and protect the dignity, privacy and confidentiality of participants;
- Researchers should respect cultural differences;
- Criteria for the selection of participants should be fair and scientific;
- The conduct of research must be honest, fair and transparent; and
- The benefits of the study should outweigh any possible risks.

In line with the ethical guidelines, as listed above, the aim of the current study was explained to all the participants. Participants were required to sign a consent form, which detailed that participation was voluntary and information would be treated confidentially. The anonymity of participants would be protected and no names would appear in the research report. Informed consent was obtained from respondents where direct quotations were made in the report. The study was conducted following the ethical guidelines for research prescribed by UNISA. Unisa's ethical clearance approval for the study is provided in Appendix A.

1.9 LIMITATIONS AND DELIMITATIONS

The research is limited to academics teaching risk management at public universities in South Africa and risk practitioners actively involved with the management of risk in South Africa. The study is limited to the identification of risk management competencies needed by current and future risk practitioners to function in the increasingly challenging risk management environment. The design of a curriculum framework or curriculum for a specialised undergraduate degree in risk management does not form part of this study.

The study had a potential limitation in terms of the availability of participants, and the funding available for the collection and analysis of data and the transcribing of interviews.

1.10 STRUCTURE OF THE STUDY

The following chapters explore relevant risk management theory and trends, investigate the role and profile of a risk professional, define competencies, and conduct research concerning risk management competencies.

Finally, the study will offer an insider's perspective into the competencies envisaged for future risk management practitioners. The study concludes with a set of conclusions and recommendations about risk management competencies and the implications thereof in the design of a specialised undergraduate degree in risk management.

The remainder of the dissertation is organised according to the following chapters:

Chapter 2: Risk management in perspective

A review of relevant literature on risk and risk management is done in this chapter. The literature supports the research objectives and design of the discussion guide. The chapter includes an overview of *risk* and *risk management* as concepts and the ERM principles, framework and process.

Chapter 3: Concepts and context of competencies

The role and position of risk professionals in an organisation, their tasks and functions and the personal profile of a typical risk professional are investigated in this chapter. A review of relevant literature on competencies and risk management competencies is also done in this chapter. *Competencies* are defined and secondary research findings relating to risk management competencies are discussed. Consideration is also given to work done by professional bodies in terms of risk management competencies.

Chapter 4: Research Methodology

IQA as the methodology for collecting data necessary for this study is discussed.

Chapter 5: Findings and discussion

Describing, analysing and interpreting the data obtained using the IQA study is done.

Chapter 6: Summary, conclusion and recommendations

Reaching conclusions and suggesting possible implications concerning the design of a specialised undergraduate degree in risk management.

1.11 SUMMARY

This study aims to develop a list of risk management competencies that could serve as the foundation for the design of a specialised undergraduate degree in risk management.

This chapter provided an overview of the context in which the study was conducted. It explained the reason and need for the study, defined the research questions and objectives and outlined the research design. Ethical considerations were also discussed. This chapter provided a background in support of the next chapters, starting with examining the risk management phenomenon. The purpose of Chapter 2 is to examine the terms “risk” and “risk management” and to discuss the different components of risk management. The chapter will serve as a foundation and background for Chapter 3 in which the role and function of risk practitioners will be investigated, followed by an investigation into the competencies required by practitioners to perform their risk management tasks.

CHAPTER 2:
RISK MANAGEMENT IN PERSPECTIVE

2.1 INTRODUCTION

Farrell and Gallagher (2014:628) state that over the past two decades the role of risk management in organisations has changed, alongside the rapid changes occurring in the world. The Institute of Risk Management (IRM) (2018:6) believes that the global financial crises in 2008 triggered an awareness of, and interest in risk and risk management in all organisations, and that there is an increased appreciation for the benefits of the proactive, explicit and structured management of risks.

The International Organization for Standardization (ISO) (2018:v) emphasises that all organisations face external and internal factors and influences that give rise to uncertainties in terms of the achievement of their organisational objectives. ISO continues that managing risks is iterative and assists organisations in setting their strategies, achieving their objectives and making informed decisions. ISO views risk management as part of governance and leadership, and as fundamental to the improvement of management systems at all levels of an organisation. ISO (2018:2) states that the purpose of risk management is the creation and protection of value by improving performance, encouraging innovation and supporting the achievement of objectives.

Hopkin (2018:23) emphasises that the risk management profession and the risk expertise of risk professionals continue to develop in line with the ever-increasing expectations being placed on risk managers and risk consultants. This statement aligns with the research problem of this study formulated as: *What are the risk management competencies that should be covered by a specialised undergraduate degree in risk management?*

To answer this question, it is necessary to have a very clear picture of what risk and risk management entail, including an understanding of the evolvement of the discipline over the past few decades. To provide context to the research question, this chapter will review the relevant literature on the concepts of *risk* and *risk*

management, the evolvement of risk management towards an Enterprise Risk Management (ERM) approach, and the standards, guidelines and frameworks available to enhance the implementation of risk management.

The next section discusses the concepts of risk and risk management, and the evolvement of these concepts.

2.2 THE CONCEPTS OF RISK AND RISK MANAGEMENT

2.2.1 Defining risk

Different views and meanings of risk have been established over the past few years. Risk was traditionally viewed as something negative that had to be avoided or of which the consequences needed to be minimised. Earlier scholars in the field of insurance, such as Vaughan and Vaughan (1995:4), explain that the term “risk” was defined in the insurance textbooks that were used by colleges and universities at that stage, as the “chance of loss”, “the possibility of loss”, “the dispersion of actual from expected results” or “the probability of any outcome different from the one expected”. Valsamakis, Vivian and Du Toit (2010:31) are of the opinion that where risk is seen as the uncertainty about loss, it is indicative of an orientation towards insurance, rather than risk management, and a bigger concern about the financial treatment of the consequences of the event, than with the business of managing the risk.

Valsamakis *et al.* (2010:27) recognise both the potential positive and negative aspects of risk, and maintain that the notion of risk comprises the following number of elements:

- **Outcomes:** Risk outcomes can either be positive or negative and can occur in any part or section of an organisation. Risk management should therefore not be confined to a particular part of an organisation but should extend throughout the organisation. Outcomes may be expressed in monetary value, although not all outcomes are monetary in value. Outcomes in terms of risk management may be anticipatory, rather than based on past outcomes, suggesting that risk management requires the collection and analysis of data.
- **Events:** Negative outcomes can be traced to a specific time and place, while positive events may not necessarily be confined to a specific event. Profits are,

for example, generated over a period of time. All events can be recorded and be subjected to statistical analysis.

- **Sources:** The cause of an outcome can normally be traced to specific sources. Risk involves the source of loss, referred to as a peril.
- **Environmental factors:** Environmental factors, referred to as hazards, may influence the probability and variability of outcomes, making a specific outcome more hazardous than other outcomes.

Valsamakis *et al.* (2010:29) maintain that risk implies uncertainty surrounding the outcome of the event, and that the extent of the uncertainty between the actual outcome and the expected outcome determines the level of risk. They argue that managing risk does not only imply the financial provision for the negative consequences of an event, but also involves the efforts to reduce and minimise the likelihood of the loss-producing event occurring, and the efforts to reduce or minimise the adverse effects once the event has occurred. In line with these comments, Valsamakis *et al.* (2010:31) define risk "as a deviation from the expected value" which implies the presence of uncertainty with regard to the occurrence of a loss-producing event and uncertainty with regard to its outcome. They maintain that the degree of risk is interpreted with reference to the degree of variability and not with reference to the probability that it will display a particular outcome.

Vaughan (1997:7) explains that economists, statisticians, decision theorists and insurance theorists have long discussed the terms "risk" and "uncertainty" in an attempt to construct a definition that is useful for analysis in each field of investigation. Each group, however, originates from a different field of study which requires the use of different concepts. Although they all use the term "risk", a different meaning of the term is attached by the different groups. Valsamakis *et al.* (2010) agree that the context in which risk can be viewed is so diverse that no single definition is sufficient to cover all possible risks. This gives rise to interpretations and definitions suited only to specific areas of study or disciplines. To complicate matters further, Vaughan (1997:4) points out that even in an industry such as insurance, the term risk is either used to refer to the peril insured (for example, fire) or to the person or property protected by insurance (for example, young drivers are not considered a good risk).

Young (2018:2) agrees that people and institutions have different views and opinions of risk. Some perceive risk as a potential threat, while others view risk as a potential opportunity to gain an advantageous position. Both sides entail some uncertainty. To define risk, the concept of uncertainty should be included in the definition. In line with this, Young (2018:2) defines risk as "the uncertainty of an event that could cause a loss or ensure a positive outcome if such event occurs". He maintains that the level of risk is measured by the level of uncertainty; the more uncertain the outcome of an event, the higher the risk, and the more certain the outcome, the lower the risk.

Bernstein, in his work, *Against the Gods: The Remarkable Story of Risk*, as quoted by Elliott (2012:1.3), explains that the term risk derives from the early Italian *riscare,* which means "to dare". Bernstein maintains that in this sense, "risk is a choice rather than a fate and when we take a risk, we are betting on an outcome that will result from a decision we made, though we do not know for certain what the outcome will be". Elliott (2012:1.3) concludes that Bernstein's statements about risk reflect the definition of risk used in the Associate in Risk Management (ARM) designated programme offered by The Institutes, the knowledge development section of the American Institute for Chartered Property Casualty Underwriters (ACPCU), as being "uncertainty about outcomes that can be either negative or positive", and that this definition reinforces Bernstein's concept that risk is a choice, not merely something that might happen.

In response to the increasing awareness of risk management and the movement towards a more integrated approach towards risk, various industry standards, frameworks and reports were developed in support of the design and implementation of risk management plans and frameworks. These include the Committee of Sponsoring Organisations of the Treadway Commission (COSO) Enterprise Risk Management – Integrated Framework of 2004 (revised in 2017), The International Organisation for Standardization (ISO) International Standard ISO31000, Risk management – Principles and guidelines of 2009 (revised in 2018), and the King IV report on Corporate Governance for South Africa published in 2016 (King IV Report), to name a few.

IRMSA also developed its Guideline to Risk Management, which serves as a base document to guide organisations in South Africa on the planning, implementation, evaluation and improvement of risk management, irrespective of the organisation's

size, industry or sector. As it is intended to be used by both South African and international companies, it draws on standards, such as ISO31000, considers codes of governance principles such as King IV report, and is aligned to South African legislation.

Each of these standards and frameworks defines risk in an attempt to establish an acceptable and common understanding of risk across all sectors and types of organisations.

ISO31000:2018 defines risk as the "effect of uncertainty on objectives*".* They elaborate on this definition by means of the following explanatory notes:

- Note 1: An effect is a deviation from the expected. It can be positive, negative or both, and can address, create or result in opportunities and threats.
- Note 2: Objectives can have different aspects (such as financial, health and safety, and environmental goals (ISO31000, 2009:2) and categories, and can apply at different levels (such as strategic, organisation-wide, project and process (ISO 31000, 2009:2).
- Note 3: Risk is usually expressed in terms of risk sources (an element which alone or in combination has the potential to give rise to risk); potential events (an occurrence or change of a particular set of circumstances); their consequences (an outcome of an event affecting objectives); and their likelihood (chance of something happening).

The King IV report on Corporate Governance for South Africa, 2016 (King IV Report) broadly based their definition of risk on the ISO definition of Risk (ISO Guide 73:2009) and maintains that risk is the "uncertainty of events; including the likelihood of such events occurring and their effect, both positive and negative, on the achievement of the organisational objectives. Risk includes uncertain events with a potentially positive effect on the organisation (i.e. opportunities) not being captured or not materialising".

The COSO ERM 2017 Framework defines risk as "the possibility that events will occur and affect the achievement of objectives".

IRMSA (2014) aligned its definition of risk with ISO31000 (2009) and defines risk as "the effect of uncertainty on objectives".

This section has shown the evolvement of the term risk from traditionally being viewed as a threat with only negative consequences, towards a broader view, where both the negative and positive effect of risk on the achievement of objectives are considered.

Hopkin (2018:66) maintains that risk management has a variety of origins and is practised by a wide range of professionals. Some of these origins and applications will be highlighted in the discussion on the evolvement of risk management in the next section.

2.2.2 The evolvement of risk management

Bénéplanc and Rochet (2011) believe that taking risks and managing them has always been a fundamental part of any human activity, from hunting or fighting for and conquering new lands to the development of modern corporations. However, risk management is a relatively recent corporate function, for example, according to Georges (2013:3), modern risk management only started after 1955. In agreement, Vaughan (1997:27) notes that the usage of the term risk management started in the early 1950s. He mentions that one of the earliest references to the concept in academic literature appeared in an article in the *Harvard Business Review* in 1956. In the article, the author proposed that someone in the organisation should be responsible for managing the pure risks of the organisation. Vaughan points out that, at the time, many large organisations had a staff position referred to as “insurance manager”. Gradually the insurance-buying function was assigned as a specific responsibility to in-house specialists. Vaughan points out that although risk management has its roots in corporate insurance buying, it would be a distortion to say that risk management evolved from corporate insurance buying. He believes that the emergence of risk management signalled a dramatic, revolutionary shift in philosophy, occurring when attitudes towards insurance changed.

In addition, Georges (2013:3) states that the traditional role of the insurer was seriously questioned in the USA in the 1980s, sparked by the liability insurance crisis characterised by exorbitant premiums and partial risk coverage and the development of alternative forms of protection from various risks, such as captives, risk retention groups and finite insurance. Vaughan (1997:27), in agreement, adds that the more sophisticated corporate managers came to realise that there might be a more cost-

effective manner of dealing with risks. For example, a more effective approach would be to prevent losses from happening in the first place, and to minimise the economic consequences of losses that could not be prevented.

In line with this, Williams, Smith and Young (1995:20) state that post-1960 larger organisations reduced their reliance on more conventional insurance arrangements, as risk managers discovered that some risks were not insurable, or that insurance did not meet specific organisational needs, or that certain internal activities could control the impact of risk and uncertainty on the organisation. They maintain that the cumulative effect was the expansion of the insurance buying/risk management function and an important shift away from insurance buying. Williams *et al.* (1995:20), however, point out that despite the apparent evolvement of risk management to a broader management function, organisations in the mid-1950s persisted in viewing risk management as a sub-function of finance. This manifested in the placement of risk managers either in the financial or purchasing departments of organisations.

Williams *et al.* (1995:21) emphasise that although insurance buying is clearly the foundation of risk management as it is today, it is also worth mentioning other influences that played a role. They maintain that attorneys in organisations have had a major influence on the management of liability risks, while operations management experts have influenced the development of strategies for coping with risks arising from the organisation's activities. They point out that safety management has for a long time not been recognised, and has been integrated into risk management, mainly due to the fairly technical orientation of safety engineering.

In terms of the practice of risk management, authors such as Williams *et al.* (1995:21) and Hawkins (2001:6) believe that the field began to gain wider acceptance in the 1970s and the 1980s, and that risk practices began to increase in sophistication. Georges (2013:3) confirms this viewpoint by pointing out that the concept of risk management in the financial sector was revolutionised in the 1970s when financial risk management became a priority for many companies, including banks, insurers and non-financial enterprises. The movement was sparked by various price fluctuations, such as risk related to interest rates, stock market returns, exchange rates and prices of raw materials or commodities.

Georges (2013:3) mentions that the use of derivatives, such as forward contracts, options, futures and swaps, were increasingly being used during this time to increase flexibility and to reduce the cost of traditional hedging activities. She notes that although derivatives were initially developed as a form of insurance to protect individuals and companies against major fluctuations in risk, speculation quickly arose in certain markets, creating other risks that were increasingly difficult to control or manage.

Georges (2013:2) adds that during the 1980s, financial risk management became complementary to pure or downside risk management for many companies. Financial institutions intensified their market risk and credit risk management activities during the 1980s, while operational risk and liquidity risk management emerged in the 1990s. She maintains that this led to a more general definition of risk management, where risk management decisions were seen as “financial decisions that must be evaluated based on their effect on firm or portfolio value, rather than on how well they cover certain risks” (Georges, 2013:4).

Chapman (2011:5) believes that the evolving nature of risk and expectations about its management have placed previous working practices under pressure in terms of risk management. He points out that traditionally risk management has been segmented and carried out in silos. The tendency was to compartmentalise risks into distinct, mutually exclusive categories. Hardy (2015:36), in agreement, adds that previous risk management practices viewed risks as threats, and focused on the avoidance of negative events; risk was treated as a separate function, and risk was continuously managed independently in silos.

Rochette (2009:395) maintains that most risk professionals emphasised the negative aspect of risk-taking activities. He maintains that traditional value-at-risk (VAR) measures, for example, used as the risk metric for trading portfolios, were usually taken as a one-sided estimate, while the credit models used to forecast credit losses only focused on the potential portfolio losses, and the methods used for operational risk again focused mostly on the estimation of losses. He warns that these risk estimates were made in silos, and never seem to embed and measure the potential for growth as afforded by the involvement in core risky activities.

Earlier definitions of risk management confirm this approach:

- Dorfman (2008:8) defines risk management as “the logical process used by businesses and individuals to deal with their exposures to loss. It is a strategy of pre-loss planning for post-loss resources. Risk management describes an ongoing process for dealing with the possibility of loss”.
- Valsamakis *et al.* (2010:12) define risk management as “a managerial function aimed at protecting the organisation, its people, assets and profits against the physical and financial consequences of risk. It involves planning, coordinating and directing risk control and the risk financing activities in the organisation”.

DeLoach (2004:30) warns that past conventions and attitudes about “risk as a threat” have resulted in a narrow view of the role of risk management in a business; a view that ignores reality. Chapman (2011:6) concurs and cautions that there should not be a preoccupation with downside risk and that the management of both upside and downside risks is at the heart of business growth and wealth creation. Chapman states that unless companies take risks, they die, and to be successful, companies must be open, positive and proactive about the risks they face.

Chapman (2011:5) further believes that the traditional view towards risk management was the result of humans subdividing problems to manage them, the need to allocate tasks in an existing organisational structure, and the underlying assumption that the consequences of an unforeseen event will be more or less confined to one given area. He continues that the fallout from unforeseen events actually tends to affect multiple business areas, and the interrelationships between risks under the categories of operational, financial and technical risk were overlooked, often with adverse outcomes.

Moeller (2011:52) adds that organisations and individuals used to balance the amount of risk they were willing to accept against the potential and adjusted returns from accepting most risks, referred to as the risk-return trade-off. He continues that over the years, organisations have had two problems with the risk-versus-adjusted return decision-making. The first risk-versus-return problem results from the absence of a proper and consistently accepted definition of risk across the enterprise, together with a narrow concentration on individual risks, without considering the big-picture of enterprise issues. Moeller continues that the second risk-versus-return

problem resulted from the silo approach to the understanding of risks rather than considering risks on a total enterprise level.

Hardy (2015:36) reiterates that organisations gradually began to integrate risk by accepting risk as an expense, shifting their focus to managing risks and recognising risk managers as risk owners. She believes that at present organisations are working toward a broader view of risk, understanding that risk is an uncertainty, shifting the focus to risk optimisation, and advocating risk managers as risk facilitators and leaders.

This movement is also evident in broader definitions of risk management:

- Moeller (2011:32) proposes that risk management should be considered a "four-step process encompassing risk identification, quantitative or qualitative assessment of the documented risks, risk prioritisation and response planning and risk monitoring". He maintains that irrespective of the approach used, whether a traditional or ERM approach to the management of risk, there is always a need to identify and understand the various risks facing an enterprise; to access these risks in terms of their cost or impact and probability; to develop responses in the event of a risk occurrence; and to develop policies and procedures to describe what happened, as well as appropriate actions going forward.
- Rossi (2014:33) describes risk management as "a collection of activities to identify, measure and ultimately manage a set of risks". He maintains that at its core, risk management is a dynamic and proactive set of processes. He believes that risk management entails the three major areas of risk identification, risk measurement and risk mitigation.
- IRMSA (2014:11) describes risk management as the "process of planning, organising, directing and controlling resources and operations to achieve given objectives despite the uncertainty of events". IRMSA maintains that effective risk management enables an organisation to manage the probability of any unforeseen events that may arise and to limit the effect of the consequences, along with responding positively to opportunities.
- ISO31000 (2018:1) defines risk management as the "coordinated activities to direct and control an organisation with regard to risk".

- Hopkin (2018:67) defines risk management as the “set of activities within an organisation undertaken to deliver the most favourable outcome and reduce the volatility or variability of that outcome”.

The above definitions all reflect that the management of both the positive (opportunities) and negative sides of risk should be considered to meet the goals and objectives of organisations. IRMSA (2014:11) proposes that risk and opportunity management is important for an organisation to maximise its ability to protect and create value. Elliott (2012:1.9) agrees that risks with a negative outcome only may prevent the organisation from meeting its objectives, while those with either a positive or negative outcome could help the organisation to meet its objectives. He continues that managing both these risks may result in the reduction of the cost of hazard risks, a reduction in the deterrent effects of uncertainty about potential future losses and a reduction in downside (negative) risk and the management thereof. This will, in return, enable the organisation to meet its objectives; maximise profitability; enhance a holistic approach to risk management; comply with regulatory requirements; reduce the waste of resources; improve the allocation of productive resources; reduce systemic risk; and benefit the broader economy in general.

IRMSA (2014:11) adds that the effective management of both risks and opportunities results in the delivery of projects and activities on time and on budget, does not adversely affect stakeholders through physical and environmental harm, and does not expose the organisation to financial and other penalties.

Elliott (2012:1.6) believes that the definitions of risk and risk management have evolved as a result of the recognition of the increased variety, number, and interaction of risks facing organisations. He believes that classifying the various types of risk can help organisations to understand and manage its risk.

The next section explains some of the risk classification approaches.

2.2.3 Risk classification

Elliott (2012:1.6) maintains that classifying risks can simplify the assessment and management of risks. Risk classes or types have similar attributes and can be managed through the use of similar techniques. Classifying risks can further help to ensure that risks in the same classification are less likely to be overlooked.

Hopkin (2018:40) distinguishes between four major classes of risk, namely, compliance or mandatory risk, hazard or pure risk, control or uncertainty risks, and opportunity or speculative risks. Hopkin (2018:59) describes mandatory risks as those related to legal obligations and guidelines. Hazard or pure risks are risks associated with negative outcomes, of which operational and insurable risks normally form part (Hopkin, 2018:40). Risks that give rise to uncertainty with regard to its outcomes are classified by Hopkins as control or uncertainty risks and are normally very difficult to quantify. The management of these risks will concentrate on reducing the variance between actual and expected results. Hopkin (2018:41) explains that organisations also deliberately take risks to achieve a positive outcome. He refers to these types of risks as opportunity or speculative risks. He explains that there is a risk involved in taking the opportunity and also by not taking the opportunity. Hopkin (2018:61) further points out that opportunity risks are directly influenced by the risk appetite and capacity of the organisation, and that opportunity management is directly linked to strategic planning.

Hopkin (2018:40), in addition, maintains that each risk has its own characteristics that require particular management or analysis. He proposes that organisations will generally seek to minimise compliance risks, mitigate hazard risks, manage control risks and embrace opportunity risks.

Hopkin (2018) and Elliott (2012:1.23) maintain that there is no right or wrong subdivision of risk but that the more commonly used risk classification system distinguishes between pure and speculative risks. Elliott (2012:1.23) describes pure risk as a “chance of loss or no loss”, with no opportunity for financial gain, making it an undesirable risk. Speculative risks have the potential of a positive, negative, or no change result, creating an opportunity for financial gain. Valsamakis *et al.* (2010:43) distinguish between two major subcategories of speculative risks, namely, inherent or core business risk and incidental risk. Inherent business risk refers to risk factors that might have a positive or negative effect on the gross profit of the business, while incidental risks refer to aspects that might have a positive or negative effect on the net income of the business. The major class of incidental risks is referred to as financial risks, and includes among others, interest rate risk, market risks, credit risks, liquidity risk, capital risk, investment risk and currency risk. These types of risks are traditionally not considered insurable.

Insurance efforts have traditionally focused on pure risks. However, not all pure risks are insurable. It is, therefore, also important to distinguish between insurable and non-insurable risks. A distinction could also be made between fundamental and particular risk. Fundamental risks are defined by Valsamakis *et al.* (2010:38) as risks that arise from “losses of an impersonal nature and consequence, and which affect large parts of society or even the world”. These losses normally arise from the political and economic interdependencies of society and catastrophic events. Social insurance, rather than commercial insurance, might need to be considered as a mitigation alternative. Particular risks, on the other hand, refers to losses originating from discrete occurrences and normally impact an individual or particular groups of people, such as losses due to motor car accidents, fire, theft, and liability claims, to name a few. Particular risks can be mitigated through commercial insurance.

Elliott (2012:1.26) states that both risk management and insurance depend on the ability to objectively identify and analyse risk. He maintains that decisions made concerning risk are normally based on the organisation’s or individual’s assessment of the risk, which can be based on opinions (subjective) or facts (objective). The closer the subjective interpretations of risk are to the objective interpretations, the more effective its risk management plan will be. Aspects, such as familiarity and control, consequences over likelihood, and risk awareness are listed by Elliott as factors influencing opinions and or perceptions on risk.

Elliott (2012:1.26) explains that risks can also be divided into diversifiable and non-diversifiable risks. Diversifiable risk is not highly correlated and can be managed through the spreading of diversification. Non-diversifiable risks are correlated, implying that their gains or losses tend to coincide, rather than occur randomly. Examples of non-diversifiable risks include inflation, unemployment and natural disasters. Elliott maintains that systemic risks are generally non-diversifiable, and points out that because of global interconnections in finance and industry, many risks that were once viewed as non-systemic (affecting only one organisation) are now viewed as systemic.

Elliott (2012:1.26) holds that one of the alternative approaches to risk categorising involves dividing risk into the following risk quadrants:

- **Hazard risks** arise from property, liability or personnel loss exposures and are generally the subject of insurance.
- **Operational risks** arise from people or a failure in processes, systems and controls, including those involving information technology.
- **Financial risks** arise from the effect of market forces on financial assets or liabilities and include market risk, credit risk, liquidity risk and price risk.
- **Strategic risks** arise from trends in the economy and society, including changes in the economic, political and competitive environments, as well as from demographic shifts.

Elliott (2012:1.26) concludes that hazard and operational risks are classified as pure risks, while financial and strategic risks are classified as speculative risks. He points out that where other classifications focus on some aspect of the risk itself, the four quadrants of risk focus on the risk source and who traditionally manages it. Elliott (2012:1.26) points out that traditional risk management was primarily concerned with hazard risk. Hopkin (2018:41), in agreement, maintains that the application of risk management tools and techniques to manage hazard risks is the longest-established branch of risk management and that emphasis is placed on mitigating these risks.

Hopkin (2018:41) proposes that organisations, to identify and allocate risk responsibilities, introduce a system of describing each risk in terms of the name of the risk, scope and nature of the risk, stakeholders involved, risk attitude, appetite and tolerance, likelihood and magnitude of the event, control standard required, incident and loss experience, existing control mechanisms, responsibility for developing risk strategy and policy, potential and recommendations for risk improvement, and responsibility for implementing improvements, as well as responsibility for auditing risk compliance.

Hopkin (2018:40) proposes that individual organisations should decide on a risk classification system best suited to the nature of the organisation and its activities. He emphasises that many risk management standards and frameworks suggest a specific risk classification system, and where an organisation adapts a specific standard, it will most probably follow the recommended classification system.

Hopkin (2018:28) opines that failure to adequately manage the risks facing an organisation may be caused by inadequate risk recognition, insufficient analysis of risks, failure to identify suitable risk responses, and not setting a risk management strategy or not communicating the set strategy and associated responsibilities. He adds that failures might also be attributed to flawed risk management processes and protocols.

The Association of Insurance and Risk Managers (AIRMIC), The Public Management Association (ALARM) & The Institute of Risk Management (IRM) (2010:3) point out that risk management is a process that is underpinned by a set of principles, and that it should be supported by a structure that is appropriate to the organisation and its external environment or context. AIRMIC, ALARM & IRM (2010:3) and Hopkin (2018:28) emphasise that a successful risk management initiative should be proportionate to the level of risk in the organisation (as related to the size, nature and complexity of the organisation), aligned with other corporate activities, comprehensive in its scope, embedded into routine activities, and dynamic by being responsive to changing circumstances.

Hopkin (2018:21) expounds on the benefits of implementing an ERM initiative to enhance the ability of organisations to achieve their objectives, and to ensure sustainability based on transparent and ethical behaviour. ERM will be defined and discussed in the next section.

2.2.4 Enterprise Risk Management

Beasley *et al.* (2006:50) maintain that the ERM approach to risk management began to emerge in the late 1990s in response to the inadequacy of the silo-based approach in managing increasingly interdependent risks. According to Beasley *et al.* (2006:50), early adopters of the ERM approach recognised that changes in technology, globalisation, corporate financing and numerous other risk drivers were increasing the complexity and volume of risk, which led to the realisation that the traditional approaches were no longer effective in identifying, assessing and responding to a growing array of risks across a complex enterprise.

Elliott (2012: 1.29) concurs and maintains that whether the source of risk is financial, hazardous, operational or strategic, risks managed separately are not the same as when managed together.

Layton (2008:2), however, cautions that silos present both advantages and disadvantages. He maintains that on the positive side, it enables specialisation which is an essential component of intelligent risk management, while on the negative side, specialists work in organisational and often physical isolation. He agrees that in its extreme, silos can become miniature ecosystems, each with its own culture, jargon and practices. Layton maintains that such a siloed state can lead to problems such as duplication of effort, risk of unidentified gaps, lack of standard methodology, increased burden on the business, lack of appropriate reliance on one another's work, absence of information-sharing, and a lack of understanding and management of the totality of risks facing the organisation. Layton believes that the integration of risk management information across organisational boundaries must be promoted by facilitating the development of a uniform corporate governance, risk management and compliance (CRC) framework, which is technology-enabled. This will bring about a better understanding of risks and how risks interact to help the organisation formulate a stronger response to risk.

Ballou and Heitger (2005:1) concur, and note that as a result of highly publicised business failures, scandals and fraud, present-day senior managers are required to comply with a series of laws, regulations and listing standards that call for strengthened corporate governance and risk management.

Beasley *et al.* (2006:50) believe that an ERM approach seeks to strategically consider the interactive effects of various risk events, intending to align an enterprise's entire portfolio of risks with the stakeholders' appetite or risk tolerance. Chapman (2011:5) agrees that ERM is seen as a more robust method of managing risk and opportunity, and is designed to improve business performance. He maintains that ERM is about understanding the interdependencies between the risks, how risk materialising in one area may increase the impact of risks in another business area, and how risk mitigation actions can address multiple risks spanning multiple business sectors.

Chapman (2011:1) cites that an event, such as the terrorist attacks on the World Trade Centre in 2011, showed that risk exposures had not been fully understood and risk management practice has been inadequate. He also notes that the bankruptcy of major companies, such as Enron and WorldCom, exposed the ineffective corporate governance and "soft belly" of risk management. According to Chapman

(2011), the bankruptcies mentioned above arose mainly from a lack of integrity in financial reporting, a lack of compliance with regulations, and operational failures.

In addition, the failure to properly understand and manage risk has been cited as the leading cause of the global financial crisis of 2007-2010. Chapman (2011) notes that boards were accused of being dysfunctional, greedy and reckless, and there has been a lack of appreciation of risk at both business and a macro or industry level. Systemic risk in the financial industry has, furthermore, not been recognised, understood or addressed.

Louisot and Ketcham (2014:4) remark that in this context, the traditional and static approach to risk management has become obsolete. They believe that it is time for a dynamic and global vision, identifying recently identified "black swan" risks, such as the interconnected effects of global supply chains, terrorism and the more recent Covid-19 pandemic. They emphasise the need to encompass the world of threats and opportunities, not only from an inside-out view formed at the board level but enlightened by an outside-in view, reflecting the expectations and fears of main stakeholders.

John Flaherty, the first chairman of COSO, as cited by Moeller (2011:52), pointed out that although a lot of people were talking about risk, there was no commonly accepted definition of risk management, and no comprehensive framework outlining how the process should work, making risk communication among board members and management difficult and frustrating. In response to this, COSO developed and drafted the COSO ERM Framework published in September 2004, in which the following definition of ERM was incorporated:

> *Enterprise risk management is a process, effected by an entity's board of directors, management and other personnel, applied in a strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.*

Moeller (2011:53) highlights the following key points to be taken from the definition cited above:

- ERM is a process, not a static procedure. The process, in this sense, must be seen as a more flexible arrangement. Risk management should therefore not be considered as a set of rules but as a series of documented steps to review and evaluate potential risks and to take action based on a wide range of factors across the entire enterprise.
- ERM processes are implemented by people in the enterprise. Moeller (2011:54) emphasises that the risk management process must be managed by people who are close enough to the particular risk situation to understand the various factors surrounding that risk, including its surroundings.
- ERM is applied by setting strategies across the overall enterprise. Moeller (2011:54) maintains that ERM should be applied across an entire enterprise by using a portfolio type of approach that blends a mix of high- and low-risk activities.
- Concepts of risk appetite must be considered. Moeller (2011:54) explains that risk appetite is the amount of risk, at a broad level, that an enterprise and its individual managers are willing to accept in their pursuit of value. He maintains that the idea is that every manager and, collectively, every enterprise should have some level of risk appetite.
- ERM provides only reasonable, not positive assurance on objective achievements. Moeller (2011:54) emphasises that reasonable assurance cannot guarantee absolute assurance, as unforeseen events might have negative effects, despite the organisation having an effective ERM process in place.
- ERM is designed to help attain the achievement of objectives. Moeller (2011:54) explains that the management of an enterprise should establish high-level common objectives that can be shared by all stakeholders.

Hopkin (2018:32) and Anderson and Sax (2020:47) point out that COSO published an updated version of the 2004 guidelines in 2017, focusing on the integration of the ERM initiative with strategy and performance. Anderson and Sax (2020:47) quote the revised COSO definition as, “ERM is the culture, capabilities, and practices, integrated with strategy setting and performance, that organisations rely on to manage risk in creating, preserving and realising value”.

Rochette (2009:398) views the main goal of an ERM framework as complementary to existing strategic management processes by enabling organisations to take a global, consolidated and forward-looking approach towards managing its risk and opportunities. Fox (2013:28) reiterates that RIMS confirms this view by defining ERM as a "strategic business discipline for decision-making that focuses on achieving organisational objectives, considering risk from an interconnected, full-spectrum, 'portfolio' view, and supporting management actions based on developed 'intelligence' of the combined impact". Hardy (2015:36), in support, adds that effective risk management cannot be practised in isolation, but needs to be built into existing decision-making structures and processes. She continues that although risk management in the past was seen as relating to matters of safety and insurance, the nature of this systematic approach has evolved from transactional and functional to strategic.

Blunden and Thirlwell (2012:29) define ERM as the "culture, processes and tools to identify strategic opportunities and reduce uncertainty". They maintain it is a comprehensive view of risk both from operational and strategic perspectives, and is a process that supports the reduction of uncertainty and promotes the exploration of opportunities. Young (2018:4) points out that although ERM endeavours to manage risks on an enterprise-wide basis, the uniqueness of different risk types will still require a silo approach in terms of risk management models and techniques. According to Young, the value of ERM should rather be seen from an internal control perspective, where risk exposures will be managed in a manner to optimally protect and enhance shareholder value and address the interdependencies between different risk types.

The strategic role of risk management has been highlighted in most of the definitions of ERM. For example, Kelly and Askwyth (2012:6) emphasise the importance of aligning the risk management department with the corporate objectives and direction as part of the strategic decision-making team. This view is also supported by Bugalla and Kallman (2012:30), who mention that many companies are incorporating risk management in the strategic planning process, which allows risk managers to add new value to their businesses.

Bugalla and Kallman (2012) further highlight the following major shifts in terms of ERM evolvement:

- The creation of ERM board-level committees and the recognition of the added value to governance best practice.
- A philosophical shift in the thinking about risk management, specifically in dealing with the negative outcomes and realising the upside and downside of risk. The upside is a priority when ERM is incorporated into the strategic planning process. When creating strategic plans, both threats and opportunities need to be assessed to create a more achievable strategic plan.

Although the definitions of ERM may differ, a holistic approach towards the management of all the organisation's risks to enable it to achieve the desired business outcomes forms the essence of all ERM definitions. Property Casualty Insurers and The Risk Management Society (PCI & RIMS: 2016:2) remark that the widespread adoption of ERM has been embraced by both companies and external stakeholders as a means of averting business missteps and increasing confidence in attaining the desired business outcomes. They add that standards-setting bodies such as COSO, ISO and industry regulators have incorporated ERM in the establishment of precedents and the setting of expectations in terms of effective risk management. They also point out that regulations encapsulating risk management practices and the demonstration of sufficient capital and liquidity are prevalent in the banking sector as a result of a set of measures, proposed by the Basel Committee on Banking Supervision that was incepted in 1988. Since then, various revisions to these measures were made to what is today known as Basel III.

This section discussed the evolvement of risk management from a traditional, silo approach towards a holistic, enterprise-wide approach and proposed a definition for ERM. However, Moeller (2010:15) cautions that risk and the management thereof is only one of three major issues impacting organisations. He considers good governance and the need for effective enterprise-wide compliance programmes as the other two pertinent issues. Hopkin (2018:31), in agreement, maintains that risk management is changing rapidly in terms of both the tools and techniques that are applied and the governance structure that is being introduced to ensure successful management of risk. He believes that organisations need to be more cost-conscious which led to approaches such as Governance Risk and Compliance (GRC).

Lam (2014:70), in support, notes that the aftermaths following some significant corporate failures and fraud in the 1990s and the 2008 financial crisis revealed a lack in effective risk management and board oversight over corporate and business operations as a common theme behind these institutional troubles. He mentions that this, in turn, led to an increased focus on compliance with codes of best practice for corporate governance. Corporate governance, according to Lam, is an essential element of ERM as it facilitates the top-down monitoring and management of risk.

The next section provides a brief overview of the concepts of governance, risk and compliance, followed by a brief discussion of the King Report on Governance in South Africa.

2.3 GOVERNANCE, RISK AND COMPLIANCE

The EMC Corporation, a provider of data storage, software and networks (2013:1), developed a Governance, Risk and Compliance (GRC) framework to assist organisations in meeting their governance, risk and compliance needs in the South African context, which they refer to as the "RSA GRC Reference Architecture". EMC (2013:1) defines governance as "the act of directing, controlling and evaluating the culture, policies, processes, laws, and institutions that define the structure by which organisations are directed and managed". Compliance is described by EMC (2013:1) as "an act of adhering to and demonstrating adherence to external laws and regulations as well as organisational policies and procedures".

Moeller (2011:15) describes governance as "the set of processes, customs, policies, laws and institutions affecting the way a corporation or any enterprise is directed, administered or controlled. It also includes the relationships among the many enterprise stakeholders involved and the goals for which that enterprise is governed". For his part, Hopkin (2018:357) explains that the purpose of governance is to facilitate accountability and responsibility for efficient and effective performance. He maintains that it further protects executives and employees in doing their work and ensures that stakeholders have confidence in the ability of the organisation to achieve the outcomes valued by the stakeholders.

Moeller (2011:15) believes that governance is more than compliance to rules and that it includes the organisation's need for honesty, trust, integrity, openness,

responsibility and accountability, as well as the need for mutual respect and commitment throughout the organisation. He considers compliance as a state of being in accordance with some established guidelines, specifications or legislation, or the process of becoming so.

Grebe (2014:47) notes that corporate governance was first introduced with the publication of the Cadbury Report in 1992 in the United Kingdom (UK), which offered guidelines to large enterprises on how to conduct their affairs. Grebe mentions that at the core of the report was a Code of Best Practice (the "Code"), which provided specific procedures for companies to follow. Chapman (2011:34) notes that corporate governance was defined in the UK Cadbury Commission Report of 1992 as "the system by which businesses are directed and controlled". Chapman continues that the definition was expanded by the Organisation for Economic Co-operation and Development (OECD) in 2004 to read "corporate governance involves a set of relationships between a company's management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined".

In 1994, the King Report on Corporate Governance was published in South Africa. The report was developed by the King Committee on Corporate Governance, under the auspices of the Institute of Directors in South Africa (IoDSA), and headed by former judge, Mervyn King and Geoffrey Bowes. Since then, three refinements have been made to the initial report. King II was published in 2002, followed by King III in 2009. Whereas only one element of risk management, namely, internal control was addressed in King I, the King II report addressed risk management as a core element of corporate governance and highlighted the board's accountability and responsibility towards the overall risk management process. The implementation of the new Companies Act (Act No. 71 of 2008) and changes in international trends related to governance, necessitated the third King Report in 2009, which entailed a recommended code of corporate conduct for all entities (private, public and non-profit sectors).

The 21st century is characterised by financial instability, climate change, pressure on natural resources, radical transparency caused by the ubiquitous social media platforms, disruptions caused by technology, and greater expectations by

stakeholders. The aforementioned provided the context in which the King Committee set out to draft King IV and which influenced both its contents and approach (IoDSA, 2016:4). King IV was introduced in November 2016, with the common theme of value creation accomplished in a sustainable manner.

IoDSA (2016:4) notes that organisations are operating in the “triple context” of the economy, society and the environment. IoDSA (2016:24) maintains that the triple context is portrayed in a more granular fashion by the forms of capital used or affected by an organisation. IoDSA proposes the “six-capitals” model, comprising of financial, manufactured, intellectual, human, social and relationship, and natural capitals. These concepts are used as pathways to integrated thinking and sustainable development. In this context, governing bodies have the challenge of steering their organisations to create value sustainably, making the duty of care more complex and more necessary.

IoDSA (2016:4) further proposes that concepts, such as ethical leadership, the organisation in society, corporate citizenship, sustainable development, stakeholder inclusivity, integrated thinking and integrated reporting, should form the cornerstones of the refined King IV. IoDSA argues that these concepts are relevant to three major paradigm shifts in the corporate world, as presented below:

- **From financial capitalism to inclusive capitalism:** Financial performance alone can no longer serve as a proxy for holistic value creation. Jonathan Labrey, (as cited by IoDSA, 2016:4) maintains that long-term financial performance depends on the efficient and productive management of resources that are currently not measured by traditional accounting methodologies, such as human, intellectual, social and relationships and natural capitals. The financial capital market system is insufficient to guard against the multi-faceted and interconnected risks of the future, and hence, an inclusive market system should be developed, where the positive impact of organisations on society will positively affect the prospects of the organisation.
- **From short-term capital markets to long-term sustainable capital markets**: Sustainable capitalism refers to an economic system in which value is created in a sustainable manner and where the period indicated by “long-term” would depend on the strategic objectives of the organisation and the risks and

opportunities presented by its external environment. IoDSA argues that performance should be assessed in terms of all-inclusive value over a longer term and that the capital market system must award long-term decision-making.

- **From siloed reporting to integrated reporting:** IoDSA argues that resources and capitals used by organisations constantly interconnect and interrelate and that reporting should reflect this interconnectedness and indicate how its activities affect and are affected by the six capitals it uses and the triple context in which it operates. IoDSA believes that the concept of integrated reporting is consistent with the concept of an inclusive, sustainable capital market system.

Corporate governance, for the purposes of King IV, is defined by IoDSA (2016:20) as the "exercise of ethical and effective leadership by the governing body towards the achievement of an ethical culture, good performance, effective control and legitimacy".

IoDSA further maintains that ethical leadership is exemplified by integrity, competence, responsibility, accountability, fairness and transparency, and involves the anticipation and prevention of negative consequences related to organisational activities and outputs on the economy, society, the environment and the capitals it uses and effects. Effective leadership is results-driven and is about achieving strategic objectives and positive outcomes, and includes but goes beyond, an internal focus on effective and efficient execution. IoDSA concludes that ethical and effective leadership should complement and reinforce each other.

IoDSA (2016:35) explains that corporate governance could be applied on a statutory basis, as a voluntary code of principles and practices, or as a combination of the two. In South Africa, a hybrid system has developed over time, where some practices of good governance have been legislated in parallel with the voluntary codes of governance. King IV comprises of 17 basic principles. Principle 11 outlining the governance of risk is relevant to this study and will be focused on.

King IV recognises the rising complexity of risks and the need to strengthen oversight and recommends that the risk committee should be comprised of a majority of non-executive members as part of the governing body. This recommendation goes beyond what was required in King III (IoDSA, 2016:30). The governing body is defined by IoDSA (2016:12), as the "structure that has primary

accountability for the governance and performance of the organisation, and depending on the context includes among others, the board of directors of a company, the board of a retirement fund, the accounting authority of a state-owned entity and a municipal council". Members of the governing body are individuals duly appointed to serve on the governing body and/or its committees.

Principle 11 of King IV focuses on how the governing body should govern risk in a way that supports the organisation in setting and achieving its strategic objectives. The recommended practices are set out in Table 2.1.

Table 2.1: King IV Principle on Risk governance: Recommended Practices

1. The governing body should assume responsibility for the governance of risk by setting the direction for how risk should be approached and addressed in the organisation. Risk governance should encompass both:
    a. The opportunities and associated risks to be considered when developing strategy.
    b. The potential positive and negative effects of the same risks on the achievement of organisational objectives.
2. The governing body should treat risk as integral to the way it makes decisions and executes its duties.
3. The governing body should approve policy that articulates and gives effect to its set direction on risk.
4. The governing body should evaluate and agree on the nature and extent of the risks that the organisation should be willing to take in pursuit of its strategic objectives. It should approve in particular:
    a. The organisation's risk appetite, namely, its propensity to take appropriate levels of risk.
    b. The limit of the potential loss that the organisation has the capacity to tolerate.
5. The governing body should delegate to management the responsibility to implement and execute effective risk management.
6. The governing body should exercise ongoing oversight of risk management and, in particular, oversee that it results in the following:
    a. An assessment of risks and opportunities emanating from the triple context in

which the organisation operates and the capitals that the organisation uses and affects.

b. An assessment of the potential upside, or opportunity, presented by risks with potentially negative effects on achieving organisational objectives.

c. An assessment of the organisation's dependence on resources and relationships as presented by the various forms of capital.

d. The design and implementation of appropriate risk responses.

e. The establishment and implementation of business continuity arrangements that allow the organisation to operate under conditions of volatility, and to withstand and recover from acute shocks.

f. The integration and embedding of risk management in the business activities and culture of the organisation.

7. The governing body should consider the need to receive periodic independent assurance on the effectiveness of risk management.
8. The nature and extent of the risks and opportunities the organisation is willing to take should be disclosed without compromising sensitive information.
9. In addition, the following should be disclosed in relation to risk:
    a. An overview of the arrangements for governing and managing risk.
    b. Key areas of focus during the reporting period, including objectives, the key risks that the organisation faces, as well as undue, unexpected or unusual risks and risks taken outside the risk tolerance levels.
    c. Actions taken to monitor the effectiveness of risk management and how outcomes were addressed.
    d. Planned areas of future focus.

Source: IoDSA (2016:61)

Lam (2014:77) believes that the focus on corporate governance has resulted in changes to corporate risk management practices. He mentions that codes of best practice on corporate governance explicitly cite risk management as a key responsibility of the board or governing body, as mentioned in King IV. He maintains that an important link between corporate governance and ERM is that both focus on strategic direction, corporate integration and motivation from the top of the

organisation. Lam believes that good board practices and corporate governance are crucial for effective ERM.

Frigo and Anderson (2011:83), in agreement, add that directors and executives of organisations are experiencing an increased awareness and expectations from shareholders, regulators, rating agencies and other stakeholders with regard to the management of strategic risks. They maintain that although ERM and risk management can generally deal with a wide range of risks, the increased interest in and higher profile of risk management, coupled with catastrophic losses sustained by organisations over the past two decades, have given rise to the focus on “Strategic Risk Management”, which is discussed in the next section.

2.4 STRATEGIC RISK MANAGEMENT

Strategic risks differ from operational or business risks both in terms of type and nature. Brooks (2007) states that strategic risks are those risks that involve a threat to the business model, in contrast to other risks that present a threat inherent to the business model. Blau (2014) reiterates that strategic risks are those hard-to-spot and hard-to-manage risks that threaten to disrupt the assumptions at the core of the organisation’s strategy. He points out that although strategic risks may have a negative impact, they may also present the organisation’s next opportunity. With strategic risks, executives are forced to choose whether to resist the risk, avoid it, or embrace it, as an indicator of where the market is going or where the next opportunity may be derived from.

Frigo and Anderson (2011:83) describe strategic risks as “those risks that are most consequential to the organisation’s ability to execute its strategies and achieve its business objectives”. Chapman (2011:271) describes strategic risk as “the risk associated with initial strategy selection, execution or modification over time, resulting in a lack of achievement of overall objectives”. Examples of strategic risk include competitive dynamics, demographic changes, technological innovations, economic changes and trends, changes in consumer behaviour and political and regulatory direction (Brooks, 2007). Mike Rost (2020) adds senior management turnover, merger integration and stakeholder pressure to the list of strategic risks.

Frigo and Anderson (2011:86) point out that strategic risk management (SRM) is increasingly being viewed as a core competency at both management and board levels. They describe SRM as the “continual process of identifying, assessing and managing risks in the business strategy of the organisation with the ultimate goal of protecting and creating shareholder value”. Mike Rost (2020), in addition, describes SRM as the “process of identifying, quantifying and mitigating any risk that affects or is inherent in a company’s business strategy, strategic objectives and strategy execution”.

Frigo and Anderson are of the opinion that SRM is a primary component of ERM and that it should be affected by boards and management and be guided by the risk tolerance and risk appetite of the organisation. Other authors agree that SRM is a component of ERM and should not be seen as a separate process from ERM. Brooks (2007) notes that although SRM processes are distinct from business risk management processes, SRM is a vital part of a comprehensive ERM framework. Mike Rost (2020) considers SRM as the next frontier for ERM. He believes that organisations that manage to identify, track and deal with strategic risks will be able to turn strategic risks into an important leadership and organisational resource. Solvexia (2020) considers SRM to be a focal point under ERM, focusing on the types of risks that affect stakeholder value.

Hopkin (2018:124) points out that COSO has recognised that there is a need for stronger links between strategy, risk and performance. In response, COSO published an updated ERM Framework in 2017, in which there is a strong connection between ERM and stakeholder expectations, risk is positioned in the context of organisational performance, and organisations are placed in a better position to anticipate risk. In the revised document, COSO argues the benefits of integrated ERM practices throughout organisations to accelerated growth and enhanced performance. Hopkin views the intentions of the revised COSO framework as the elevating of discussions on strategy, aligning ERM and performance, and explicitly linking ERM to decision-making. Hopkin also believes the proper integration of ERM could enhance the resilience of the organisation by anticipating and responding to change.

Anderson and Sax (2020:46), in addition, state that proponents of ERM have been advocating for the integration of ERM with strategic planning, arguing that blind spots

in the execution of strategy might be overlooked if risk management is not linked to strategic planning. They also point out that the value potential of ERM can only be realised if it is integrated into the strategic decision-making of the organisation.

Frigo and Anderson (2011:22) propose that strategic risk management is based on six principles as reflected in Table 2.2.

Table 2.2: Principles of Strategic Risk Management

1. SRM is a process for identifying, assessing and managing both internal and external events and risks that could impede the achievement of strategy and strategic objectives.
2. The ultimate goal of SRM is creating and protecting shareholder and stakeholder value.
3. SRM is a primary component and necessary foundation of the organisation's overall ERM.
4. As a component of ERM, it is by definition affected by boards of directors, management and others.
5. SRM requires a strategic view of risk, and the consideration of it will affect the ability of the organisation to achieve its objectives.
6. SRM is a continual process that should be embedded in strategy setting, strategy execution and strategy management.

Source: Frigo & Anderson (2011:22)

Brooks (2007), in addition, believes that the identification of strategic risks differs from the identification of business risks and that it therefore warrants separate and different processes. He points out that strategic risk assessment is more "top-down" than business risk assessment, considering its orientation towards the overall business model, rather than separate functions in the current business model. Brooks proposes that a strategic management process should include essential elements such as a target risk profile, strategic risk identification and assessment processes, as well as processes for the monitoring and reporting of strategic risk.

Brooks concludes that the role of ERM in the strategic management process is to ensure that the process has:

- a comprehensive view of risks and frameworks for their management, including common terminology, measurements, a target risk profile and the desired risk culture;
- processes and tools for the various stages of risk management, namely, identification, assessment, treatment, measurement and monitoring;
- full and unfettered discussion and evaluation of risk; and
- a disciplined process to ensure that all risks are addressed.

Hardy (2015:125) emphasises that to strengthen risk management processes, a risk framework or standard will be needed to help navigate the complexities of risk integration in the organisation. Hopkin (2018:30) agrees that successful organisations require the carefully planned implementation of the risk management process, as well as the design and embedding of a suitable and sufficient risk management framework.

The next section investigates risk management standards and frameworks, followed by a discussion of the ISO31000 risk management standard.

2.5 RISK MANAGEMENT STANDARDS AND FRAMEWORKS

Hopkin (2018:92) believes that it is necessary to distinguish between a risk management standard and a risk management framework. He maintains that a risk management standard sets out the overall approach to the successful management of risk, including a description of the risk management process and a suggested framework to support the process. Hopkins (2010:57) continues that in terms of risk management standards, risk management activities should align with the context of the business environment, the organisation and the risks faced by the organisation. Hopkin (2018:57) further proposes that the acronym Risk Architecture, Structure and Protocols (RASP) be used to define the framework in which risk management takes place. The risk management framework, in support of the risk management process, needs to facilitate the communication and flow of risk information. The risk framework is seen as a supporting structure that is built around and that supports the risk management process. The different components of the risk management framework are illustrated in Figure 2.1.

ISO 31000 (2009:vi) in support states that the concepts “risk management” and “managing risk” are both used in the ISO standards. ISO maintains that “risk management” refers to the architecture (principles, framework and process) for managing risk effectively, while “managing risk” refers to applying that architecture to particular risks.

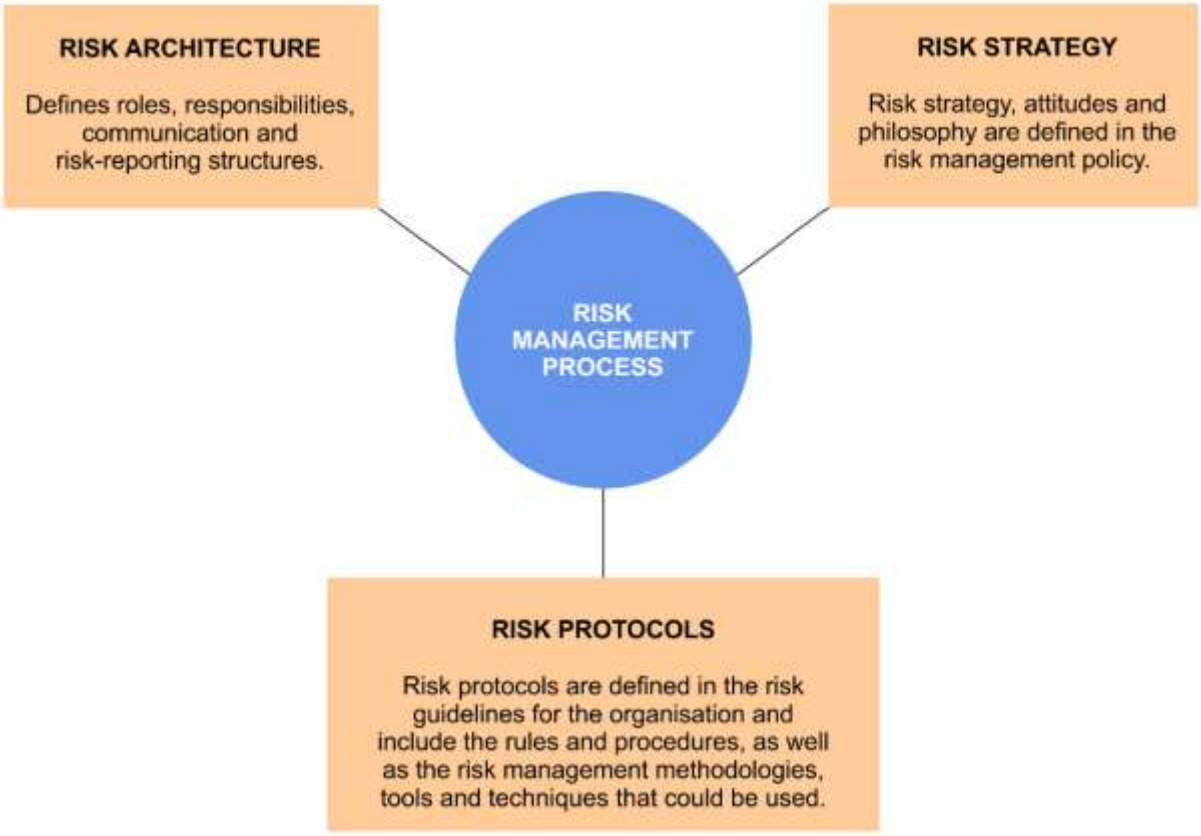

Figure 2.1: Components of the Risk Management context

Source: Hopkin (2018:96)

Hopkin (2018:92) maintains that there are several established risk management standards and frameworks. He mentions that the standard with the widest acceptance used to be the Australian Standard AS 4360 (2004). This standard was, however, replaced in 2009 by ISO 31000. According to Hopkin (2018:92), the COSO standard is also widely applied in many organisations. Hopkin also highlights the IRM Risk Management Standards that were produced in 2002, in association with AIRMIC and ALARM, as one of the most established and widely used standards. The IRM standard is a high-level approach aimed at non-risk management specialists. The Australian standards and COSO ERM cube, on the other hand, were

designed for use by specialist risk management practitioners. Both the ISO and COSA standards were updated in 2017/18.

Hopkin continues that the overall approach of each of the developed standards is similar. Hardy (2015:127) agrees and elaborates that all standards and frameworks are similar in the following ways:

- Adopting an enterprise-wide approach, with executive-level sponsorship and defined accountabilities;
- Implementing structured process steps, oversight and reporting of identified risks;
- Understanding and allocating accountability for defining risk appetite and acceptable tolerance boundaries;
- Documenting of risks in risk assessment activities;
- Establishing and communicating risk management process goals and activities; and
- Monitoring treatment plans.

In South Africa, IRMSA developed its own Guideline to Risk Management, drawing on ISO31000 (2009) and the King IV report on corporate governance, and aligning it to South African legislation. The remainder of the discussion will, therefore, concentrate on the ISO31000 standard and the IRMSA guidelines to risk management.

2.5.1 ISO31000

The Technical Management Board Working Group on risk management of the International Organization for Standardization (ISO) prepared the ISO31000 standard on risk management principles and guidelines which was published in 2009 and updated in 2018. The ISO workgroup proposes that organisations manage risk by identifying it, analysing it, and then evaluating whether the risk should be modified by risk treatment to satisfy their risk criteria (ISO31000:2009:V). During this process, stakeholders should be consulted and communicated with and risk controls monitored and reviewed to ensure that no further treatment is required. The ISO workgroup further maintains that risk management can be applied to an entire organisation, its many areas and levels, at any time, as well as to specific functions, projects and activities. They believe that the adoption of consistent processes that

form part of a comprehensive framework can help to ensure that risk is managed effectively, efficiently and coherently across an organisation.

The ISO workgroup maintains that the ISO31000:2009 standard describes the systematic and logical process of managing risk in detail, and includes established principles that need to be satisfied to make risk management effective. The generic International Standards set out in ISO31000 aim to provide the principles and guidelines for managing any form of risk in a systematic, transparent and credible manner and in any scope and context and is not specific to any industry or sector.

IRMSA bases the main subsections of the IRMSA Guideline to Risk Management on the ISO31000:2009 layout, as illustrated in Figure 2.2, namely, risk management principles, risk management framework and risk management process. This layout has been revised in the ISO31000:2018 document as reflected in Figure 2.3.

The IRMSA guidelines endeavour to incorporate the unique risk environment of South African organisations in their guidelines by aligning it with the King Report on governance, national standards and industry-specific standards and legislation.

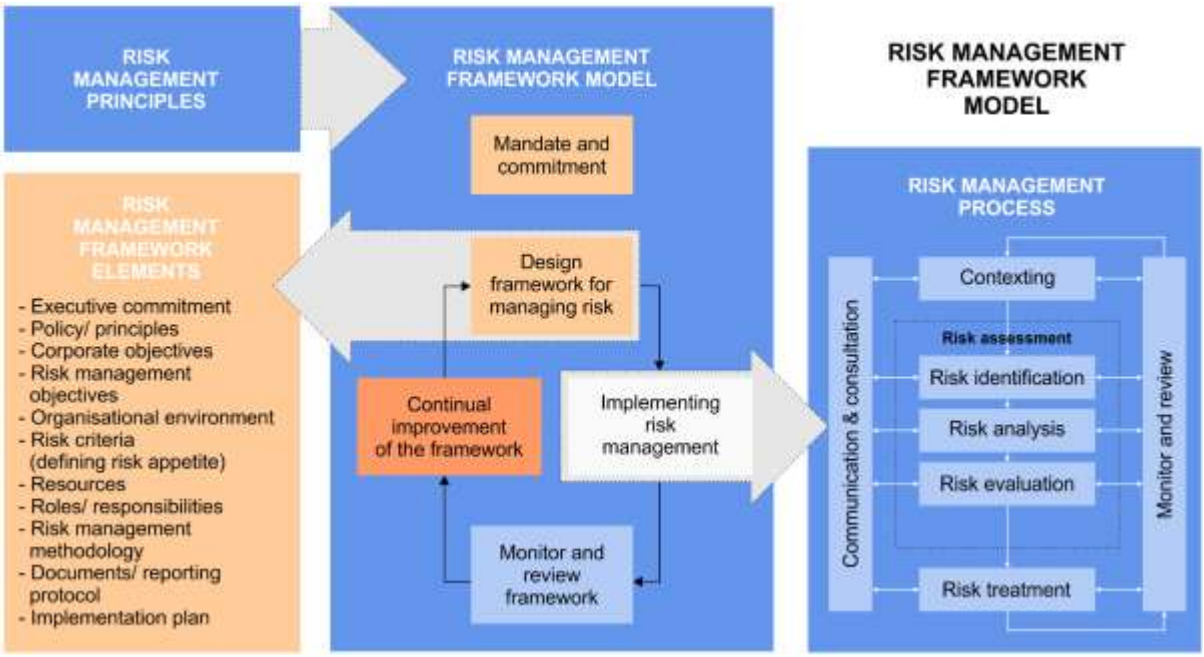

Figure 2.2: Relationships between risk management principles, framework and process

Source: ISO 31000:2009(E)

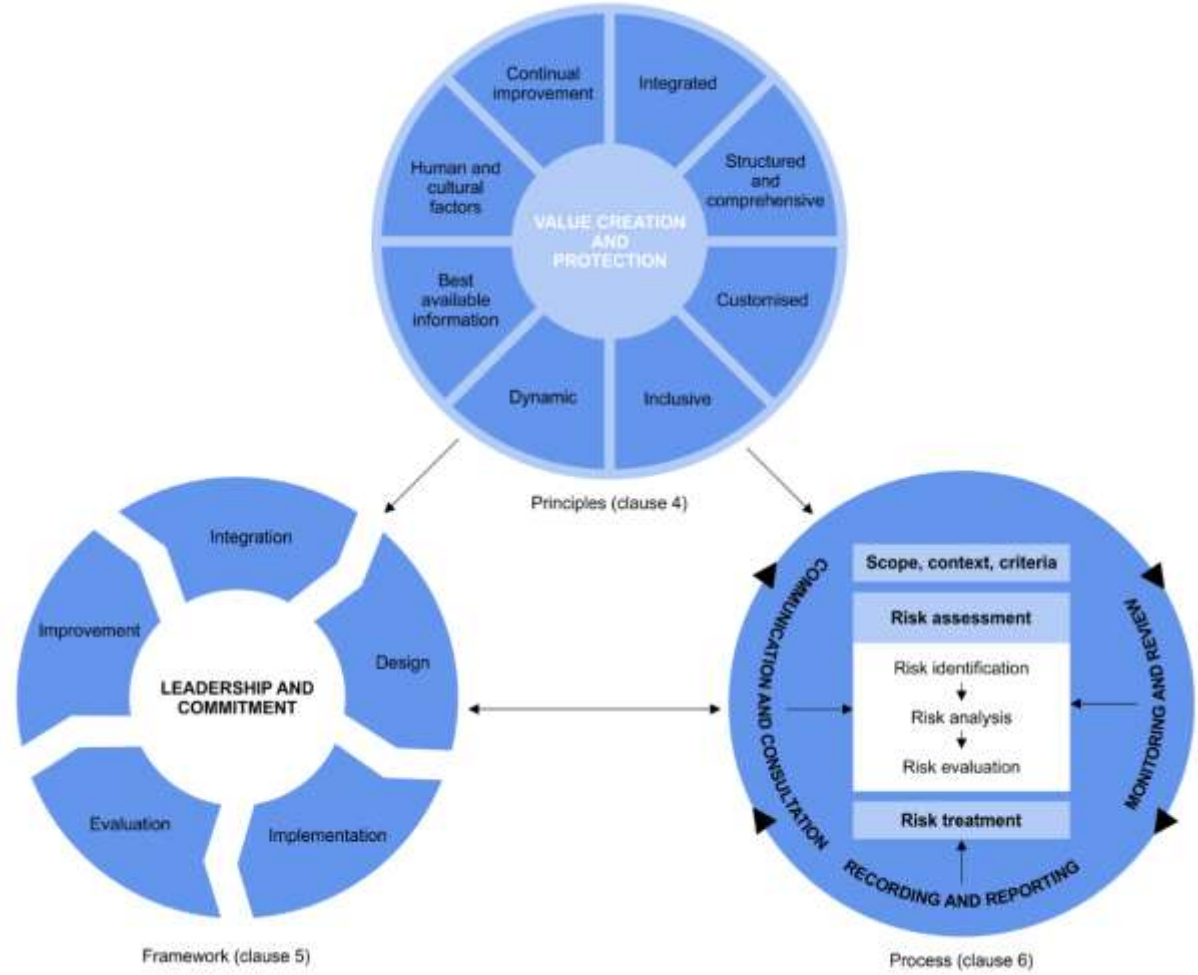

Figure 2.3: Principles, framework and process

Source: ISO 31000:2018(v)

The IRMSA 2014 guidelines are under revision and have not yet been published. In the next sections, reference will therefore be made to both the 2009 and 2018 ISO31000 standards. The next section will concentrate on the risk principles, framework and process, with particular reference to the South African context.

2.5.2 Risk management principles

IRMSA (2014:12) maintains that the effective implementation of risk management frameworks, plans and processes require those responsible for risk management to exhibit good sense and sound judgment when approaching the overall challenge of managing the risk of the organisation. In this sense, they need a set of guiding principles.

IRMSA proposes two sets of principles, the first being the risk governance principles as contained in the King report on governance (the current guideline document is still

based on King III) and the other a set of general principles for risk management based on ISO31000 (the current document is still based on ISO31000:2009 and reflected in Table 2.3). The risk management principles contained in King IV were discussed earlier. IRMSA (2014:16) emphasises that the King risk governance principles and risk management principles are complementary in the sense that risk management principles describe what good risk management looks like, while the King principles help ensure that the organisation applies such good practices. The IRM (2018:8) points out that part of the revision to the ISO31000:2018 document included changes to the principles of risk management as reflected in the 2009 document. The revised principles are listed in Table 2.3 and reflected in Figure 2.4.

Table 2.3: Principles of Risk Management

IRMSA Principles of Risk Management	ISO31000 2018 Principles of Risk Management
1. Risk management creates and protects value. 2. Risk management should be an integral part of all organisational processes. 3. Everyone in the organisation is responsible for risk management. 4. Risk management is part of decision-making. 5. Risk management considers human, cultural and social factors. 6. Risk management is based on the best available information. 7. Risk management is inclusive of all stakeholders. 8. Risk management explicitly addresses uncertainty. 9. Risk management is systematic, structured and timely. 10. Risk management is tailored to the organisation. 11. Risk management is dynamic, iterative and responsive to change. 12. Risk management facilitates continual improvement of the organisation.	1. Risk management is an integral part of all organisational activities. 2. A structured and comprehensive approach is required. 3. The framework and processes should be customised and proportionate. 4. Appropriate and timely involvement of stakeholders is necessary. 5. Risk management anticipates, detects, acknowledges and responds to changes. 6. Risk management explicitly considers any limitations of available information. 7. Human and cultural factors influence all aspects of risk management 8. Risk management is continually improved through learning and experience.

Source: IRMSA Guideline to Risk Management IRMSA (2014:14-15); Hopkin (2018:100)

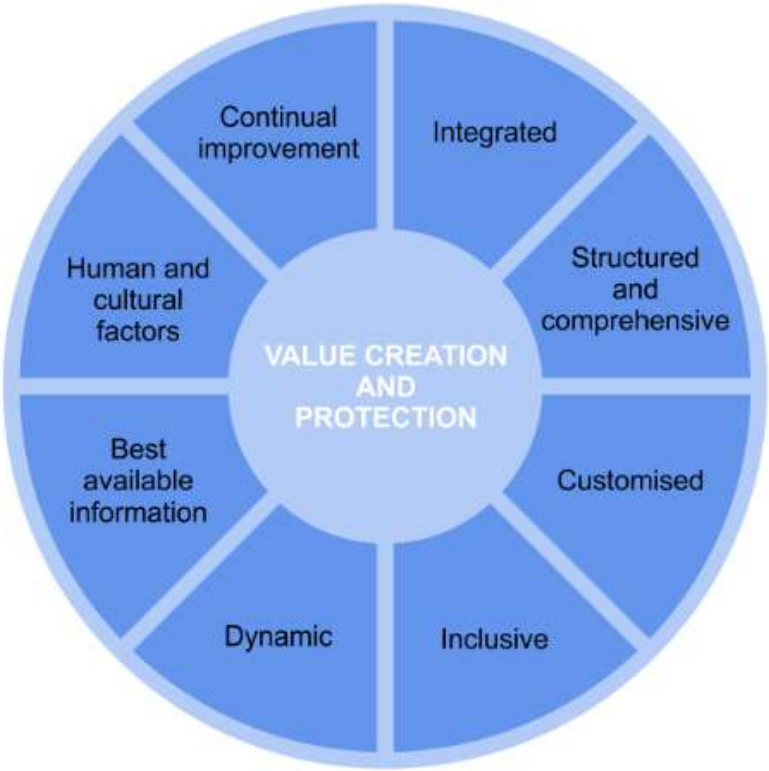

Figure 2.4: Principles of risk management

Source: ISO31000 (2018:3)

IRM (2018) believes that the principles were reviewed, as they are considered to be key criteria for successful risk management. As illustrated in Figure 2.4 above, ISO31000:2008 provides eight risk management principles. The IRM (2018:10) states that the first five principles provide guidance on how a risk management initiative should be designed and can be summarised as proportionate, aligned, comprehensive, embedded and dynamic. The last three principles relate to the operation of the risk management initiative, confirming that the best information should be used, human and cultural factors should be considered, and risk management arrangements should continually be improved through learning and experience.

Hopkin (2018:26) emphasises that the risk management process cannot take place in isolation and needs to be supported by a framework in the organisation. He notes that the risk management framework is presented and described in different ways in the various standards, guidelines and other publications.

The next section discusses the risk management framework as proposed by the ISO31000 standards.

2.5.3 Risk management framework

ISO (2018:4) maintains that the purpose of the risk management framework is to assist the organisation in integrating risk management into all the organisation's functions and activities. The IRM (2018:18) emphasises that the effectiveness of risk management will depend on its integration into the governance and all other activities, including decision-making, of the organisation. IRMSA (2014:17) maintains that the risk management framework adopts a structure or plan (establish the framework), does (implement and operate it), checks (monitor and review its effectiveness) and adjusts (maintain and continuously improve).

The IRM (2018:11) states that the principles of risk management and the framework are closely related, in the sense that the principles outline what must be achieved, while the framework provides information on how to achieve it. The ISO31000:2009 Risk Framework is depicted in Figure 2.5, while the ISO31000:2018 Risk Framework is depicted in Figure 2.6.

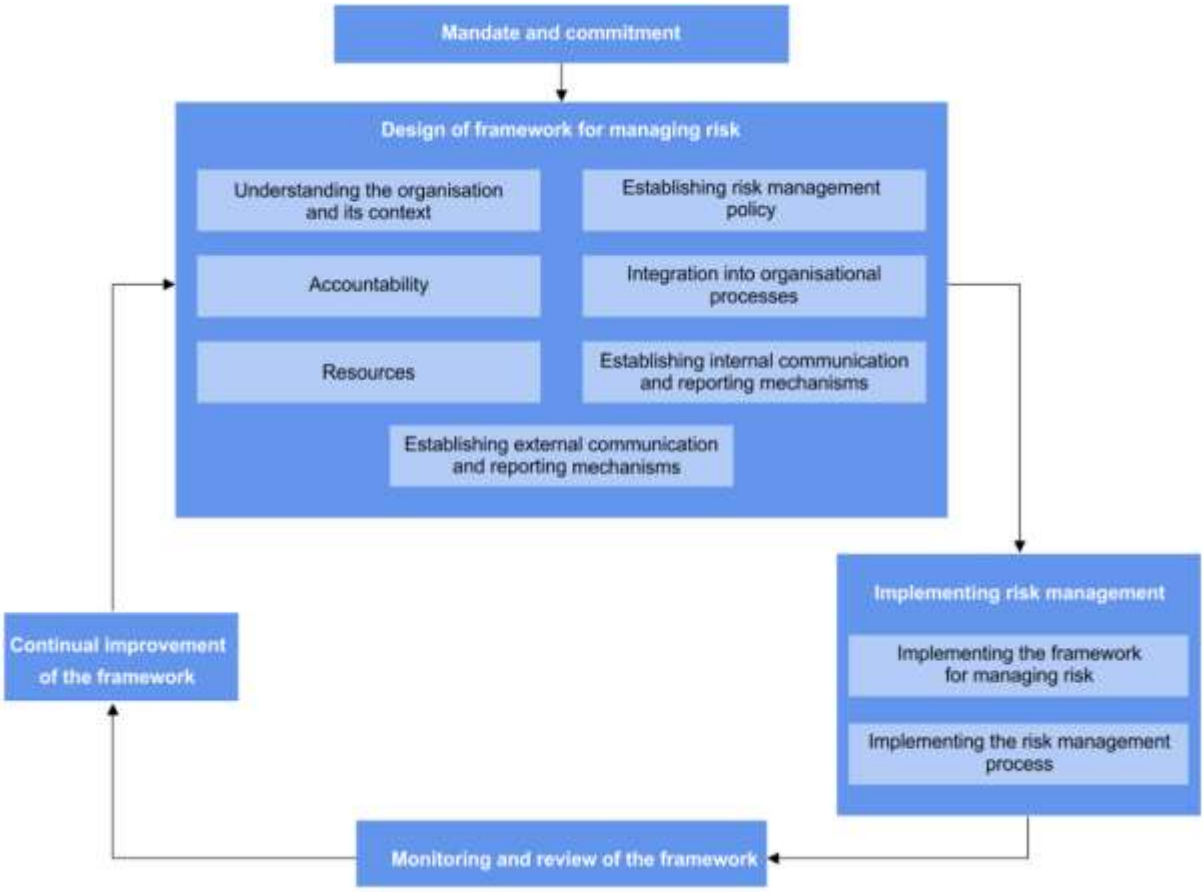

Figure 2.5: Components of the risk management framework ISO31000:2009

Source: ISO31000:2009(E)

Figure 2.6: Components of the risk management framework ISO31000:2018

Source: ISO31000:2018(4)

ISO31000 (2018:4) proposes that the components of the framework and how it operates as a whole should be customised to meet the needs of the organisation. The current IRMSA Guidelines used in South Africa are still based on the ISO31000:2009 Framework. For purposes of this study, the discussion in the following sections will be based on the ISO31000 2009 components.

2.5.3.1 Mandate and commitment

ISO31000 (2009:9) emphasises that strong and sustained commitment by management, as well as strategic and rigorous planning, are essential for the effective implementation and sustainability of risk management in an organisation. IRMSA (2014:22) states that the board (in terms of King IV, the Governing Body) is responsible for the governance of risk throughout the organisation and for delegating authority, but emphasises that the management of risk is the responsibility of every individual in the organisation. For their part, ISO maintains that the authority and mandate related to risk management will depend on the level of responsibility, whether executive level, functional level or workforce level. Furthermore, ISO points

out that risk practitioners and risk specialists may have specific responsibilities and may be involved at different levels of the organisational hierarchy.

IRMSA (2014:23) believes that it is important to establish an effective risk culture that describes the overall behaviour of every member in terms of how they view, handle, manage and communicate about the risk to ensure that risk management creates genuine value for the organisation. Furthermore, IRMSA maintains that different parts of the organisation are mandated to fulfil different roles and ensure that different aspects of good risk management are applied. The institute believes that the mandate starts with the executive leadership team that are responsible for allocating all other responsibilities and that are tasked with ensuring the effective governance of risk throughout the organisation. They are also responsible for developing the risk management framework, systems and structures in the organisation, developing the risk management policy, determining roles and responsibilities for managing risk, defining the role of the internal audit, and developing a combined assurance model. IRMSA (2014:23) continues that each individual should understand and commit to meeting the specific responsibilities associated with their position in the organisation.

ISO31000 (2009:9), in addition, sets out the mandate of management as follows:

- Define and endorse the risk management policy.
- Ensure that the organisation's culture and risk management policy are aligned.
- Determine risk management performance indicators that align with the performance indicators of the organisation.
- Align risk management objectives with the objectives and strategies of the organisation.
- Ensure legal and regulatory compliance.
- Assign accountabilities and responsibilities at appropriate levels in the organisation.
- Ensure that the necessary resources are allocated to risk management.
- Communicate the benefits of risk management to all stakeholders.
- Ensure that the framework for managing risk continues to remain appropriate.

2.5.3.2 Design of the framework for managing risk

IRMSA (2014:27) propose that successful risk management requires that the foundation, components and arrangements in which risk management is undertaken are institutionalised in the organisation and adhered to by the entire workforce. IRMSA maintains that a risk framework should describe why the organisation manages risk, who manages risk, how risks are managed, how risk information is communicated, and how assurance is provided.

ISO31000 (2009:10) proposes that the following aspects should receive consideration in designing and implementing the risk management framework:

- Evaluate and understand the external and internal context of the organisation.
- Establish and communicate the risk management policy, stating the organisation's objectives and commitment to risk management, more specifically, addressing the rationale for managing risk, the link between the organisation's objectives and policies and the risk management policy, accountabilities and responsibilities for managing risk, how conflicting interests are dealt with, the commitment of resources to the management of risk, how risk management performance will be measured and reported, and the commitment to review and improve the risk management policy and framework in response to an event or changing circumstances.
- Ensure that there are accountability, authority and appropriate competence for managing risk, maintaining the risk management process and ensuring the adequacy, effectiveness and efficiency of controls.
- Embed risk management in all the practices and processes of the organisation, in particular, the policy development, strategic planning and review and change management processes, in a way that is relevant, effective and efficient.
- Allocate appropriate resources for the management of risk. These include skilled, experienced and competent people, information and knowledge management systems, training programmes and processes, methods and tools to be used for risk management, to name a few.

- Establish internal communication and reporting mechanisms, including processes to consolidate risk information from different sources with due cognisance of the sensitivity of the information.
- Develop and implement external communication and reporting mechanisms to build confidence in the organisation, communicate with stakeholders in a crisis or contingency event, exchange information with external stakeholders, comply with legal, regulatory and governance requirements in terms of external reporting and providing feedback.

IRMSA (2014:27) adds the following aspects that should be considered during the design phase of the risk framework:

- The establishment of a set of guidelines or standards on how to manage risk across all relevant areas of the business, including the formulation of:
  - A common risk language across the organisation, preferably in line with national (local) and internationally accepted terms. The ISO/IEC Guide 73 (2009), containing internationally accepted risk definitions and terms, was developed to guide organisations in this regard.
  - Risk thresholds such as risk appetite, risk tolerance and risk-bearing capacity.
  - The risk management process of identifying, assessing and treating risks.
  - Risk criteria to evaluate the significance, value and impact of different risks.
  - Performance criteria, describing how and when the risk framework will be reviewed, and defining a performance metric for the risk framework.
- The integration of supporting systems such as financial control, information governance, health and safety, information technology, quality, legal systems and asset and property maintenance, among others, that are needed for the risk management process to function effectively.
- Business continuity planning, allowing proactive action for those risks that result in the disruption of key business activities.

2.5.3.3 Implementing the framework

IRMSA (2014:30) proposes that the implementation of the risk management framework should be done following established project management and change management processes as set out in ISO21500. ISO21500 is an international

standard on project management that was initially developed and released by ISO in 2012, and updated in 2020. It is intended to provide generic guidelines, explain core principles and concepts, and good practice in project management.

IRMSA points out that the proper implementation of the risk framework will:

- Ensure that the risk management framework is capable of achieving its objectives;
- Identify any risk inherent in the risk management framework itself;
- Identify any risks that may arise in the rest of the organisation as a result of the implementation of the risk management framework; and
- Facilitate continuous learning about and improvement of the risk management system.

2.5.3.4 Monitor and review

ISO (2009:13) maintains that to ensure the effectiveness of risk management and to support the performance of the organisation, risk management performance needs to be measured against specific indicators, progress needs to be measured against the risk management plan, the appropriateness of the framework needs to be reviewed in terms of the context of the organisation, progress must be reported in terms of the risk management plan, and the overall effectiveness of the risk management framework must be reviewed.

2.5.3.5 Continual improvement

IRMSA (2014:32) maintains that organisations should continually improve the suitability, adequacy and effectiveness of the risk management system. The organisation should make changes if any non-conformity is observed between the actual and expected performance of the risk management framework.

ISO (2018:9) proposes that the risk management process should be an integral part of management and decision-making and should be integrated into the structure, operations and processes of the organisation. Fox (2018) believes that this changes the perspective of risk management from a stand-alone activity to something that is an integral part of organisational and individual decision-making. She believes that the 2018 version of the ISO standard delves into leadership's commitment to

integrating risk management into the organisational activities and understanding the contexts of the organisation when designing an integrated framework.

ISO (2018:9) further proposes that risk management should be applied at strategic, operational or project levels. Fox (2018) points out that the risk management process presented in the 2018 version of the ISO standards is sequential and is meant to be iterative in practice. The reporting and recording stage or component is also added as part of the risk management process. The various components of the risk management process will be discussed in the next section.

2.5.4 The risk management process

Moeller (2011:32) describes risk management as a four-step process involving risk identification, risk assessment, risk prioritisation and response planning, and risk monitoring. He emphasises that risk management should be enterprise-wide, involving people at all levels and in all enterprise units, since each person in the organisation sees and looks at risks from a different perspective.

Chapman (2011:137) maintains that risk management comprises the following seven stages, namely, 1) context, 2) identification, 3) analysis, 4) evaluation, 5) treatment, 6) monitoring/ review, and 7) communication/consultation. Chapman (2011:137) believes that collectively these stages form a logical sequence of activities that are necessary for the successful implementation of ERM. Chapman confirms that most guides on risk management contain the above stages, although their labelling may differ.

For purposes of this study, the ISO31000:2018 Risk Management Process will be used as a framework for the discussion in this section. This model used by IRMSA in their Risk Management Guide (2014:9) is based on the ISO 31000:2009 Standards, as reflected in Figure 2.7 below. The ISO31000:2018 risk management process is reflected in Figure 2.8.

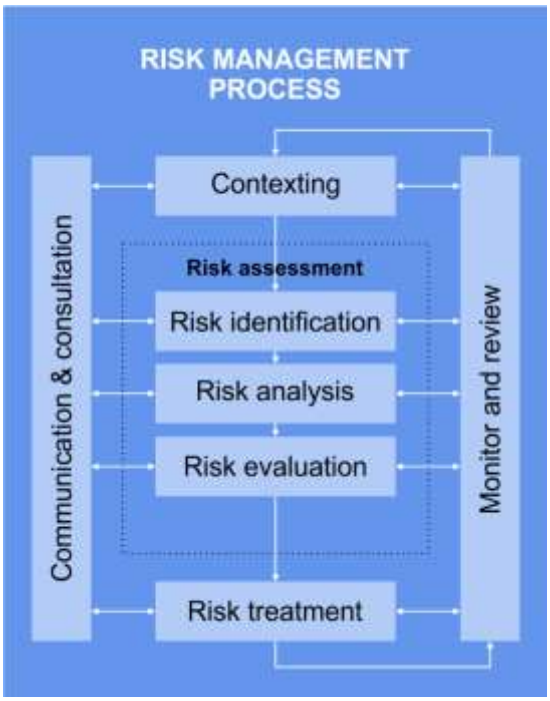

Figure 2.7: ISO Risk Management Process 2009

Source: ISO 31000:2009 (E):14

Figure 2.8: ISO Risk Management Process 2018

Source: ISO 31000 (2018:9)

The IRM (2018:12) maintains that the risk management process depicted by ISO31000 sees risk assessment and risk treatment as being at the centre of the risk

management process. In the 2018 document, ISO, in addition, broadens the "Establishing the context" or contexting stage of the 2009 version of the risk management process to include the establishment of the scope, context and criteria. The 2018 version of the ISO standards also adds a recording and reporting stage to the risk management process. In the 2018 standards, the risk management process is no longer depicted as a series of linked activities with connecting arrows but rather as a set of iterative steps that are undertaken in a coordinated manner, but not necessarily in a particular sequence.

The basic stages or steps in the risk management process as depicted by both the ISO31000 2009 and 2018 standards are very similar. Although the IRMSA guidelines are still based on the 2009 version of the ISO standards, the discussion of the various stages in the risk management process will be based on the 2018 guidelines to include the changes made by ISO. Each of the stages in the risk management process will be discussed in the next sections.

2.5.4.1 Communication and consultation

IRMSA (2014:34) emphasises the importance of access to the right information at the right time in the management of risks. According to ISO (2018:9), the purpose of communication and consultation is to assist relevant stakeholders in understanding risk, the basis on which decisions are made, and the reasons why particular actions are required. ISO maintains that communication aims to promote the awareness and understanding of risk, whereas consultation involves feedback and information to support decision-making. ISO (2018:9) believes that the close coordination between communication and consultation should result in the "factual, timely, relevant, accurate and understandable exchange of information" with due consideration for confidentiality and integrity of information, as well as the protection of the privacy rights of individuals.

ISO (2009:14) promulgates that plans for communication and consultation should be developed at an early stage in the risk management process. The communication process should be structured in such a manner as to identify who, both internally and externally to the organisation, should receive information, specifying the type of information to be received. It should further be structured to indicate how the

information required will be generated, and the time and manner in which the information will be communicated.

Continuous consultation and communication with stakeholders are of utmost importance, as stakeholders base their decision-making on their perceived perceptions of what the risk involved may be. IRMSA (2014:34) maintains that an effective internal and external risk communication and consultation strategy will ensure that all role players who are responsible for the risk management process, as well as all other stakeholders, will understand the reasons for and actions required by risk-related decisions.

2.5.4.2 Establishing the scope, context and criteria

According to ISO (2018:10), the scope, context and criteria need to be established to customise the risk management process for the organisation to enable effective risk assessments and appropriate risk treatment. ISO points out that the risk management process may be applied at different levels in the organisation, and that it is important to be certain about the scope under consideration, the relevant objectives to be considered, and their alignment with organisational objectives.

When making decisions on risk management, it is also important to consider the external and internal context of the organisation. Fraser and Simkins (2010:105) describe context as anything that could impact the objectives, risk criteria and risk management activities. ISO (2018:10) describes the external and internal context as the environment in which the organisation seeks to define and achieve its objectives. Fraser and Simkins (2010:106) believe that risk management should commence with an analysis of both the internal and external context, as well as the risk management context in which the specific business operates. They describe the risk management context as any activity in the risk management process that might attribute to the appropriate level of risk and associated risk treatments, monitoring and review.

The IRM (2018:12) considers the risk management context as part of the internal context of an organisation. The IRM believes that the nature and extent of risk management activities in organisations are influenced by their risk attitude and risk appetite. Risk attitude and risk appetite, as supported by the risk criteria for different types of risks, define the risk management context of an organisation. In addition, ISO (2018:10) maintains that an understanding of the context is important, as risk

management takes place in the context of the objectives and activities of the organisation. Organisational factors can in turn, also be a source of risk, and the purpose and scope of risk management may be interrelated with the objectives of the organisation as a whole.

The context will be indicative of the nature of the risks facing the business and the sources and management structures needed to manage risk in the organisation. Fraser and Simkins (2010:113) propose that a risk management policy should be formulated, based on the contextual framework of the organisation. Both Fraser and Simkins (2010:113) and Dorfman (2008:45) promulgate the importance of a written document setting out the context in which the business operates and the risk management framework, specifying objectives, approaches, processes, terminology, procedures, responsibilities, accountabilities and the monitoring procedures and reporting structures.

During the policy formulation stage, it is important to define the risk criteria. Hopkin (2018:1000) describes risk criteria as the amount and type of risk that an organisation may or may not take, relative to the objectives of the organisation. Criteria should be defined to evaluate the significance of risk and to support the decision-making processes. ISO (2018:10) maintains that risk criteria should align with the risk management framework and be customised to align with the purpose and scope of the specific activity under consideration. ISO further maintains that criteria should be consistent with the organisation's values, objectives, resources, policies and statements about risk management. The criteria should be established prior to the risk assessment process but should be continually reviewed and amended, where necessary.

2.5.4.3 Risk assessment

Hopkin (2018:142) views risk assessment as the recognition and rating of risks to determine the most significant risks facing the organisation, project or strategy. IRMSA (2014:36) sees risk assessment as a structured process that firstly identifies how the objectives of an organisation could be affected by risks (and opportunities), followed by an analysis of the types of risk and their consequences and probability of occurrence, and finally, a description of the priority that should be assigned to each risk. Hopkin (2018:142) believes risk assessment is the main risk management input

into strategy formulation but cautions that risk assessment is only useful if the conclusions of the assessment are used to inform decisions, and/or to identify appropriate risk responses for the type of risk under consideration.

Fox (2018) points out that the 2018 ISO standard, for the first time, recognises that cognitive biases and the assumptions of those involved in the risk assessment process should be considered. She points out that unrecognised biases, such as confirmation bias (the tendency to search for or interpret information in a way that confirms one's perceptions) and anchoring (the tendency to make decisions based on the first piece of information one finds) can influence judgements and lead to faulty assessments and poor decision-making. Fox proposes that personal and organisational perspectives should be taken into account as part of an organisation's risk criteria, as well as during the risk analysis process.

Hopkin (2018:146) notes that there is a wide range of risk assessment techniques available and makes special reference to the international standard ISO/IEC 31010 "Risk Management: Risk Assessment Techniques" that was published in 2009 and which provides detailed information on a full range of risk assessment techniques commonly in use. The Standard was updated in 2019 and includes significant technical changes with respect to the previous edition in the sense that more detail is given on the process of planning, implementing, verifying and validating of the techniques used. The number and range of techniques covered in the Standard have also increased.

The International Standard on Risk Assessment Techniques, IEC/FDIS31010:2009, compiled by the International Electrotechnical Commission (IEC), emphasises that risk assessment must be performed in alignment with the organisation's framework and process of risk management, and that risk assessment should be fully integrated into the other components of the risk management process. In this regard, successful risk assessment is dependent on effective communication and consultation with all stakeholders and the risk assessment objectives, risk criteria and risk assessment programme are determined and agreed upon, with due consideration of the external, internal and risk management context of the organisation.

Fox (2018), in agreement, considers the greater distinction made between the complementary concepts of communication (imparting information) and consultation (stakeholder participation) in the risk framework and process, proposed by the ISO 2018 standard, as a great improvement.

Hopkin (2018:166) points out that many risk practitioners assess risk at its current or residual level. According to him, internal auditors prefer to assess risk at its inherent level. He states that three levels of risk are important to organisations. The inherent or gross level is the level of risk that would be present if there were no controls in place. The current or residual level is the level of risk at the time of risk assessment with risk control measures in place. Hopkin believes that the level of risk that is of importance to risk managers is the target risk. That is the level of risk that falls in the tolerant or comfort zone of the organisation. To get to the target level, additional risk control measures need to be applied to residual risks.

ISO31000 (2018(E):11) emphasises that risk assessment should be conducted systematically, iteratively and collaboratively, drawing on the knowledge and views of stakeholders. ISO sees risk assessment as the overall process of identification, risk analysis and risk evaluation. Each of these concepts will be briefly explained in the next sections.

Risk identification

IRMSA (2014:57) defines risk identification as the process of finding, recognising and describing risks. It involves the identification of all risk sources, areas of impacts, events, their causes and potential consequences. ISO (2018:11) considers the purpose of risk identification as the finding, recognising, and describing of risks that might help or prevent the achievement of the organisation's objectives. ISO (2009:17) proposes the generation of a comprehensive list of risks based on those events that may create, enhance, prevent, degrade, accelerate or delay the achievement of objectives, as well as those risks associated with not pursuing an opportunity.

Williams (1995:41) adds that risk identification aims to provide an understanding of the various sources of risk, hazards, risk factors and perils a business is exposed to. To manage risk effectively, it is important to identify all the risk exposures for a particular business. Risk identification is not a once-off exercise but a continuous

process, where identified risks should be monitored regularly, and emerging risks recorded and managed.

Chapman (2011:171) believes that the risk identification process can only commence once the business objectives or business objectives subset under investigation has been clarified and recorded, and the context of the business has been analysed and reviewed. Risks and opportunities are identified as comprehensively as possible, using the information gained from the business analysis to act as prompts. Chapman states that consensus must be reached on the risk and opportunities that are identified, their description, their interdependencies and how they would impact on the business. The different risks and opportunities must then be documented in the risk register.

IRMSA (2014:36), in addition, emphasises that risks can only be efficiently responded to if they are appropriately, accurately and timeously identified. Each organisation is faced with unique risks due to the scope and nature of its operations and the environment in which the business operates. Vaughan (1997:37) points out that certain risk identification methods might therefore prove to be more efficient in some businesses or industries than in others. It might also be necessary to apply a combination of a few risk identification techniques to ensure a comprehensive view of all risk exposures in a specific organisation. He believes that risk managers should, furthermore, rely on their instinct and experience and those of others involved in the operations of the business, to identify unique and emerging risks.

IRMSA (2014:36) agrees that organisations should apply risk identification tools and techniques suited to their objectives and capabilities and the type of risks faced. IRMSA further notes that risk identification should be based on the most reliable and robust data available, and be undertaken by people with the appropriate knowledge and skills to identify risks.

To identify the exposures lurking in this magnitude of sources it is important to develop an information system designed to provide a continual flow of information about changes in operations, acquisition of new assets, loss and near-loss incidents, and the changing relationships with entities external to the business. Vaughn (1997:125) emphasises the importance of developing internal communication

channels to allow the transfer of information to and from the risk management section.

To reduce the risk of overlooking some risk exposures, risk identification should be approached in a systematic and orderly manner to be of value. One of the approaches to identifying risks is to consider the risks an organisation faces at the macro and micro levels. Valsamakis *et al.* (2010:108) describe the macro-level identification of risk as an analysis of all the major sources and types of risks impacting on the business. This can be done through an analysis of the industry in which the business organization operates, its structure and major competitors, economic markets, country dynamics, and the impact of environmental factors that can affect the business. Macro risk identification tools include, among others, the SWOT analysis, organisational and flow charts and analysis of financial statements and insurance reviews.

Micro risk identification entails the analysis of macro risks to identify specific risk exposures inside the broader category. Micro risk identification methods include risk inspections, Hazard and operational studies (HAZOP), Failure mode and effect analysis, safety audits, personal interviews, analysis of documentation such as statutory records, management information, contracts, legislation, standards and codes of practice, to name a few.

IRMSA (2014:37), moreover, believes that different risk identification methods apply to different levels in an organisation. At a strategic level, methods such as competitor analysis, market trend research and PESTEL/SWOT analysis are applicable, while at an operational level, methods such as risk registers, audits, sales performance reports and accounting information may be used. At the activity or project level, task-based assessments, project risk registers and Gantt charts may be valuable for the identification of risks.

Information on all the identified risks and opportunities should be reflected in a risk register. Ideally, the risk register should include a full description of the identified risk, the particular risk category it resides under, and if possible, the risk owner (person or department responsible for that particular risk category.) The risk register should be as complete and detailed as possible, as it may be utilised as an important input in the analysis stage of the assessment process. Hopkin (2018: 110) sees the risk

register as an agreed record of the significant risks that have been identified. Hopkin (2018:114) proposes that the risks set out in the risk register need to be precisely defined in terms of cause, source, event, magnitude and impact. Existing control activities, as well as proposed control activities, must be included and be described in precise terms.

Hopkin cautions that when a risk assessment of strategic options is undertaken, it is more usual for the risk assessment to be used as part of decision-making and that the information will typically not be recorded in the format of a risk register, but rather be presented to the decision-maker as part of the full range of information available for making the strategic decision.

Once risk and current control measures have been identified, they need to be analysed. Risk analysis is discussed in the next section.

Risk analysis

ISO (2018:12) states that the purpose of risk analysis is the comprehension of the nature of risk and its characteristics. They maintain that risk analysis involves a detailed consideration of uncertainties, risk sources, consequences, likelihood, events, scenarios, controls and their effectiveness. Young (2018:78) adds that the objectives of risk analysis are to separate the minor, acceptable risks from the major risks, and to provide data to assist in the evaluation and treatment of the risks.

Fraser and Simkins (2010:107) agree, and view risk analysis as seeking a sufficient understanding of the identified risk exposures to enable the risk manager to make appropriate risk treatment and acceptance decisions. In line with these authors, Chapman (2011:186, 195) describes the primary goal of risk analysis as “the assessment of both risk and opportunities in terms of their probability and impact to ensure that management action is prioritised to respond to the most serious risks first”.

ISO (2018:12) states that risk analysis should consider factors such as the likelihood of events and consequences, the nature and magnitude of events and consequences, the complexity and connectivity between risks, time-related factors and volatility, the effectiveness of existing controls and sensitivity and confidence levels.

Both quantitative mathematical models and qualitative techniques, reflecting expert opinions and in some cases, gut feelings, can be used to assess the potential impact and severity of identified risks. According to Young (2018:96), quantitative approaches aim to quantify the risk in numerical terms to determine the potential impact on the organisation. Qualitative approaches are used where the risk exposures cannot be numerically expressed. The exposures can then be analysed in terms of rating scales to determine their possible impact and likelihood. The particular approach/method used will therefore be dictated by the nature of the risk exposure and available data.

Loss frequency/likelihood refers to the number of times a loss event occurred over a specific period of time or a specified interval. Young (2018:82) points out that the likelihood of risk should be assessed by taking into account the current conditions and processes available to restrict the event from occurring. The likelihood of risks can be depicted on a scale from, for example, low, moderate and high. The levels of the scale should be clearly defined, as well as the indicators on which the particular scale is based. The number of levels on the scale will depend on the data available. Where historical data is available, it would be possible to depict the likelihood of potential events using probability distributions such as normal, binomial and/or Poisson distributions (Chapman, 2011:188). Rectangular and triangular distributions are used, where little or incomplete modelling data is available. The type of distribution to be used will be dictated by the nature of the data and the type of exposure.

Risk indicators can be obtained from historical and statistical data. It is also important to identify changes that may impact the likelihood of losses. These can be done through an analysis of national and international trends and incident reports. Where little information is known about a risk exposure, the Pareto rule can be applied to evaluate potential losses.

The likelihood of risk can also be numerically expressed as the probability of a loss. Probability refers to the long-term frequency of an event and is expressed as a number ranging from 0 to 1. The number 1 indicates absolute certainty that the event will happen, while 0 indicates that there is no likelihood of the event happening. A probability distribution can be developed where all possible events are listed, and a probability is assigned to each event. Where historical data is available, it would be

possible to depict the likelihood of potential events using probability distributions such as normal, binomial and/or Poisson distributions (Chapman, 2011:188). Probability distributions are indicative of the riskiness of an event and are very useful in the evaluation of risk.

Risks can also be analysed in terms of the cause of an event. Fraser and Simkins (2010:107) explain that the basic idea behind a root cause analysis is to determine the fundamental cause of the loss. Once the root cause is treated, then the risk consequence can be modified. Tools that can be used to analyse risk in terms of cause and effect include Causal analysis, Failure modes and effects analysis (FMEA), HAZOP studies, Fault tree analysis, Event Tree analysis, the Structured What-if Technique (SWIFT) and Bayesian networks.

ISO (2018:12) points out that risk analysis may be influenced by the opinions, perceptions and judgements related to risks. The quality of information used, assumptions made and limitations concerning the techniques used, and how it was executed may also influence risk analysis. ISO proposes that these influences should be considered, documented and communicated to decision-makers.

Chapman (2011:188) emphasises that the risk register should be updated to include the probability and impact of each risk or opportunity to serve as input in the risk evaluation phase, which will be discussed in the next section.

Risk evaluation

IRMSA (2014:41) states that risk evaluation, the last step in the risk assessment process, involves comparing the risk against pre-determined criteria to specify the significance of the risk to the organisation's objectives. ISO (2018:12) proposes that risk evaluation involves comparing the results of risk analysis with the risk criteria to determine where additional actions are required. ISO states that this can lead to a decision to do nothing further, consider risk treatment options, undertake further analysis to better understand the risk, maintain current risk controls, or reconsider the objectives.

Chapman (2011:197) sees the primary goal of risk evaluation as assessing the aggregated impact of both risk and opportunities on the organisation as a whole, or specific projects. IRMSA (2014:41) maintains that all available information should be

used in the evaluation stage, including relevant risk thresholds specified in terms of legal, ethical, financial and other constraints.

ISO (2018:13) concludes that the outcome of risk evaluation should be recorded, communicated and validated at appropriate levels of the organisation.

Once risks have been identified and evaluated, options should be selected and implemented that will address the risks. In the next section, the treatment of risk will be addressed.

2.5.4.4 Risk treatment

ISO31000 (2018:13) explains that risk treatment involves an iterative process of formulating and selecting risk treatment options, planning and implementing risk treatment, assessing the effectiveness of that treatment, deciding whether the remaining risk is acceptable and, if not acceptable, taking further treatment measures.

IRMSA (2014:43) comments that risk treatment is a cyclical process, commencing with assessing a current or proposed response for suitability and effectiveness. When deciding on how to respond to a risk, one should determine if the residual levels are acceptable, and if not, what additional responses might be required to manage risks in line with the risk tolerance and risk appetite thresholds.

Hopkin (2018:171) believes that different approaches need to be taken for different types of risk when deciding on how much risk the organisation will take. Hazard risks will give rise to hazard tolerance, control risks will give rise to control acceptance, and opportunity risks will give rise to investment appetite which will determine the total or actual risk exposure of the organisation. Compliance risks are normally minimised and will have compliance controls embedded in the core processes of the organisation.

Risk capacity is another important measure of how much risk an organisation should take or can afford to take. Hopkin concludes that the risk appetite of the board should be in line with the risk capacity of the organisation, but at the same time, it should be greater or equal to the actual risk exposure that the organisation faces.

There are different risk treatment options available. Hopkin (2018197) identifies the 4Ts of hazard response as:

- **T**olerate (to accept or retain the risk);
- **T**reat (control/reduce the risk);
- **T**ransfer (by using insurance or contractual mitigation); and
- **T**erminate (avoid or eliminate the risk).

Hopkin (2018:203) proposes a range of responses available to opportunity risks, being the 4Es of opportunity risk. The 4Es include **E**xist (in mature and declining markets), **E**xplore (entrepreneurial opportunities), **E**xploit (opportunities until competitors arrive) and **E**xit (depending on risk appetite and capacity).

IRMSA (2014:43) identifies standard responses such as accepting or tolerating the risk, avoiding the risk, removing the source of risk, changing the likelihood of the risk, changing the consequence, transferring the risk and exploiting the opportunity.

ISO (2018:13) points out that when considering risk treatment options, not only economic considerations should be considered but also all of the organisation's obligations, voluntary commitments and stakeholder views. ISO maintains that the selection of risk treatment options should be made in accordance with the objectives, risk criteria and available resources of the organisation.

IRMSA (2014:44) points out that additional aspects should be considered when selecting risk treatment options, such as residual risk and its acceptability, the cost-to-benefit ratio of potential options, legal and regulatory requirements, solitary response options or a combination of options, values and perceptions of stakeholders, inter-dependencies of risk treatment options, and secondary risks arising from the choice of the risk treatment option. Some options may also not be economically viable but still warranted, for example in the case of high-impact, low likelihood risks. It is, furthermore, important to determine whether sufficient investigation and resources were applied to the development of new risk treatment options.

ISO (2018:14) emphasises that decision-makers and stakeholders should be aware of the nature and extent of residual risk after risk treatment. These risks should be documented and be subjected to monitoring, review and further treatment where necessary.

ISO (2018:14) concludes that risk treatment plans must be prepared and implemented. Treatment plans should be integrated into the management plans and processes of the organisation after due consultation with stakeholders. Treatment plans should indicate the treatment option selected and the reason for its selection, the accountability and responsibility for approving and implementing the plan, the proposed actions and resources required, the performance measures, the constraints, the required reporting and monitoring, as well as when actions are expected to be undertaken and completed.

The ongoing monitoring and review should take place in all stages of the risk management process. Risk monitoring and review will be discussed in the next section.

2.5.4.5 Monitoring and review

ISO (2018:14) sees the purpose of monitoring and review as assuring and improving the quality and effectiveness of process design, implementation and outcomes. It involves an ongoing process of planning, gathering and analysing information, recording results and providing feedback. The results should be incorporated throughout the organisation's performance management, measurement and reporting activities.

IRMSA (2014:49) states that the results of the risk monitoring and review process should be recorded and reported appropriately, and also serve as input during the cyclical review of the risk management framework. The ISO31000:2018 standard sees risk recording and reporting as part of the governance of an organisation. These two aspects will be explained in the next section.

2.5.4.6 Recording and reporting

The ISO31000:2018 standard proposes that the risk management process and its outcomes be documented and reported to facilitate communication on risk management activities and outcomes across the organisation, to provide information for decision-making, to improve risk management activities, and to assist with the interaction with stakeholders.

IRMSA (2014:49) maintains that decisions on how risk management activities should be recorded should be taken with due consideration of the cost and effort involved in

the creation and maintaining of such records, the legal, regulatory and operational requirements involved in terms of records, how records would be accessed, retrieved and stored, how long records would be retained, the sensitivity of the information contained in these records and how it would be protected, and how the analysis of records could aid the organisation in its learning process. Risk reporting should enhance the quality of stakeholder dialogue and support top management and oversight bodies in meeting their responsibilities.

2.6 SUMMARY

A clear understanding of the nature and spectrum of the risk management discipline is needed to determine the role, function and competencies required from risk practitioners. Consequently, this chapter focused on risk and the risk management discipline. The concepts of risk and risk management were firstly defined and explained. It was indicated that as the complexity and speed of the business environment evolved, the interest in risk management increased. The evolvement of risk management from the traditional silo approach towards a broader, enterprise-wide approach was explained. Governance and Compliance and Strategic Risk Management as components of ERM were highlighted and explained. Various risk management standards were listed, followed by a more detailed reference to the ISO31000 standard. The architecture (principles, framework and process) for managing risk was discussed in the last sections of the chapter.

Lee and Shimpi (2019) maintain that it is apparent that ERM has moved from being an interesting management concept to an important management practice. They maintain that organisations are recognising the value of ERM in creating and improving shareholder value through risk-based decision-making and capital allocation. They maintain that organisations are giving increased attention to risk management by awarding it high-level accountability and responsibility as a legitimate strategic discipline. Lee and Shimpi believe that there is a prevailing trend related to creating ERM-specific roles, responsibilities and structures needed for the implementation of ERM as a management practice. They point out that the position of the Chief Risk Officer (CRO) has risen dramatically in prominence over the past few years, raising the following pertaining questions when it comes to the position of the CRO:

- What should the CRO do?
- What should the CRO look like?
- How does an individual become a CRO?

The Risk and Insurance Management Society (RIMS), in agreement, emphasises that to drive and sustain a risk management programme and to practise sound risk management, those responsible for leading risk activities in an organisation need to develop a specific set of competencies and skills (Hardy, 2015:209).

In the next chapter, the role and function of the risk practitioner will be investigated, followed by a review of the literature on risk management competencies and risk management competency models.

CHAPTER 3:
MANAGING RISK: ROLES, DUTIES AND COMPETENCIES

3.1 INTRODUCTION

Susan Meltzer, then President of The Risk Management Society (RIMS), at a risk management conference held in Johannesburg in 1999, predicted that the risk manager of the 20th century would have to evolve from a technical, internal resource that purchases insurance and handles claims, to a strategic thinker about risk. She believed that risk managers would be encouraged to see themselves performing a corporate function, understanding business processes and contributing to the overall success of the organisation (Guardrisk, 1999).

In line with Meltzer's predictions, Korn Ferry (a global organisational consulting firm) (2019) maintains that the global financial crisis of 2008 had elevated the role of risk management from the edges of the organisation to the centre and into the so-called C-suite. De Groot (2018) concurs and believes that the CRO position is becoming increasingly commonplace among modern enterprises, specifically due to the growth in the complexity of the risk landscape. De Groot states that having a single, highly qualified risk management professional to oversee efforts to reduce and mitigate risks is invaluable to the overall security profile of an organisation.

Summerfield (2014) concurs that the best way to ensure that organisations are sufficiently insulated from potential pitfalls is by establishing a well-rounded, top-down risk ERM strategy. He proposes that one of the most critical factors to consider when establishing a top-down approach to ERM is the role of the CRO. Korn Ferry (2019) agrees and points out that the role of the CRO has risen in prominence over the past decade, and that their profile has shifted from a behind the scenes technical risk and compliance role, that used to report to the Chief Financial Officer or legal council, to a strategic and important member of the CEO's inner sanctum. The International Institute of Risk And Safety Management (IIRSM) (n.d.:2) points out that organisations face a wide range of diverse and technological challenges, and that very few individuals have all the skills, knowledge and capacity to manage the risks involved, whether they be threats or opportunities. The IIRSM emphasises that

effective risk management requires a combination of specialised risk expertise, timely and empowered decentralised management decision-making and a central risk management system that coordinates and underpins organisational policies, processes, cultures and leadership at all levels.

Zaccanti and Roberts (2009) add that risk practitioners need an inventory of experience, education and professional skills to make them a valuable resource to the executive team of the organisation. They point out that although many risk professionals have similar titles, each risk professional's roles and responsibilities differ significantly across the industry, experience, technical skill, personal skill, and the leadership styles of individuals and organisations. They conclude that risk professionals should explore ways to improve personally and professionally across all risk management skill sets (technical, business acumen and soft skills).

The statements of IIRSM and Zaccanti and Roberts align with the research question of this study: “What are the competencies (including knowledge, skills, attributes, values and attitudes) needed by risk practitioners to enable them to meet the risk management challenges in South Africa?”

To give context to the research question, a literature review is structured to firstly define the role of the risk management professional; secondly to define the concept of competency and to focus on research findings relating to risk management competencies found in the literature; and thirdly, to consider work done by professional bodies in terms of risk management competencies. In the next section, the role and function of the risk practitioner/professional, with special reference to the CRO, will be investigated.

3.2 THE ROLE AND FUNCTION OF RISK PRACTITIONERS/ PROFESSIONALS

In the risk management discipline, various titles are ascribed to the individuals responsible for managing risk. The Pan-Asia Risk and Insurance Management Association (PARIMA) (2018) states that the titles of risk professionals are varied and inconsistent across organisations and industries. Some of the common titles include CRO, Enterprise Risk Manager, Insurance Manager, Head of Security, Head of Quality and Risk Management, to name a few. The title of CRO, however, seems

to be used in most literature when referring to the individual responsible for overseeing the risk management programme of an organisation. The Chief Risk Officer (CRO) is defined in the IRMSA Glossary of Terms (n.d:1) as “a paid executive of the organisation, who may have other duties/responsibilities, but who is *primarily* responsible for advising on, formulating, overseeing and managing all aspects of the organisation’s risk management system; and monitors the organisation’s entire risk profile, ensuring that major risks are identified and reported upwards”. IRMSA continues that the CRO provides and maintains risk management infrastructure to assist the Board of Directors and executive management in fulfilling their risk management responsibilities. A risk manager/ facilitator is defined by IRMSA as “an employee of the company who assists the CRO and the Head of Risk in the fulfilment of their duties”. These persons have an alternative reporting line to the CRO or report directly to the CRO. The IRMSA Glossary of Terms (n.d:5) also identifies the position of a risk owner, being the person or entity with the accountability and authority to manage risk.

De Groot (2018) maintains that companies often have to decide whether to appoint a CRO or whether to have a committee to oversee risks or both. Having a CRO communicates that an organisation is serious about risk management and illustrates to employees how important risk management is. Creating a risk committee, on the other hand, implies that a number of executives from different departments will be working together to reduce and manage risk. Some organisations might have a risk committee headed by a CRO. De Groot maintains that the responsibilities of a CRO largely depend on an organisation’s size and its industry. In general, the CRO is responsible for all risk management strategies and operations, as well as supervising the risk identification and mitigation procedures.

Hoffman and Peters (2016:28) maintain that the role of the CRO has changed considerably since the position was first introduced in the mid-1990s. They state that the first generation of CROs had the distinct task of developing and implementing an ERM framework. CROs were given a significant share of the budget to build risk models, to develop the risk function by hiring and training new people, enhancing systems and processes, establishing policies, governance and reporting structures, and catalysing a comprehensive change management programme in the organisation. Hoffman and Peters (2016) argue that since the role of the CRO was

primarily to quantify risks and manage the complexity of the insurance business, their role was mainly technically focused.

The role of the CRO evolved with the introduction of new legislation and regulations. Second-generation CROs were expected to build upon ERM principles and risk models and incorporate them into the risk culture of organisations. According to Hoffmann and Peters (2016:29), once the core risk management processes were in place, the role of the CRO advanced to participating in business decisions. They emphasise that the CRO had to earn the right to participate early in the decision-making process and exert influence over key decisions. To earn this acceptance, Hoffman and Peters emphasise that the CROs had to exhibit technical expertise and competencies such as business acumen, communication and negotiating skills, strong leadership values, a commitment to finding solutions and a strategic vision.

Hoffmann and Peters (2016:29) predict that third-generation CROs will be involved in front-line responsibilities, and will assume operational business responsibilities where necessary. Lee and Shimpi (2019) agree, and add that CROs in leading companies participate in policy-making and decision-making. They point out that the CRO is becoming instrumental in the following two policy-making areas:

- Assuring that the organisation has processes in place to comply with the heightened risk management expectations of shareholders, regulators, and even elected officials and attorneys.
- Developing and introducing an integrated framework to assist the organisation in mitigating risk and allocating capital to build shareholder value, with a full understanding of both the positive and negative potential of the risks involved.

Lee and Shimpi (2019) maintain that by managing a well-considered ERM strategy, CROs can balance the organisation’s portfolio of identified and quantified risks with a portfolio of capital resources to derive real value to the organisation. They add that CROs generally have a set of responsibilities that amount to creating a risk-aware culture in the organisation by overseeing the risk assessment and risk appetite of the organisation; familiarising the organisation, its shareholders, regulators and rating agencies with the ERM programme; implementing a consistent, integrated risk management framework throughout the organisation; managing the ERM

programme with particular emphasis on operational risk and developing ways to mitigate and finance risk in the larger business strategies of the organisation.

MetricStream (2018) believes that CROs, over the past few decades, have become indispensable to executive teams, particularly in their role of managing risk appetites, developing a risk framework and policies, and acting as advisors to the Board and the “C-suite”. MetricStream points out that with the advent of the fourth industrial revolution, technology is reinventing the way business is done. As technologies and business models change, the associated risks also change. MetricStream maintains that CROs are uniquely positioned to manage and mitigate these risks and/or help organisations to take advantage of the upside opportunities of these risks that allow for innovation and growth.

MetricStream states that this new role for the CRO will be a challenge and will require them to venture into new and complex risk areas, such as cyber-security risks, data privacy risks and third-party risks. These risks may, though, also present added opportunities to add real value to the organisation. In addition, MetricStream regards the traditional role of the CRO as that of an objective and unbiased advisor to the organisation, acting as a custodian of risk appetite, implementing a risk culture, and reducing income and valuation volatility through proper risk management processes. MetricStream predicts that the role of the CRO will evolve to include acting as a guardian of the digital universe, enabling digital innovation, building cyber-risk resilience, leveraging risk technology to predict risk outcomes, and integrating digital risks into the ERM framework. De Groot (2018) agrees that IT has become a crucial part of business and that the CRO naturally needs to address the risks associated with data breaches and hackers, and as such, be concerned with risk assurance and data protection.

De Groot (2018) maintains that the CRO is tasked with looking out for a variety of risks categorised as technical, regulatory and competitive. They also need to monitor procedures that may give rise to risk exposure, and ensure that plans of action are implemented to proactively and reactively address vulnerabilities and risks. According to De Groot (2018), the main responsibilities of the CRO include the following:

- Spearheading efforts relating to ERM;

- Implementing policies and procedures to minimise and manage operational risks;
- Managing compliance and other security-related issues;
- Developing risk maps and formulating strategic plans to minimise, manage and mitigate primary risks, and monitor the progress of these efforts;
- Creating and disseminating risk analysis reports and progress reports to different stakeholders, including employees, board members and C-suite executives;
- Ensuring that risk management priorities are reflected in the strategic plans of the organisation;
- Formulating and implementing risk assurance strategies that are related to the transmission, storage and use of information and data systems;
- Evaluating possible operational risks that may arise from human error or system failures and which might disrupt or affect business processes, as well as developing various strategies to minimise risk exposure and designating appropriate responses for human errors or system failures;
- Measuring the risk appetite of the organisation and setting the amount of risk that the organisation is able and willing to take on;
- Developing budgets for risk-related projects and supervising their funding; and
- Conducting risk assurance and due diligence on behalf of the organisation in the events of mergers, acquisitions and business deals.

Korn Ferry (2019) believes that the contemporary risk function is expected to operate in four key areas, namely, strategic partnership, culture, organisational capability and executive leadership and that the CRO will require the skills and experience necessary to act as a leader in each of these areas, as set out in Table 3.1.

Table 3.1: Key areas of the contemporary risk function

Key area	Responsibility of the CRO
Strategic partnership	▪ Offers counsel and is prepared to challenge the CEO, board and broader business.
Culture	▪ Understands the present culture and strategically steers and develops it to fit the needs of the organisation. ▪ Creates an environment where learning from mistakes is possible, while building a network across the organisation to embed a mature risk culture.
Organisational capability	▪ Creates and maintains a pragmatic, business-focused framework and systems to support risk/reward business decisions and culture. ▪ Considers internal and external factors in the design and coverage of the risk function. ▪ Partnering with business, enabling the organisation to take ownership of risk.
Executive leadership	▪ Creates a vision and purpose for the risk function that inspires excellence in the business partnership to create credibility and value. ▪ Balances the enterprise-wide framework, policy and process with forward-thinking capability. ▪ Considers future challenges, including succession and future-proofing the risk function.

Source: Korn Ferry (2019)

The Malta Association of Risk Management (MARM) (2017) bases the role of the risk manager on the risk management process, as described by ISO31000. MARM refers to it as the 7 Rs, as follows:

- Recognition or identification of risk
- Ranking or evaluation of risk
- Responding to significant risks
- Resourcing controls
- Reaction planning
- Reporting and monitoring risk performance
- Reviewing the risk framework

Using the elements of the process, MARM maps the elements to the following risk manager roles:

- Define risk architecture
- Risk assessment
- Risk response
- Monitoring and reporting

In addition, MARM considers the management of risk culture as a central part of the role of the risk manager. MARM developed a document entitled “The Core Competencies of the Professional Risk Manager” in which the tasks associated with each role are described, and the likely requirements supporting the achievement of these goals are set. MARM also outlined the competencies required of a risk manager to effectively carry out his or her roles. These competencies will be discussed in the section on risk competencies.

Lee and Shimpi (2019:3) opine that risk managers should possess many of the skills that go into making a good CRO. They propose that effective risk managers should understand all the important aspects of the business. They believe that for risk managers to recommend the best risk management and financing approaches, they must have a strong working knowledge of the operations, finances, legal issues, buyers, suppliers, raw material inputs, finished products, in other words, the total value chain of the organisation. Lee and Shimpy continue that risk managers also need a comprehensive understanding of how to deal with the internal and external constituents of the organisation, as well as those in the organisation who do not have a risk management foundation.

Sheralee Morland, then president of IRMSA, mentioned in the IRMSA March 2017 Newsflash that the role and function of the CRO was under discussion during an executive strategy meeting of IRMSA. She stated that there was wide consensus that the traditional management expectations, such as frameworks, policies, procedures and risk registers, were a given and an essential foundation that should be in place. All these traditional management tasks needed to be regularly refreshed, should be embedded throughout the organisation, and their effectiveness tested (Morland, 2017:3).

In addition, the executive identified additional tasks that the CRO of the future will be expected to perform. These tasks are set out in Table 3.2 below.

Table 3.2: Tasks of a South African-based CRO

Tasks
▪ Lead and provide direction in rigorous risk strategy initiatives. ▪ Comprehensively document risk strategy initiatives in board-approved risk plans. ▪ Have a deep understanding of risk appetite and its uses. ▪ Enhance stress testing in the ever-increasing fast-paced, changing and volatile environment. ▪ Provide guidance and advice. ▪ Collaborate by creating conduits linking multiple disciplines in the organisation and connecting the dots, and being assessable. ▪ Manage opportunities by focusing on the upside of risk. ▪ Be responsible for exceptional risk reporting by showcasing the risk actions in useful dashboards and comprehensive reports that are easy for directors/ stakeholders/ decision-makers to understand. Be a business confidant/advisor for those positions on the key committees in the organisation's governance structures. ▪ Maximise the organisation's corporate insurance expense by demonstrating the extent of the effectiveness of risk management to curtail the ever-increasing insurance premiums. ▪ Become influential and valuable to boards. ▪ Be resilient. ▪ Focus on risks other than the conventional and well-established risks, for example, cyber-risks, reputational risks, corruption risk. ▪ Enhance scenario planning and raising of risk flags. ▪ Do root cause analysis to prevent the recurrence of losses/ errors/ control breaches. ▪ Give optimal effect to King IV.

Source: Morland (2017)

Lee and Shimpy (2019) maintain that the present risk managers are not necessarily the first choice for the position of CRO. They maintain that despite their breadth of experience, risk managers often tend to present themselves as technical experts rather than communicators, facilitators and leaders. They believe that if risk managers are to rise to this new position they will have to develop a new set of skills and attributes.

In the next section, the concept of competency will be defined, followed by a literature review on risk management competencies.

3.3 RISK MANAGEMENT COMPETENCIES

3.3.1 Competency and competency approaches

Le Diest and Winterton (2005:27) argue that the term 'competence' generally refers to functional areas, whereas the term 'competency' refers to behavioural areas, but

that the terms are used inconsistently and interchangeably. The Enterprise Risk Management Academy (ERMA) (2021) maintains that people are considered to be competent when they can apply their knowledge and skills to successfully complete work activities in a range of situations and environments, to the standard of performance expected in the position they occupy.

Competence is defined by Draganidis and Mentzas (2006:53) as “a combination of tacit and explicit knowledge, behaviour and skills that give someone the potential for effectiveness in task performance”. For their part, Guerrero and De los Ríos (2012:9) consider professional competency to be “a composite of the personal attributes, knowledge, values, skills, abilities, actions and experience of the professional task being undertaken”. Since risk management is regarded as a profession (as witnessed by professional bodies such as RIMS of the USA and IRMSA in South Africa), the view of competency offered by Guerrero and De los Ríos was regarded as the most relevant for this study. However, it is clear that all the cited definitions have in common that competency is a combination of knowledge, values, skills, attributes, attitudes, behaviour and experience.

Draganidis and Mentzas (2006:52) state that the competency approach to human resources management is not a new concept and point out that the early Romans practised a form of competency profiling to determine the ideal attributes of a “good Roman soldier”. They point out that the introduction of competency-based approaches in the corporate environment initiated around 1970, and have proved to be a critical tool in many organisational functions such as workforce and succession planning and performance appraisal. Draganidis and Mentzas list the following two reasons for selecting these approaches:

1. They identify the skills, knowledge, behaviours and capabilities needed to meet current and future personnel selection needs in alignment with the differentiation in strategies and organisational priorities.
2. They can focus the individual and group development plans to eliminate the gap between the competencies required by the project, job role or enterprise strategy and those available.

Le Diest and Winterton (2005:27) found that one-dimensional frameworks or approaches to competence, such as the core competence (strategic management)

approach and Human Resource Development (HRD) approach, were inadequate and gave way to multi-dimensional frameworks. They maintained that the management strategists emphasised competencies unique and firm-specific, while the HRD approach was more concerned with developing highly transferable generic competencies. Koh, Avvari and Tan (2015:581), in agreement, state that to succeed, business organisations need comprehensive competency development. They conclude that existing approaches are inadequate because they focus on specific technicalities, people and internal firm matters, instead of tackling the issues comprehensively.

Koh *et al.* (2015) propose a three-dimensional framework comprising of core competencies, dynamic competencies and the learning organisation. They believe that the proposed framework guides competency development more comprehensively in that it integrates the three concepts, rather than studying each in isolation.

Le Diest and Winterton (2005:27) point out that training and development initiatives in the USA, UK, France and Germany focused on the clarification of the competency concept by incorporating knowledge, skills and competencies in a holistic competence typology. They further maintain that functional and cognitive competencies are increasingly being added to the occupational functional competency model. According to Le Deist and Winterton (2005:39), a holistic typology of competence is useful in understanding the combination of knowledge, skills and social competencies that are necessary for particular occupations.

Le Deist and Winterton (2005) maintain that the competencies required of an occupation include both conceptual (cognitive, knowledge and understanding) and operational (functional, psycho-motor and applied skill) competencies. The competencies associated with individual effectiveness are also both conceptual (meta-competence, including learning to learn) and operational (social competence, including behaviours and attitudes). The relationship between the four dimensions of competence is demonstrated in Figure 3.1.

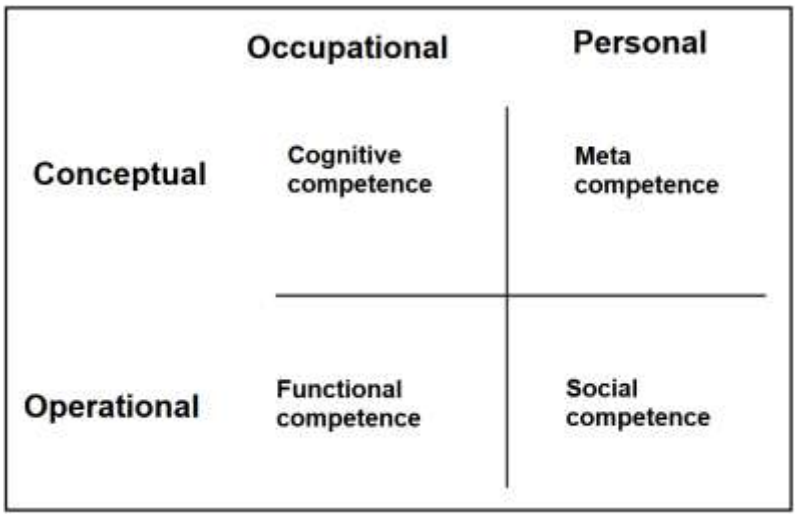

Figure 3.1: Typology of competence

Source: Le Deist & Winterton (2005:39)

In Figure 3.1, 'cognitive competence' refers to knowledge and understanding, while 'meta competence' is related to the ability to learn and reflect, as well as the ability to cope with uncertainty. 'Functional competence' refers to skills or 'know-how'; in other words, things a person in a particular occupation should know or be able to demonstrate. 'Social (behavioural) competence' is related to the people skills, behaviours and attitudes of the individual, and may be defined as "the ability and willingness to cooperate, to interact with others responsibly and to behave in a group and relationally-oriented way" (Le Deist & Winterton, 2005:38).

Guerrero and De Los Ríos (2012:1295) are in support of holistic competency models and believe that these models consider the complexity of the integration of knowledge, abilities and skills. They suggest that these models incorporate ethics, values and reflective practices as elements of successful performance. They believe that it is the most simplistic model, containing analyses and essential elements that facilitate its direct application to professional competencies.

Several risk industry and professional associations, such as RIMS, PARIMA, IIRSM, AMREA (*Management des Risques et de Assurances de L'entreprise*) and ERMA have developed risk competency models and standards. Most of these models and frameworks are structured in line with the comprehensive approach to competency development frameworks. Some of these models and frameworks will be discussed in Section 3.4 of this chapter.

The next section focuses on research findings related to risk management-specific competencies found in the literature.

3.3.2 Risk management competencies

Louisot (2003:26–30) proposes four areas of risk competencies, namely general management, the risk management process, leadership, and communication, as well as sector-specific knowledge. Under each of these four areas of competencies, Louisot (2003) identifies sub-categories, as summarised in Table 3.3.

Table 3.3: Competency areas and sub-categories

Area of competency	Sub-categories
General management	Human resources
	Technical resources/Operations
	Information resources
	Business partners
	Financial resources
The risk management process	Diagnostics and risk mapping
	Risk treatment (risk control and risk financing)
	Auditing and monitoring results
Leadership and communication	Leading and communicating with internal and external stakeholders
Sector-specific knowledge	Private sector entities (industrial/ commercial/financial)
	Public entities (national/provincial and local authorities)
	Health care organisations (public and private)
	Not-for-profit organisations and nongovernmental organisations (NGOs)

Source: Louisot (2003)

Korn Ferry (2019) states that risk leaders must have the political skills to navigate and manage complex relationships with regulators, boards, the C-suite, and other external stakeholders. They continue that risk leaders must also have the business acumen to oversee current business operations, as well as the strategic agility to model for future outcomes. Korn Ferry maintains that the CRO needs to have the strategic foresight to implement plans that qualify acceptable levels of exposure and

minimise business losses. In addition, CROs need the capability to work with the board to determine the risk appetite and tolerances and to ensure that processes are in place to keep the organisation operating in line with those tolerances, with due consideration of the global political, economic and social factors that influence their organisation and industry.

Caldas (2016) believes that risk managers need to have financial acumen, analytical skills and an eye for detail. They should also have industry and market knowledge, the ability to endure and work under stress, technical skills, the ability to influence people, and good negotiation, communication and presentation skills. In addition, they require a strategic thinking capability, should be able to adhere to regulations and have networking abilities. Finally, according to Caldas (2016), risk managers should have academic credentials in finance and risk.

Harvey (2021) points out that as with most C-suite roles, communication skills are in high demand for CROs. She also mentions that knowledge of the business (statistical, actuarial, financial, economic modelling skills), strategic insights, ethical leadership skills, ability to measure risk versus reward, analytical and math skills, understanding the organisational goals and objectives, a solid grasp of credit and financial market cycles, empathy and objectivity, influence and persuasion, common sense and judgment, consistency and accountability, and an understanding of performance management are qualities that are sought out in aspiring CROs.

Towers Watson (a global multinational risk management, insurance brokerage and advisory company) (2014) identifies four key skills that a CRO should possess, namely, leadership, influencing, communication and technical skills, as reflected in Table 3.4.

Table 3.4: Chief Risk Officer's key skills

Skill	Explanation
Leadership	▪ Must be a strategic thinker and a catalyst of change, driving innovation and change, and looking for opportunities to achieve a profitable balance between risk and reward. ▪ Must be able to promote a positive risk culture and improving risk management capabilities. ▪ Must be able to drive and coordinate various risk management teams in the implementation of the risk management framework. ▪ Must possess credibility and be viewed as a key player in the management team. ▪ Must have a clear vision on how to deliver value to stakeholders.
Influencing	▪ Must have the ability to oversee the entire risk framework and ensure the allocation of risk ownership. ▪ Must have persuasive powers to get risk owners to participate actively in the measurement, control and mitigation of risks. ▪ Must be able to educate the organisation on the benefits of risk management. ▪ Must deliver timely and expert advice and provide guidance on risk issues and the risk related to new initiatives and strategic decisions.
Communication	▪ Must b able to convey complex information to the board, senior management and key external stakeholders. ▪ Must be able to provide information in a clear, concise, timely and understandable manner. ▪ Must be able to communicate at all levels of the organisation, using business language to engage with key stakeholders so that he or she can gain trust as a valued advisor.
Technical	▪ Must have a good understanding of capital management, allocation concepts and methodology. ▪ Must have good risk management skills and knowledge of the techniques related to risk identification, evaluation, managing and control. ▪ Must be able to create a risk framework for the organisation. ▪ Must have a clear understanding of regulatory and compliance issues and policies, and ensure that the organisation meets the expectations of regulators, rating agencies and investors.

Source: Towers Watson (2014)

A study by Leaver and Reader (2016) investigated how non-technical skills influenced the management of risk and performance in trading environments. They found decision-making, leadership, situational awareness and teamwork to be important non-technical skills and determinants of risk management and performance.

MARM (2017) suggests that the role and requirements of a risk manager require a mixture of hard and soft skills. In terms of hard skills, they maintain that the risk manager should have a strong understanding of risk management and related concepts, including business basics, the essentials of risk management, risk assessment, risk treatment, and risk monitoring and reporting. In terms of soft skills, they believe that competencies, such as communication skills, creativity and adaptability, cultural awareness, inquisitiveness, management/leadership, integrity, and organisation skills are needed by risk managers in efficient ERM management.

According to Hopkin (2018:342), risk management is increasingly being seen as a profession, and a risk professional should possess a range of both technical (hard skills) and people skills (soft skills). The technical skills are divided between risk management technical skills and business technical skills. Risk management technical skills include the skills associated with the planning of a risk management strategy, implementing a risk management architecture, measuring risk management performance, and learning from risk management experiences. Hopkin points out that business technical skills will differ according to the type of organisation but generally include skills related to accounting, finance, legal affairs, human resources, marketing, operations and information technology. Soft skills, according to Hopkin, include communication skills, good interpersonal relationships, and analytical and management (including self-management) competencies. In addition, Hopkin believes that a risk professional should have political skills and be able to influence, negotiate with and motivate others.

Furthermore, the risk professional should possess problem-solving and decision-making capabilities, as well as a sound knowledge of business and risk management. Hopkin points out that technical skills are associated with intellectual intelligence, while people skills are associated with emotional intelligence. He emphasises that a risk professional should possess both intellectual and emotional intelligence to be efficient in the management of risk.

To reflect on some risk management competency requirements in the South African context, four risk management job descriptions that were published on the IRMSA website domain were analysed in terms of job title and required qualifications, skills and competencies. The different job positions were numbered to protect the identity of the organisations involved and are reflected in Table 3.5.

Table 3.5: Risk management competencies – A South African perspective

	Job Title	Qualifications, skills and expertise
1	**Risk Manager**	▪ Relevant tertiary qualification ▪ At least two to three years of practical knowledge of risk management and risk management frameworks, especially in a financial services context ▪ Member of IRMSA or interested in working towards IRMSA membership ▪ Excellent interpersonal and communication skills ▪ Reliable ▪ Adaptable ▪ Attention to detail ▪ Deadline driven ▪ Organised and self-disciplined ▪ Professional attitude ▪ Good understanding of business processes and functions ▪ The ability to work under pressure
2	**Risk Specialist**	▪ A bachelor degree or equivalent in risk management or related field with at least five years of experience in risk management, compliance, audit or related experience ▪ Membership of a professional body ▪ Practical experience in risk identification/assessment, root cause analysis and recommendation ▪ Knowledge of corporate governance and risk management disciplines and best practice ▪ Sound understanding and working experience in ERM practices and philosophy, including design and implementation of processes and systems
3	**Risk and Compliance Specialist**	▪ Minimum requirement: Post-graduate qualification in finance, risk or internal audit ▪ In excess of six years' experience in a risk-focused/internal audit-focused role ▪ At least three years of exposure to senior management ▪ Strong communication and stakeholder management skills ▪ Preferred certification in risk management or internal audit ▪ Member of IRMSA/Institute of Internal Auditors ▪ Working knowledge of data analysis **Experience/skills:** ▪ At least six years of internal auditing and/or risk management experience in roles that performed work with minimal supervision ▪ Demonstrable evidence of being able to work in a team of competent, respected governance, risk and compliance professionals, and evidence of always striving for continuous improvement of self and team with regard to risk and compliance management processes ▪ Demonstrable ability to communicate effectively (verbally and in

	Job Title	Qualifications, skills and expertise
		writing) ▪ A proven exceptional understanding of governance, risk and compliance as well as industry developments in the governance space ▪ Attention to detail is critical **Competencies: Behavioural:** ▪ Holistic thinking ▪ Risk management ▪ Critical reasoning ▪ Persuading and influencing ▪ Relationship management ▪ Teamwork ▪ Stakeholder management **Competencies: Technical** ▪ Understand relevant risk management and compliance software ▪ Knowledge of Enterprise-wide Risk Management Process ▪ Financial management ▪ Knowledge of relevant legislation ▪ Advanced MS Word; Advanced MS Excel; Advanced MS PowerPoint; Moderate MS SharePoint Portal ▪ Advanced understanding of risk/internal audit practices and processes ▪ Excellent interpersonal skills ▪ Organised, methodical, and detail-orientated; ability to prioritise and effectively manage multiple projects and tasks concurrently, from start to finish ▪ Self-starter and quick learner ▪ Excellent report writing skills ▪ Customer service orientation (internal and external) ▪ Solution driven and flexible approach ▪ Efficient administration processes ▪ Possess cultural awareness and sensitivity
4	**Chief Risk Advisor**	▪ Recognised Postgraduate degree relevant to Risk Management ▪ Full member of a professional institution such as IRMSA ▪ At least 10 years of risk management experience ▪ Have held a CRO or senior risk management position in an organisation with regular interface with the executive and board of directors/risk committee or equivalent ▪ Must show evidence of the ability to train and facilitate risk management sessions ▪ Must show evidence of ability to develop risk frameworks, risk methodologies, appetite and tolerance models, including key risk indicators and associated training material ▪ Experience in the preparation and writing of risk

	Job Title	Qualifications, skills and expertise
		documents/reports/ case studies ▪ Understand the risk management industry and have strong technical knowledge ▪ Must have demonstrated national, international and professional credibility in enterprise-wide risk management and possess a network of risk management experts/professionals **Qualities:** ▪ Work well in, and have led, a team of risk professionals ▪ Keeps abreast of national and international events and risk, and regularly monitoring ▪ The ability to provide rational opinions in risk and risk methodologies ▪ Manage people and have a track record of delivering sizeable projects ▪ Demonstrate the capability to deliver presentations to large audiences ▪ Strong communicator ▪ Multi-tasker ▪ Self-starter ▪ Track record of completing various projects successfully ▪ Networker ▪ Strategic thinking abilities ▪ Demonstrate strong analytical skills ▪ Attention to detail ▪ Strong EQ

Source: careers @ irmsa (2017-2020)

AMREA (*Management des Risques et de Assurances de L'entreprise*) (2013) notes that risk management professionals are thriving and growing in organisations both in France and the rest of the world, but that the profession is also undergoing tremendous changes. They add that in heightening the visibility of the risk manager's profession, their level of technical skills and their added value, it has become necessary to develop the risk manager's set of core competencies, presenting a true framework that will enable an understanding of the activities and tasks undertaken and skills needed by the risk manager. Various competency frameworks, models and standards have been developed by international risk management professional bodies to assist professionals with the progression of their careers. The purpose of these models, frameworks and standards is to outline the knowledge, skills and behavioural attributes that are essential for risk managers at the various stages of

their careers to enable them to succeed and contribute to their organisations in a meaningful way.

The next section discusses some of the main competency models, frameworks and standards that have been developed by Risk Management Professional bodies.

3.4 RISK MANAGEMENT COMPETENCY MODELS AND STANDARDS

According to Draganidis and Mentzas (2006:55), a competency model is defined as a “narrative description of the competencies for a targeted job category, occupational group, division, department or other units of analysis”. They state that the purpose of a competency standard, on the other hand, is to “identify the essential skills and knowledge workers must have and it defines the performance levels they must achieve to demonstrate competency in a specific work segment or function”.

RIMS developed a Risk Management Professional Core Competency Model to be used in conjunction with the RIMS Professional Growth model. RIMS (2017:1) emphasises that these models were designed for guidance, and not as requirements, as individuals may demonstrate stronger skills in some areas than others, rather than demonstrating strong skills in all areas.

The RIMS Risk Manager Professional Core Competency Model illustrated in Figure 3.2 encompasses the expected competencies in seven areas: core competencies, attributes, organisational knowledge, business knowledge, risk management knowledge, technical skills and management skills. RIMS (2017) regards core competencies as those “fundamental for successfully performing as a risk management professional, irrespective of the level of experience or training”. The five core competencies identified by RIMS are business insight, integrity/ethics, communication, collaboration, and consultation.

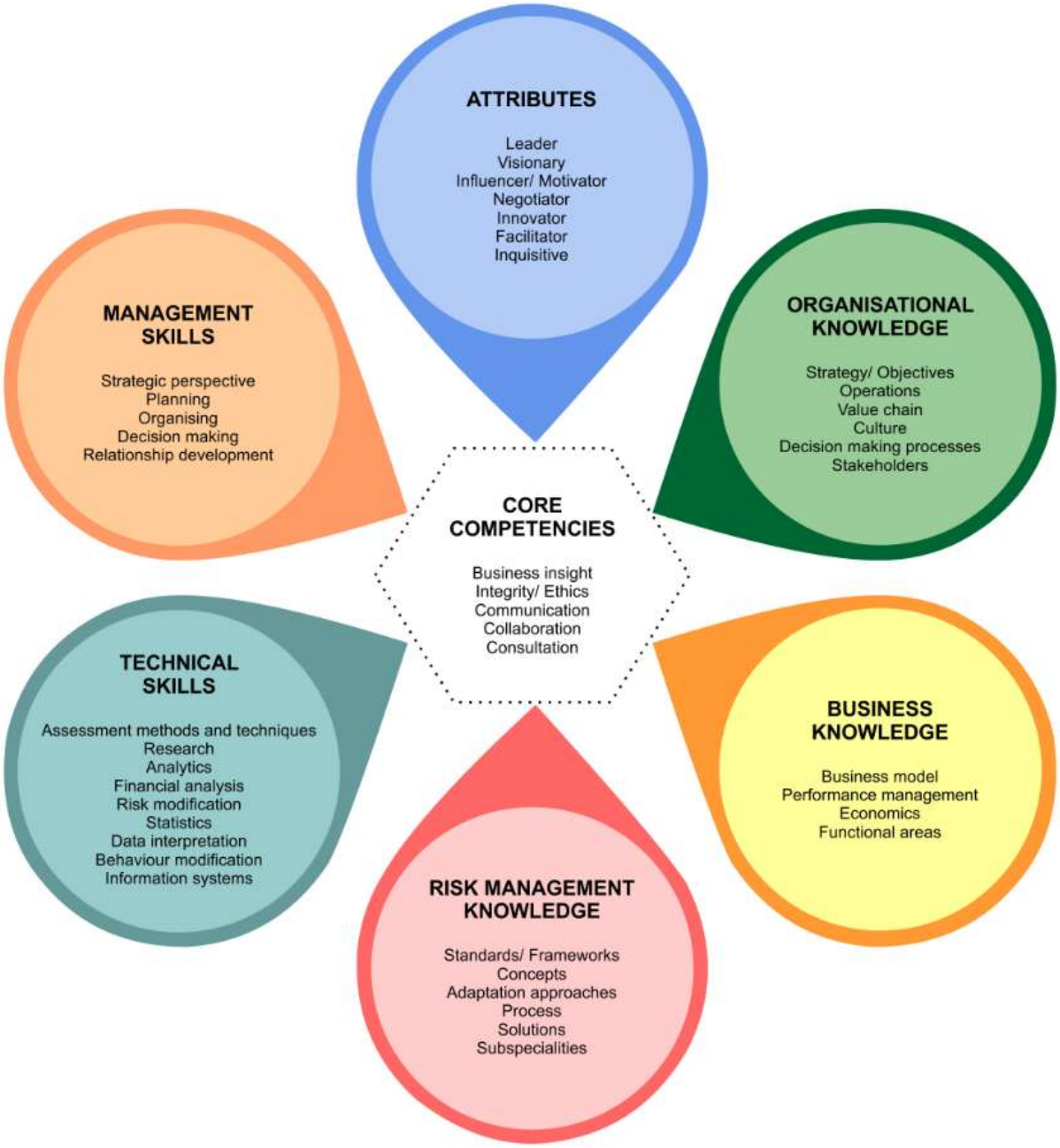

Figure 3.2: RIMS risk management professional core competency model

Source: RIMS (2017)

RIMS maintains that the knowledge and skills reflected in the skills areas can be learned, while technical and management skills reflect a wide-ranging level of experience. Hardy (2015:209) mentions that the RIMS model reflects components of best practices and best theoretical models preferred by the RIMS Fellow Advisory Council, the American Society for Training and Development, and basic business management text. She maintains that the RIMS model took the best ideas from

many models and modified them to reflect the many different skills required for risk management.

The various areas of competencies as set out in the RIMS Risk Management Professional Core Competency Model are presented in Table 3.6.

Table 3.6: RIMS Risk Management Professional core competency areas

COMPETENCY AREA	TASKS/ROLE
Core competencies These competencies are fundamental to successfully performing as a risk management professional, irrespective of the level of experience or training. It forms the foundation for being able to apply the related knowledge and skills components of the model for the needs of the organisation.	**Business insights:** provide perspective, understanding or reasoning that furthers understanding of a situation or issue for the organisation's benefit. **Integrity/Ethical judgement:** demonstrate a high level of ethical behaviour as evidenced by competence, due diligence, transparency, honest actions and commitment. **Communication:** Ability to listen and understand another's point of view and to articulate effectively, tactfully and respectfully in speech, in writing, in presentations and in public speaking. Exhibit style, substance and character. **Collaboration:** Ability to cooperate with others to achieve a common goal, share relevant information, foster enthusiasm and maintain mutual trust, candour and respect. **Consultation:** Ability to seek, capture, consolidate, and share information and insights, as well as to advise on potential alternatives for managing risks.
Attributes Qualities, characteristics and behaviours that, when displayed, will assist risk management professionals in getting things done in areas where they do not hold direct responsibility. These attributes are particularly of importance when adapting and integrating a horizontal, portfolio approach to risk management across an organisation.	**Leader:** Ability to inspire others' behaviour toward the goals of the organisation, possesses high emotional intelligence, builds trust, while maintaining confidentiality, and has the capacity to mobilise others to act. **Visionary:** having or showing clear ideas about what should happen or be done in the future; imagining what it could be. **Influencer/Motivator:** Ability to inspire self and others to pursue and deliver on the enterprise's objectives; viewed as trustworthy and credible. **Negotiator:** Ability to listen and manage conflicts and achieve compromise while meeting meaningful goals and respecting other parties' perspectives. **Innovator:** Employ a sense of foresight to create pioneering concepts, connections and solutions. **Facilitator:** Ability to help a person or organisation to do something more easily; enable others to think through one or more issues; organise process for free flow of information-sharing in various settings. **Inquisitive:** Ability to be creative and curious; seeking new solutions to challenges; be adaptable, flexible and open to change.

COMPETENCY AREA	TASKS/ROLE
Organisational knowledge Risk management professionals at all levels are expected to know unique aspects of their respective organisations: its industry dynamics, its operating environment, and activities undertaken to achieve its strategy, goals and objectives.	**Strategy/Objectives:** Demonstrate an understanding of the long-term and short-term plans and activities to achieve the organisation's strategy. Know the SWOT analysis of the organisation; keep up with key industry trends and developments; know key customers and competitors; know how to differentiate organisation from competitors. **Operations:** Ability to understand all the activities of the organisation, how the pieces fit together, and how the organisation can achieve its strategic goals. Knowledge of business functions, its process design, capacity planning and scheduling, supply chain management, distribution and quality control. **Value chain:** Ability to analyse and understand the series of internal and external activities and processes that create and build value at each step of product delivery and services, including the total accumulated value delivered by an organisation through the chain. **Culture:** Ability to understand and adapt practices based on the beliefs, values and behaviours that are expected – or accepted as norms – in the organisation. Understand the current and recent history and potential implications for how that culture influences behaviour. **Decision-making processes:** Ability to identify where, when and how different types of decisions are made across the organisation; understand the choices being made in identifying and framing an issue, gathering information, and assessing alternative options and resolutions. Understand the common types of decisions made, decision-making patterns and oversight processes, as well as unique capital allocation and budgeting processes. **Stakeholders:** Be knowledgeable about the people and organisations that are directly or indirectly involved with or affected by the decisions of the organisation and its activities. Understand and be able to explain who the key stakeholders are and their needs and interaction patterns.
Business knowledge Risk management professionals need to have a thorough understanding of general business models and measurements of business performance, as well as the roles and responsibilities of various functional areas and interactions.	**Business model:** Understand the design for the successful operation of different organisations in creating and capturing value; identifying revenue sources, customer base, products, financing, resources, channels, intermediaries, etc. Understand the organisational and governance structures, systems and key business functions of organisations, and their core values and codes of conduct. **Performance management:** Understand how organisations access their employees, processes, equipment or other factors to gauge their progress toward predetermined goals and objectives. **Economics:** Understand micro- and macro-economics, demand and supply, equilibriums, income, employment and

COMPETENCY AREA	TASKS/ROLE
	fiscal policies, money and banking and resource allocation. **Functional areas:** Understand the underlying concepts and functions of the following functional areas of the organisation: ▪ Accounting ▪ Communication/Public relations ▪ Finance ▪ Human Resources ▪ Information and Infrastructure Technology ▪ Internal audit ▪ Legal/Contract management ▪ Marketing and sales ▪ Research and development ▪ Procurement
Risk management knowledge Successful risk management professionals need to be knowledgeable about the standards, guidelines and concepts that reflect contemporary risk management thinking and practices. This includes knowledge related to how risk management can be incorporated into diverse environments, process approaches, solutions and more extensive knowledge in respective sub-speciality areas.	**Standards and frameworks:** Understand risk management models/standards and be able to adapt these to meet the culture, needs and perceptions of the organisation. **Concepts:** Understand the basic intent and outcomes of effective risk management in organisations and the link to organisational value. Understand how risk management can create and protect value. Understand the techniques and processes for optimising risk-taking decisions in an organisation. **Adaptation approaches**: Know how to design and implement an integrated, customised risk management approach for the organisation, taking into account threats and opportunities, as well as limitations and challenges. **Process:** Understand how to identify, compile and analyse the effects of uncertainties that could impact the organisation's objectives; customise and scale to meet the needs of the organisation; applying pertinent risk assessment and analysis techniques and evaluation for the issue(s) under consideration; methods of monitoring, review and reporting. **Solutions:** Be conversant in alternatives for accepting, avoiding, transferring or sharing, modifying and exploiting risk; understand the potential consequences in applying various tactics; identify and evaluate different solutions using a decision process; learn techniques for monitoring results of actions based on the decision(s). Understand and apply various risk-retention methods, risk-sharing and risk-transfer instruments, such as insurance, alternative risk financing, hybrid plans and contractual transfers. **Knowledge and understanding of the following sub-specialities:** ▪ Actuarial sciences

COMPETENCY AREA	TASKS/ROLE
	▪ Business continuity and crisis management ▪ Captive operations ▪ Claims management ▪ Compliance ▪ Environmental management ▪ Financial risk management ▪ Information security management ▪ Insurance ▪ Internal audit ▪ Privacy management ▪ Project management ▪ Quality management ▪ Safety ▪ Security ▪ Supply chain management
Technical skills This area is the operational layer, where the specialised skills of risk professionals come into play. These skills include the ability to develop a horizontal, portfolio approach to managing risk. The application of specialised skills by risk management professionals provides guidance for increased clarity in decision-making.	**Assessment methods and techniques:** Link risk assessments with critical business drivers; perform risk identification, measurement and analysis applying statistical concepts; create valid risk forecasts; perform risk mapping and risk profiling; determine the cost of risk. **Research:** Capacity to systematically investigate and study materials and sources to establish facts and reach new conclusions. **Analytics:** The ability to apply computing methods to data to research potential trends, to analyse the effects of decisions or events and to evaluate performance; to improve the business by gaining knowledge which can be used to make improvements or changes. **Financial analysis:** The ability to determine the impact of enterprise risk on financial performance, accounting practices, reserves and financial reporting disclosures; analyse the relationship and impact of financial risk on other categories of risk in the organisation. **Risk modification:** The ability to apply tactics to accept, prevent, reduce, enable, and/or exploit risk; tactics may include actions such as financial controls, emergency response and continuity plans. **Statistics:** Understand how to use techniques such as data collection, description, modelling, probability, hypothesis testing, regression, time-series analysis, decision-analysis, trend analysis and forecasting to inform decisions. **Data interpretation:** The ability to interpret/translate simple and complex data and modelling results for business insight; explain underlying assumptions, influences and potential consequences. **Behaviour modification:** The ability to use the principles for

COMPETENCY AREA	TASKS/ROLE
	changing undesirable behaviours with more desirable ones through positive or negative reinforcement or both. **Risk Management Information Systems:** Ability to implement and operate risk data collection, analysis and reporting management systems.
Management skills This area covers selected management skills required for successful risk management-related problem-solving and decision-making, planning, organising and relationship development.	**Strategic perspective:** Demonstrate forward-thinking about future issues; know how risks relate to the organisation's business strategy. **Planning:** Determine appropriate goals; results-oriented; see the big picture; relate goals to the organisation's mission and strategy; understand capital allocation and budgeting processes. **Organising:** Create risk management capabilities; staffing; build risk competencies in the organisation's culture; leverage diversity. **Decision-making:** Recognise and analyse problems and make difficult choices under uncertain conditions in dynamic global environments; ability to compare relevant data; show good judgement. **Relationship development:** Able to build business relationships, strategic alliances, and partnerships, as well as being able to secure mutual benefit from such arrangements; build relationships with other stakeholders.

Source: RIMS (2017)

In line with the endeavours of RIMS, the Pan-Asia Risk and Insurance Management Association (PARIMA) developed the PARIMA Risk Competency Framework to help empower and develop risk practitioners at various stages of their careers. PARIMA started the competency project in 2018 to develop a comprehensive, Asia-Pacific-specific, industry-consistent competency model.

PARIMA (2018) states that the risk competency framework seeks to clearly articulate the exemplary behaviours and skills that are essential for risk professionals to succeed and contribute to their organisation in a meaningful way. It further aims to provide a common language that defines proficiency at each stage of the professional's career and to further their professional development. The PARIMA Competency Framework (2018) comprises five competency categories, as depicted in Figure 3.3 and listed below:

1. Risk technical skills include functional knowledge of risk principles, practices, tactics, tools and processes across various specialisation areas. More specifically, risk technical skills include:
    - The capability to design and implement an integrated risk management framework in the organisation and manage the end-to-end process of risk identification, risk assessment and risk treatment.
    - An understanding of risk financing and insurance.
    - The ability to design, implement and maintain a management system to build capacity for unforeseen events, to protect the organisation and to manage and recover from disruptive events.
    - The ability to integrate core values, integrity and accountability throughout the organisation and business practices.
    - The ability to identify and manage potential internal and external threats which can impact the safety of staff, customers and property.
    - The ability to identify sustainable megatrends, such as climate change and social migration, and be able to integrate these into the risk management process to improve decision-making.
2. Business knowledge is the understanding of the organisation's activities, components and operations that is needed to derive actionable and practical risk insights to achieve strategic goals. Business knowledge includes aspects such as financial literacy, project management, business administration, audit and internal control, legal and compliance aspects pertaining to the organisation and digital fluency.
3. Relationship management is the ability to manage internal and external interactions to provide risk-related services and support the needs of the organisation.
4. Judgement and decision-making refer to the ability to access and interpret information and risks from sound and evidence-based judgements, make choices and take accountability for results.
5. Learning agility is about keeping abreast of new developments, promoting knowledge management and risk culture while being innovative and open to new ideas and approaches.

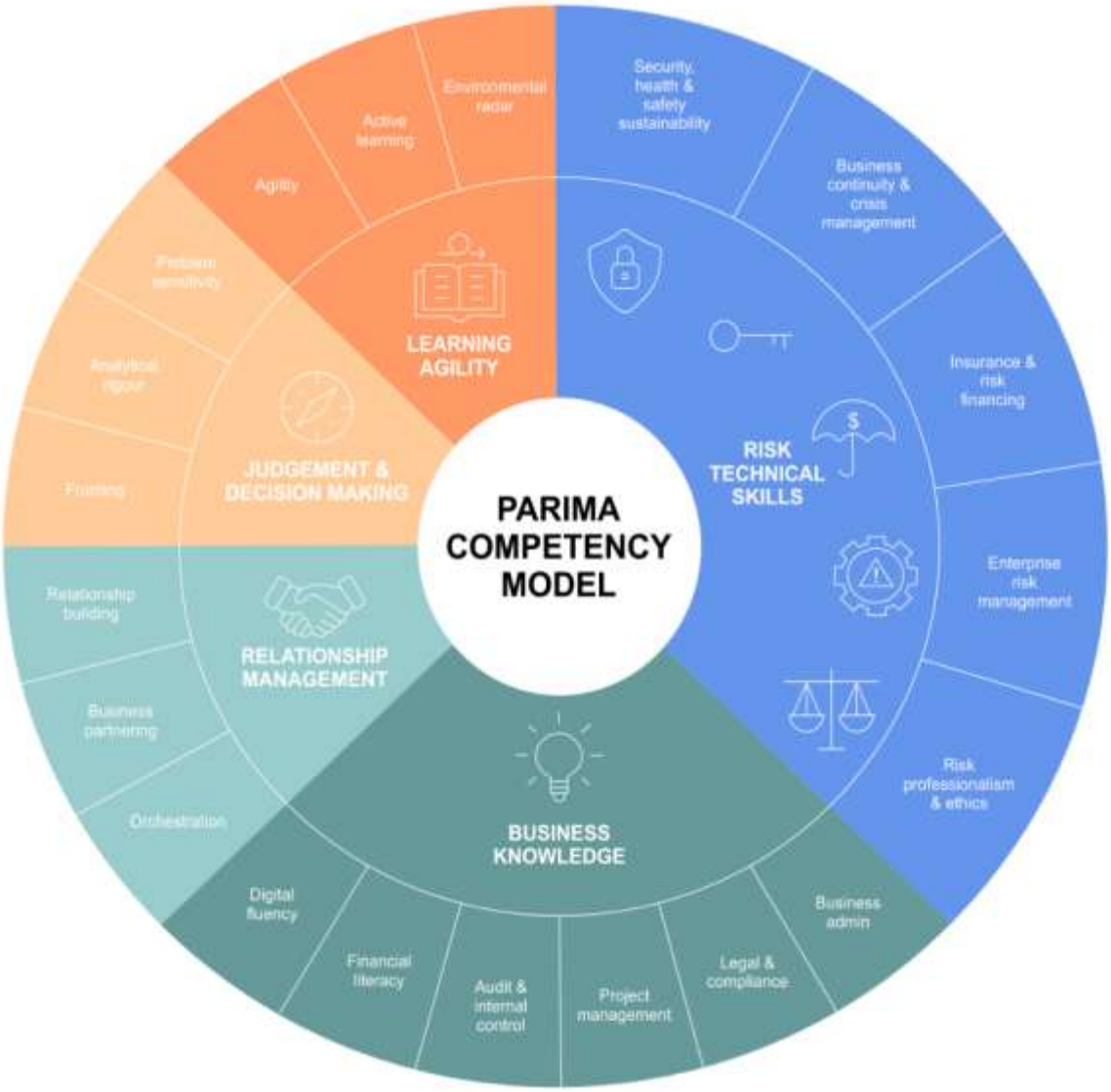

Figure 3.3: PARIMA Competency Framework

Source: PARIMA (2018)

PARIMA (2018) also identified five critical skills for risk managers, namely:

1. Risk managers must be able to strike a balance between the details, seeing the big picture and working with the business.
2. Soft skills are far more critical than technical skills, with working with people, communicating, influencing and deciding and initiating action identified as the key drivers of success.
3. Market volatility, a faster pace of change and the increasing complexity of emerging risks imply that strategic thinking, critical evaluation and agility will become more critical in the future.

4. Gaining buy-in and stakeholder commitment are reported to be one of the greatest challenges facing risk managers; they must be effective at communicating and influencing.
5. Big data and analysis are top in the mind for many; however, the overriding consensus is that strategic thinking is the critical competence to ensure proper leverage of data analysis.

The International Institute of Risk And Safety Management (IIRSM) also developed a Risk Management and Leadership Competence Framework (n.d.). They emphasised that the required level of competence will depend on the individual's role, seniority, experience and area of expertise. As a guide, the competencies and behaviours are set at three levels of attainment linked to the career progression and the IIRMS membership structure: Associate (Operational), Member (Managerial) and Fellow (Strategic):

1. Operational – knowledge and understanding, with some application
2. Managerial – clear application of knowledge
3. Strategic – reasoned advice and depth of complexity.

IIRSM (n.d.) distinguishes between technical competencies and leadership behaviours in their model, as summarised in Table 3.7.

Table 3.7: IIRSM Risk Management and Leadership competence framework

Technical competencies: Area of competence	Leadership behaviours: Area of behaviour
▪ **Organisational context:** understands the evolving relationship between the organisation and external forces that shape the way in which it responds to risk. ▪ **The role of risk management:** applies risk management across the organisation and educates stakeholders to identify and act on risk. ▪ **Strategy, objectives and procedures:** develops and implements an approach and attitude for the organisation in which it manages risk. ▪ **Project/change management:** enables organisations to create significant	▪ **Influencing:** encourages and persuades others to contribute effectively. ▪ **Emotional intelligence:** demonstrate an open attitude to all, recognising and valuing different stakeholder perspectives and inputs. ▪ **Collaborative:** builds consensus, trust and respect by sharing information, ideas and resources in a manner that increases contribution from others. ▪ **Communicative:** communicates clearly and concisely, recognising audience capabilities and listening to stakeholders in an open and courteous way. ▪ **Innovative:** identifies uncertainties as

opportunities and recognises associated risks. ▪ **Stakeholder engagement:** ensures risks are efficiently addressed through understanding stakeholders and their expectations. ▪ **Data management:** ensures data are appropriately managed, and decisions are founded on reliable information. ▪ **Risk and organisational reporting:** define performance measures and provides the right information in required formats in a timely manner to the appropriate decision-makers.	potential opportunities and challenges the status quo. Takes calculated risks whilst respecting objectives and values. ▪ **Ethical:** demonstrates trust, fairness and openness and remains true to values, irrespective of pressures. ▪ **Determined:** pursues objectives through to the end, demonstrating resilience, courage, adaptability and energy to achieve goals. ▪ **Systematic:** works logically, considers options and sets clear, measurable targets which balance competing priorities.

Source: IIRMS (n.d.)

The Association of Insurance and Risk Managers in Industry and Commerce (AIRMIC) (2020) maintain that they have developed the AIRMIC Competency Framework to describe and define the competencies required by individuals in any risk management role. The framework also provides AIRMIC with a consistent and measurable guide to their members' learning and development needs and outcomes at different stages of their careers.

The framework comprises four components, namely, core principles, risk management attainment, business awareness, and mindset and behaviours. For each of the components, there is a description of its meaning, how it is applied in practice and the members' support provided by AIRMIC. They explain that core competencies apply to all risk management professionals, regardless of their role, sector or stage of their professional journey.

- **Core competencies** include acting ethically, thinking strategically, performing commercially and building agility.
- **Risk management attainment and maintenance** refers to the professional knowledge and skills a risk professional should have and how to use them. Competencies in this category are divided into three main groups: risk in a changing world, managing risk and opportunity, and treating risk.
- **Business awareness** is defined as the knowledge and skills required to be a competent risk professional. Competencies under this category are divided into

business responsibilities, business insight, management, project management governance, compliance, finance, information and technology and people.

- **Behaviours and mindset** cover what is needed to interact successfully with others and how the risk professional can achieve success. AIRMIC points out that the behaviours we adopt are the result of our mindset, combined with our knowledge and skills. They maintain that mindset plays a critical role in coping with challenges, and those with a positive mindset are more likely to achieve success. They believe that risk professionals should be adaptable, collaborative, courageous, a communicator, creative and innovative, credible, curious, decisive, determined, diverse and inclusive, empathic, entrepreneurial, an influencer, inspired, a motivator, a negotiator, a networker, a problem-solver, resilient and a role model.

ERMA (2010-2021) argues that candidates need to be judged against established standards or benchmarks. These standards are developed by industry and are called competency standards. Competency standards define the competencies for effective performance in the workplace in specific industries and include the essential information needed to assess the candidate.

The ERMA competency model consists of two components, namely, technical competency and behavioural competency. The technical competency section is divided into the Principles of ISO31000, the Risk Management Framework and the Risk Management Process. ERMA developed four levels of proficiency from level 1-4 and presented these in a matrix for each of the technical competencies. Behavioural competency is assessed through questions focused on disclosing examples of a candidate's behaviour in the past. Behavioural competencies include the delivery of stakeholder-focused services, preventing and solving problems, managing resources and performance, managing change, building capacity and leadership.

3.5 SUMMARY

The commonalities from the literature suggest that the role of the risk manager, more specifically the CRO, has risen in prominence, with the profile of the risk manager

shifting from a technical and compliance role to a strategic role. To fulfil the new role, risk managers need a wide variety of competencies.

The competencies required of a risk manager to be effective in the role and add value to the organisation have been studied by academics, professional bodies, and other stakeholders. The commonalities from the literature suggest a combination of technical skills (hard skills) and people or behavioural skills (soft skills). The commonalities from the literature further suggest a combination of knowledge, skills, values, and attributes, such as leadership and communication. Knowledge includes business, organisational and risk management knowledge, while skills, such as management and technical skills, are also highlighted. Marx and De Swardt (2020:104) opine that the main difference in risk management competency literature is that not all authors consider risk management from the perspective of it being a profession and having a code of ethics.

Several competency models, frameworks and standards were consulted for this study. Most of the models are comprehensive and distinguish between the knowledge, skills, values, and attributes needed by risk professionals. The competency models developed by RIMS, PARIMA and AIRMIC highlight the core competencies or critical skills, namely, the skills required by all risk professionals regardless of their roles, sector or stage in their careers.

Marx and De Swardt (2020:104) consider most of the models as being well-grounded and comprehensive, reflecting attributes in addition to knowledge (organisational, business and risk management knowledge), values (such as ethics and integrity) and skills (management and technical skills). They believe that a limitation of most of the models is that they do not provide explicit guidelines for curriculum development at universities. Being international and area-specific, they are also concerned that it may not necessarily be transferable to South Africa, without some degree of customisation.

The present study conducted an Interactive Qualitative Analysis (IQA), using constituents from academia who are teaching risk management at public universities in South Africa and practitioners from the risk management industry. The study aims to provide a set of competencies specific to South Africa that can be used as a

reference in the design of a specialised undergraduate degree in risk management, The IQA research methodology will be explained in the next chapter.

CHAPTER 4:
RESEARCH METHODOLOGY

4.1 INTRODUCTION

The primary objective of this study is to identify the competencies risk practitioners should possess to become effective risk managers.

This chapter focuses on Interactive Qualitative Analysis (IQA) as the appropriate methodology of this study. The design of IQA provides a method for understanding complex systems by identifying the elements of the system through input from constituents that have first-hand experience of the phenomenon in the study. IQA is defined by Northcutt and McCoy (2004:299) as “a qualitative data-gathering and analysis process that depends heavily on group processes to capture a socially constructed view of the constituent’s reality”. The purpose of this study is to gain knowledge from constituents based on their experience as risk management educators and risk management practitioners, respectively. The outcome is based on the lived experience of the constituents (participants).

IQA was considered suitable for this study as it is a research method that involves focus group interview sessions with different groups or constituencies to gain an understanding of an identified problem or phenomenon. This study aimed to capture the views of academics teaching risk management and risk management practitioners in an open-ended way to analyse and interpret their worldviews.

IQA was, furthermore, preferred as the methodology to be used in this study, as it addresses the issue of rigour with its structured approach, clear protocols and insistence on using the voice of the constituents. The constituents were allowed to identify both the elements and relationships among the elements themselves. This study recorded the conversations of the constituents in terms of the identified affinities which were transcribed verbatim to be checked for validity and to ensure that the views of the constituents and not that of the researcher were reflected. This prevented any distortion of facts by the researcher. In this study, any power, biases and prejudices of the researcher were further limited by using a facilitator for each of

the focus group interview sessions, while the researcher acted as assistant facilitator and observer.

In this Chapter, IQA as the research design and process will be placed into perspective, and the phases in the IQA research flow identified and explained.

4.2 INTERACTIVE QUALITATIVE ANALYSIS IN PERSPECTIVE

Peshkin (as cited by Leedy & Ormrod, 2014:142) highlights the four main purposes of qualitative research, namely, describing, interpreting, verifying and evaluating. Certain qualitative research studies aim to reveal the multifaceted nature of a phenomenon (without attempting to determine the cause thereof) through descriptions of the collected data. This is referred to as descriptive research. Studies may also be undertaken to verify the validity of certain assumptions, theories, claims or generalisations in real-world contexts, while other qualitative research is conducted to evaluate the effectiveness of particular practices, policies or innovations. Qualitative studies are also undertaken to gain new insight into a specific phenomenon, to develop new concepts or theoretical perspectives about the phenomenon, or to discover problems that exist within the phenomenon through the interpretation of collected data. These kinds of studies are referred to as interpretive research.

The purpose of this study was to gain knowledge from constituents based on their experiences as academics and risk management practitioners, more specifically, to gain new insights into the phenomenon of risk management education. IQA is therefore considered to be an interpretive study, as it enables the researcher to gain new insight into a phenomenon, to develop new concepts or theoretical perspectives in terms of the phenomenon, and to discover problems that exist about the phenomenon.

Leedy and Ormrod (2014:143) continue that qualitative research designs may take on various forms, such as case studies, ethnography studies, phenomenological studies, grounded theory studies and content analysis. A phenomenological study is described by them as a study that attempts to understand people’s perceptions, perspectives and understandings of a particular situation. The purpose of a grounded theory, on the other hand, is to begin with data and to use the data to

develop a theory. Leedy and Ormrod (2014:148) explain that the term “grounded” refers to the idea that the theory that emerges from the study is derived and rooted in data that have been collected in the field, rather than being taken from research literature.

In line with this, IQA comprised primarily a phenomenological study, making use of focus group interview sessions in an attempt to understand the perceptions, perspectives and understanding of constituents about the phenomenon of risk management education. At the same time, IQA borrows some of the principles of a grounded theory study by using real-time data collected from constituents during the focus group interviews.

Robertson (2015:88) and Northcutt and McCoy (2004:xxi) conclude that IQA is a “contextualised, interpretive approach to qualitative research that is grounded in the systems theory and whose primary purpose is to represent the meaning of a phenomenon in terms of elements and the relationships among them”. In terms of IQA, systems are represented as elements and the relationships among these elements. Elements are referred to as affinities, while the relationship between them is represented by a mind map. Robertson (2015:88) points out that an affinity resembles the quantitative concept of a variable but that it tends to be richer and more meaningful since affinities are constructed from the thoughts and words of those close to the phenomenon.

Northcutt and McCoy (2004:28) explain that a single system refers to the systematic representation of a phenomenon from one person or group’s viewpoint. They maintain that to understand a system, the elements of the system need to be identified and the relationship among the elements described. Relationships, in terms of IQA, are defined by Northcutt and McCoy (2004:41) as “those of perceived cause and effect or influence among the elements”. Northcutt and McCoy (2004:41) emphasise that the manner in which elements and relationships dynamically interact to result in different states of the system needs to be understood. This implies interpretation (what is the nature of the unity represented by the system), making intra-systemic inferences (what are the logical effects of changes of state of some elements on others) and making extra-systemic inferences (analysing the effect of outside influences on the system). Where more than one system is available, the

systems, in addition, can be compared, in terms of elements and relationships, as well as the interpretive implications of the comparison.

Robertson (2015:89) points out that the product of an IQA study is a visual representation of a phenomenon in the form of a mind map, or System Influence Diagram (SID), which is prepared according to rigorous and replicable rules to achieve comprehensiveness (all elements are identified), complexity (represented by the degree of interrelationships among the elements), simplicity (the simpler of two representations, the better), and visual interpretability (reflected in a diagram or picture).

Robertson (2015:89) concludes that IQA makes use of systems theory to construct, interpret and compare mind maps, which are the system's representation of how individuals or groups understand a phenomenon. Systems theory is combined with dialectical logic where perceptions produced by the group are verified by individuals in personal interviews.

Kuhn (1970, cited by Northcutt & McCoy, 2004:8) notes that the components of a paradigm are beliefs and values. Northcutt and McCoy (2004:xxii) explain that IQA extends on Kuhn's concept of a paradigm by the articulation of a general theory of rigour represented as a system comprising of specific sets of relationships among ontological (What is real?), epistemological (How do we know?) and ethical (What is good?) elements.

One of the major underpinnings of IQA is dialectical logic, which has both theoretical and practical implications. The theoretical implications refer to IQA's location in terms of the ideological dimensions of different research paradigms, while the practical implications of this foundation fall within the context of data coding.

In terms of the theoretical implications, IQA is underpinned by the following ideological beliefs and values, as set out by Northcutt and McCoy (2004:16):

- IQA presumes that knowledge and power are largely dependent. In accordance, how knowledge is perceived in terms of importance and relevance is influenced by power. The degree of power a constituency has over the phenomenon being studied is therefore one of the two criteria for constituency selection (Robertson, 2015:91).

- IQA presumes that the observer and observed are interdependent. With this assumption, IQA challenges the common perceptions that data collection is separate and distinct from data analysis, and that only the researcher is qualified to interpret the data.
- IQA views reality in consciousness (the phenomenon), rather than reality itself, as the object of research. The distance from the phenomenon being studied is thus the second criterion for constituency selection. IQA makes use of group processes, such as focus group interview sessions, as the data collection device to gain insight into a socially constructed reality as reported by members of the group. Focus group interview sessions may be followed up by individual interviews to elaborate and contrast individual meanings to that of the group, if necessary.
- IQA relies on both deduction and induction to construct meaning. During the IQA process, constituents are requested to first induce categories of meaning (induction), then to define and refine these (induction and deduction) and then to investigate deductively, the relationships or influences among the identified categories. These three stages of data production or analysis correspond to three classes of coding, namely, emergent, axial and theoretical.
- IQA maintains that de-contextualised descriptions are useful and possible, as long as they are backed up or grounded by highly contextualised descriptions, and as long as the process used to de-contextualised the text is public, accessible and accountable.
- In terms of the degree of abstraction, IQA is Pro Theory, both from the view of inducing theory and testing it. Salkind (2012:3) maintains that a theory helps to organise new information into a coherent body of related ideas that explain events that have occurred and predict events that may happen. The mind map of a group or individual, in effect, represents a set of relationships from which a hypothesis can be deduced, and it can therefore be seen as a theory. Northcutt and McCoy (2004:16), however, emphasise that it is a theory in perception, or a mental model of a group or individual about a specific phenomenon, rather than one imposed by previous findings or by the researcher's theorising.

- In terms of rigour, IQA supports the traditional concepts of validity and reliability. Internal validity is reflected in the extent to which the System Influence Diagram (SID) or mind map is consistent with the individual hypotheses comprising it, whereas external validity is represented by the extent to which the mind maps constructed by independent samples of the same constituency on the same phenomenon are similar. Northcutt and McCoy (2004:17) maintain that the principles of IQA support constructs such as credibility, transferability and dependability, while highlighting the concepts of validity and reliability through public, accessible and accountable procedures.

The practical implications of the dialectical logic underpinning of IQA fall within the context of data coding which will be discussed later in this chapter.

Northcutt and McCoy (2004:xxii) describe IQA as “a detailed, application-orientated, systematic process by which data, analysis and interpretation are integrated into one process”. The next section outlines the IQA research process.

4.3 THE IQA RESEARCH PROCESS

An IQA research process has four distinct phases, namely, research design, focus group interview sessions, individual interviews and reporting (Northcutt & McCoy, 2004:44). During the research design, problems of interest are articulated, constituencies are identified, and the research questions, as implied by the problem statement, are formulated.

Focus group interview sessions are then used to identify the affinities of a system and relationships among the affinities. A set of protocols stemming from the IQA system theory is used to develop a system that represents a mind map of the group’s reality. The defined affinities are used to develop a protocol for individual interviews to further explore the meanings of affinities and their systemic relationships.

A comprehensive system diagram (SID) is developed from the focus group interview sessions and individual interviews to explain the phenomenon. The study is concluded with a final report containing results and interpretations. The phases in the IQA Research Flow are depicted in Table 4.1.

Table 4.1: IQA Research Process

Research design	▪ Articulate problems of interest ▪ Identify constituencies with an interest in the problem ▪ State research questions implied by the problem statement
Focus group interview sessions	▪ Affinity production (inductive and axial coding) ▪ Identify relationships between affinities ▪ Constructing the group interrelationship diagram (IRD) (deduction and theoretical coding) ▪ Constructing the focus group SID or mind map
Individual Interviews	▪ Protocol for interviews ▪ Interview ▪ Individual interview Axial coding ▪ Individual interview theoretical coding ▪ Individual interview SID ▪ Combined interview theoretical coding ▪ Combined interview SID
Report	▪ Describe affinities and their relationships ▪ SID comparisons ▪ Conclusions and implications

Source: Adapted from Northcutt & McCoy (2004:45)

This current study did not make use of individual interviews. Northcutt and McCoy (2004:169) note that although the IQA process is designed to incorporate interviews, limits on resources and the nature of the study may render individual interviews unfeasible. They maintain that useful studies can be conducted without individual interviews but that extra care should be taken when conducting focus group interviews, emphasising detail when it comes to the description of affinities, Affinity Relationship Tables (ARTs) and System Influence Diagrams (SIDs).

Two focus group interview sessions were conducted for this study, using two different constituencies, selected according to their distance from and power over the phenomenon. Different constituencies have different perspectives and respond differently to the phenomenon. A comparison between the perceptions of the two groups, their differences and commonalities, was deemed sufficient to help to meet the research objective of identifying risk management competencies that should be considered in the design of a specialised undergraduate degree in risk management.

The various phases of the research flow used in this study will be briefly explained in the next sections, starting with the research design phase.

4.4 IQA RESEARCH DESIGN

According to Northcutt and McCoy (2004:46), IQA research design starts with a vague problem and seeks to identify those who have something to say about the problem (referred to as constituencies). The design thus begins with a problem statement, which at the early stages of the design might be no more than a vague concern, a desire to know more about a phenomenon or a need to correct a situation (Northcutt & McCoy, 2004:53). They further emphasise that the IQA design is not a linear, once-off process, but is circular instead. The IQA design process is graphically represented in Figure 4.1. It involves a systematic internal dialogue by the researcher, moving around the hermeneutical circle until he or she is satisfied with the answers to the questions raised.

Figure 4.1: IQA Research Design: A system with recursion

Source: Northcutt & McCoy (2004:71).

Northcutt and McCoy (2004:72) maintain that the recursive feature of the IQA research design process (resembling a formalised version of critical thinking), allows for the successive refinement of:

Constituencies: The term constituency reflects both a perceptual or phenomenological interest in and power over the phenomenon that is at the centre of the problem statement. Constituencies are identified and selected by reflecting on the following questions: “Who has something to say about the phenomenon?” and “Who can do something about the phenomenon?”

- *Classification of the constituencies*. Classifying constituencies in terms of distance from and power over the phenomenon helps to ensure consistency in terms of the purpose of the study, the field methods and analytical procedures.
- *Issue statements*. Once constituencies have been identified, the question becomes: “What issue should this constituency examine?” (Northcutt & McCoy, 2004:46). Taking into account that different constituencies perceive a phenomenon differently, an issue statement must be formulated for each of the constituencies that will be meaningful to them. Issue statements are always a variation of “Tell me about...” It must, however, be presented in such a manner that it is real to a specific constituency.
- *Research questions*. Once an issue has been defined for each constituency, the research questions must be formulated. Robertson (2015:95) maintains that forming a problem statement is initially largely inductive or intuitive, whereas generating research questions is largely deductive. Northcutt and McCoy (2004:65) point out that in an IQA study there are only three generic research questions, of which the first two are intra-systemic and the third one inter-systematic, that need to be answered, namely:
  - *What are the components of meaning of a phenomenon?* These components are called affinities and are defined by Northcutt and McCoy (2004:81) as “sets of textual references that have an underlying common meaning or theme, synonymous to factors or topics”. Northcutt and McCoy (2004:81) maintain that affinities resemble the quantitative concept of a variable, in the sense that both are reflections of one thing or construct, and both have a range. They note that affinities tend to be richer and more meaningful

because they are constructed of the thoughts and words of those close to the phenomenon of interest. A more significant distinction lies in the ability of affinities, in concert with a systems understanding of relationships, to represent dialectical unities, in contrast to the simple monotonic relationships represented by variables. Affinities are the building blocks of the mind maps produced by the constituency.

- *How do these affinities relate to each other in a system of perceived influence or cause-and-effect?* The relationships among affinities are deduced through theoretical coding to compile the mind map of the constituency. IQA theory encourages the comparison of mind maps between individuals and groups in line with its presumption that all interpretations involve comparisons and its assumption that pure descriptions do not exist and that all descriptions are, in some meaningful sense, interpretations (Northcutt & McCoy, 2004:xxiii).
- *How do the mind maps of constituencies who differ, either in terms of experiential distance from or power over the phenomenon, compare?* It is through the comparison of the mind maps of different constituencies that the researcher gains insight into the meaning of the phenomenon. This follows from the assumption that reality or meaning is socially constructed and that this is influenced by the extent to which the constituency directly experiences the phenomenon (distance), and the extent to which the constituency has power over the phenomenon.

The next section discusses the formulation of the research question as part of the IQA research design phase.

4.4.1 Formulation of research questions

Northcutt and McCoy (2004:46) explain that the formulated research questions must be tested for adequacy against two criteria that have been formulated as two questions, as indicated below. The IQA design is complete when the answer to question 2 is affirmative.

1. What problem does these questions, taken as a whole, address? (In other words, what is the current problem statement?)
2. Is this the problem we should be addressing?

By following the recursive process of the IQA research design process, a four-part generic research question was developed to address the problem statement "*What are the risk management competencies that should be covered by a specialised undergraduate degree in risk management?*

The subsidiary questions are:

1. What competencies (including knowledge, skills, attributes, values and attitudes) are needed by risk practitioners to enable them to meet the risk management challenges in South Africa?
2. To what extent do the perceptions of academics teaching risk management and risk practitioners correspond or differ in terms of the competencies identified?
3. Based on the identified competencies, what are the implications for a proposed specialised undergraduate qualification in risk management?

By following IQA as methodology, this study attempted to answer the above questions as follows:

1. The components of the systems represented by this study are the affinities produced by the two groups of constituents, namely, academics teaching risk management at public universities in South Africa in Group 1, and risk practitioners in Group 2. The identified affinities and the relationships between the affinities will be described in Chapter 5.
2. The affinities identified by the two focus groups and the mind maps or systems created by the two focus groups will be compared as they represent different perceptions of the same phenomenon. The results will be reflected in Chapter 5.
3. The implications of the identified competencies for the design of a specialised undergraduate degree in risk management will be discussed in Chapter 6.

The IQA design is completed once the study that was undertaken is able to address the research problem. The next step in the IQA research design involves the identification and selection of the constituencies, which will be the topic of the next section.

4.4.2 Choosing the constituency

The participants in an IQA study are called constituents. A group of people who have a shared understanding of a phenomenon is referred to as a constituency. Northcutt and McCoy (2004:16) maintain that the IQA data collection/analysis techniques originated from Total Quality Management (TQM) techniques, which were designed to capture knowledge from organisational members to solve problems and improve industrial processes. One of the assumptions of TQM is that people who are closest to the job best understand what is wrong and how to fix it.

Robertson (2015:90) points out that IQA presumes that knowledge and power are dependent in that power influences which knowledge is regarded as relevant or irrelevant. Based on the above assumption and presumption, constituents for an IQA study are selected according to their distance from and power over a phenomenon. Two questions are asked when identifying potential constituents: *"How close is the constituent to the problem, phenomenologically speaking?"* and *"How much power does the constituent have over the phenomenon?"* (Northcutt & McCoy, 2004:46). As previously stated, a constituency reflects both an interest in and power over the phenomenon at the centre of the problem statement (Robertson, 2015:90). Constituencies are selected from a target population, as explained in the next section.

4.4.2.1 Defining the target population

The target population for this study was selected because of its common perspective on the phenomenon: risk management education. Two different constituencies were identified for this study based on their power over and distance from the phenomenon, which implied different perspectives and responses to questions on the same phenomenon. Separating the constituents into two groups:

- prevented the aggregation of two different constituencies, which may result in compromises when affinities were produced and mind maps constructed; and
- allowed for comparisons in constructing meaning.

Group 1 consisted of lecturers and professors teaching risk management at public universities in South Africa. A summary of public universities in South Africa is provided in Table 4.2. Although this group had some distance from the actual

practising of risk management, they had more power over the educational aspect, more specifically, the design of qualifications on higher education level.

Group 2 comprised of risk practitioners in South Africa. This group were close to the phenomenon of risk management and the accompanying need for risk management education. Still, they did not have a great deal of power over the educational aspect, more specifically, the design of risk management qualifications on higher education level.

The nature of each group's occupation influenced how they perceived the phenomenon. In the light of the emphasis placed by IQA on comparisons as fundamental to interpretation, a comparison between the perceptions of the two groups, their differences and similarities, helped to meet the research objective of determining risk management competencies that should be covered in the design of a specialised undergraduate degree in risk management.

Salkind (2012:33) advises that given the constraints of time and research funds, the best strategy is to take a portion (sample) of a larger group of constituents (population) and do the research with that group. The sampling strategy followed for this study is explained in the next section.

4.4.2.2 Sampling strategy

Salkind (2012:95) emphasises that the success of any research project depends on the way you select the people who will participate in your study. Leedy and Ormrod (2014:154) explain that qualitative researchers are intentionally non-random in their selection of data sources. They select those individuals or objects that will yield the most information about the topic being investigated. The sampling methods used in this study were stratified, purposive and convenience sampling.

In terms of purposive sampling, people or other units are chosen for a particular purpose (Leedy & Ormrod, 2014:221). Laura Lara (cited by Leedy & Ormrod, 2014:277) maintains that the goal of purposeful sampling is to understand a specific phenomenon, not to represent a population. Cohen, Manion and Morrison (2007:114) describe purposive sampling as the "handpicking of constituents for inclusion in the sample". Constituents for this study were purposively selected for each of the two focus groups, based on their experience with the phenomenon. The sample was therefore deliberately selective and biased and served to satisfy a

specific need. It did, however, still conform to the protocol of IQA's selection of constituents.

Northcutt and McCoy (2004:85) confirm that the purpose of a focus group interview session is to capture the perception of a phenomenon by a group of people (referred to as constituency) who all have something important in common about the phenomenon. The selection and studying of information-rich cases can provide an in-depth understanding of the phenomenon that gives insight into the questions which are being studied. This is often confused with the purpose of random sampling that is done to obtain a representative sample of a highly variable population. Northcutt and McCoy (2004:85) caution that the two sampling methods are usually at odds and suggest that random sampling may only be considered once a constituency has been defined.

The constituents in this study were all either involved in the curriculum design of and teaching of risk management at universities or were active risk managers in the financial or non-financial industry sectors in South Africa.

Comparisons are facilitated through stratified purposeful sampling where constituents are selected based on key dimensions. In this study, the constituents were selected from two strata, namely, risk management lecturers and professors at public universities and practising risk managers in South Africa. This aimed to capture variations in the perception of the phenomenon as found in the two groups and to facilitate comparisons.

The above sampling strategies conform to the IQA protocol of selecting constituents who have a shared understanding of a phenomenon, either from being close to the phenomenon or having power over the phenomenon.

Convenience sampling, also known as accidental sampling, selects constituents who are readily available and accessible at the time of the study (Leedy & Ormrod, 2014:220). Robertson (2015:92) points out that with convenience sampling, constituents who happen to be available and accessible at the time, can be chosen as long as the sample does not seriously misrepresent the population.

This study made use of two focus groups. De Vos *et al.* (2011), as cited by Robertson (2015:96), note that more than one focus group enhances the quality of

results. Constituents were placed in two homogeneous groups in terms of distance and power over the phenomenon, as indicated earlier in this chapter.

The constituency for Focus group 1 comprised lecturers and professors teaching risk management at public universities in South Africa. There are currently 26 public universities in South Africa. These institutions are classified as traditional universities (offering theoretically-orientated university degrees), universities of technology (offering vocational-orientated diplomas and degrees) and comprehensive universities (offering a combination of both types of qualifications).

Table 4.2 summarises the different public universities according to this classification.

Table 4.2: Public universities in South Africa

Traditional universities	Comprehensive universities	Universities of Technology
▪ University of the Western Cape (UWC) ▪ University of Cape Town (UCT) ▪ **University of Pretoria (UP)** ▪ University of Stellenbosch (US) ▪ University of North West (NWU) ▪ University of Free State (UFS) ▪ **University of the Witwatersrand (WITS)** ▪ University of KwaZulu-Natal (UKZN) ▪ University of Fort Hare ▪ Rhodes University (RU) ▪ University of Limpopo (UL) ▪ **Sefako Makgatho Health Science University (SMU)**	▪ **University of South Africa (UNISA)** ▪ **University of Johannesburg (UJ)** ▪ Nelson Mandela Metropolitan University (NMMU) ▪ Walter Sisulu University (WSU) ▪ University of Zululand (UNIZULU) ▪ University of Venda (UNIVEN)	▪ Central University of Technology (CUT) ▪ **Tshwane University of Technology (TUT)** ▪ Vaal University of Technology (VUT) ▪ University of Mpumalanga (UMP) ▪ Sol Plaatjie University (SPU) ▪ Cape Peninsula University of Technology (CPUT) ▪ Durban University of Technology (DUT) ▪ Mangosuthu University of Technology (MUT)

Source: brandsouthafrica.com/governance/education/universities

Six of the universities are situated in Gauteng (indicated in bold in Table 4.2). In Chapter 1 it was indicated that only a few of the universities in South Africa offer comprehensive risk management qualifications. One of these universities, WITS, is

situated in Gauteng. Three of the other universities in Gauteng (UNISA, UJ and UP) offer some form of education in risk management, being either modules, short courses, certificates, degrees or post-graduate degrees. Other universities that offer risk management qualifications are UCT, US, UFS and NWU. Purposive sampling was done to include only constituents that had some experience in teaching risk management courses.

Considering the geographic spread of universities in South Africa, the focus group interviews took place in Pretoria. Convenience sampling was done to include universities in and around Gauteng. Invitations were sent to lecturers involved in the teaching of risk management at UP, UNISA, UJ, WITS, and NWU. Those who were available and agreed to attend were included as constituents in Focus Group 1.

The sample for this focus group satisfied the need to attract constituents who had something to say about the phenomenon of risk management education. The constituents have power over the phenomenon of risk management education, in the sense that they are responsible for the design, development and presentation of the risk management curricula offered by universities. They are, however, less close to the actual practising of risk management.

Focus Group 1 was conducted on 14 February 2017 and consisted of seven risk management lecturers and professors from universities in Gauteng. The constituents were individuals with a common interest in and practical experience of curricula design and the teaching of risk management at either undergraduate or postgraduate level or both.

A summary of the qualifications, position of the participants in the respective universities, and the level at which they were involved with the teaching of risk management are summarised in Table 4.3.

Table 4.3: Profile of the constituents for Focus Group 1

Participant	Highest qualification	Position	Level of teaching risk management
1	PhD	Professor	Undergraduate and post-graduate
2	PhD	Professor	Undergraduate and post-graduate
3	PhD	Professor	Undergraduate and post-graduate
4	M Com	Senior lecturer	Undergraduate and post-graduate
5	M Com	Senior lecturer	Undergraduate and post-graduate
6	M Com	Senior lecturer	Undergraduate
7	B Com (Hons)	Lecturer	Undergraduate

The constituency for Focus Group 2 comprised risk practitioners with relevant and sufficient experience in risk management from both the public and private sector and financial or non-financial organisations in South Africa. Considering the geographic spread of risk management practitioners in South Africa, the focus group interviews took place in Pretoria.

Purposive and convenient sampling methods were used to select constituents for this focus group. Invitations were forwarded to pre-selected risk management practitioners in Gauteng, based on their work-related experience and an interest in risk management education. Those who were available and agreed to attend were included as constituents in Focus Group 2. The sample for this focus group satisfied the need to attract constituents who had something to say about the phenomenon of risk management education.

The constituents are considered close to the actual practising of risk management, and therefore, have first-hand experience of the competencies and educational needs of the risk profession. They, however, have no power over the actual design of risk management qualifications at universities. The interview session for Focus Group 2 was conducted on 8 June 2018 and comprised of seven risk management practitioners. Although eight individuals initially indicated that they would be attending the Focus Group 2 interview session, one of the constituents had to cancel on short notice due to unforeseen circumstances. This meant that both focus groups comprised of seven constituents at the end.

The Focus Group 2 constituents were individuals with a common interest in and practical experience of the field of risk management, many with a common interest or involvement in risk management education in the industry. The profiles of the constituents are reflected in Table 4.4.

Table 4.4: Profile of the constituents for Focus Group 2

Participant	Number of years experience in risk management	Positions held	Involvement or interest in risk management education in the industry
1	11 2	Executive manager: Enterprise risk Chief risk advisor	
2	24 13	Operational risk manager Professor in Risk Management	Yes
3	20 7	Governance, Risk and Compliance Chief executive officer	
4	14	Divisional head: Operational risk and IT risk	
5	16	Senior manager: Risk Management Support	
6	15	Senior lecturer in Enterprise Risk Management	Yes
7	13	Senior manager: Corporate Compliance	

Northcutt and McCoy (2004:87) suggest that a focus group representation should include 12 to 20 members. Du Preez and Stiglingh (2018:147), however, maintain that a focus group should consist of between eight and 12 participants.

Northcutt and McCoy (2004:87) believe that the use of smaller groups might result in skewed data when it comes to the theoretical coding phase. In addition, they suggest that constituents should ideally:

- be information-rich, knowledgeable and experienced with the issue in question;
- have the ability to reflect on the question and express their thoughts in words;
- have the time and willingness to partake in the study;

- be homogeneous in terms of distance from and power over the phenomenon; and
- be able to respect and practise group dynamics.

For this study, both focus groups consisted of seven constituents. All of the constituents met the requirements listed above and provided relevant and valuable input in the respective focus group sessions.

Once the constituents had been selected, an issue statement that would reflect some light on the identified problem was identified. The identification of the issue statements will be outlined in the next section.

4.4.3 Identifying issue statements

Northcutt and McCoy (2004:61) explain that although the issue statement is related to the purpose of the research, it is not the same thing. An issue statement is a statement designed to guide or steer a group of constituents to discuss the *one single issue* that will shed light on the identified problem. After determining the different groups of constituencies, a question needs to be set that summarises what the researcher wants to know from each group.

Northcutt and McCoy (2004:72) believe that different constituencies have different perspectives on the same phenomenon and that the issue statement must, therefore, be meaningful to each constituency. They note that the issue statement is always a variation of "Tell me about …" and must be presented in terms that are real to the constituency. The issue statement set for both groups of constituents for this study reflected on the research question: "*What are the risk management competencies that should be covered by a specialised undergraduate degree in risk management?*

The issue statement *"Tell me which competencies a risk manager should have"* was used for both focus groups. The responses received were deemed sufficient to determine the competencies that should be considered in designing a specialised undergraduate degree in risk management. The research problem was thus addressed, indicating that the research design that was followed was sufficient.

The second phase in the IQA research process involves the collection and analysis of data through focus group interview sessions or workshops. This phase is discussed in the next section.

4.5 FOCUS GROUPS

Robertson (2015:96) points out that the second phase in the IQA research process begins with a focus group interview session or workshop. Morse and Niehaus (2009:90) state that focus group interview sessions is an efficient way of eliciting opinions or rapidly developing an initial understanding of an area. They explain that a focus group entails a planned discussion among a group of people, who have been selected according to some criteria and is led by a facilitator.

Northcutt and McCoy (2004:47) maintain that individuals comprising the IQA focus groups may have varied opinions and experiences with the system which is being studied, but more critically, they share a common perspective. They point out that the focus groups used in IQA, comprise of a group of people who share some common experience, work or live in some common structure, or who have some similar background and who have something to say about the phenomenon under study. This is in line with the major TQM assumption that people who are closest to the job best understand what is wrong and how to fix it (Northcutt & McCoy, 2004:817).

In this study, the two different focus groups shared a common experience of the phenomenon, risk management education, but from two different perspectives. Focus Group 1 comprised of lecturers and professors involved with curriculum design and the lecturing of risk management modules and programmes at universities, but who were not actively involved in practising risk management. Focus Group 2 comprised of individuals who were all actively involved with the practising of risk management, and therefore, had a lot to say about the competencies required by and the educational needs of risk managers, but who could do very little in terms of the design of qualifications at universities.

Northcutt and McCoy (2004:81) maintain that the IQA data collection techniques assist members of a group close to a phenomenon of interest to describe and label their experiences. While articulating the perceived relationships among these

experiences, they are enabled to produce a theory in perception or a conceptual map (mind map) which is a systems presentation of how an individual or group understands a particular phenomenon. Northcutt and McCoy conclude that this system consists of categories of meaning called affinities and the perceived casual relationships among the affinities. In an IQA study, the focus group process is used to identify the elements of a systematic portrait of a particular group reality.

Northcutt and McCoy (2004:16) maintain that both deduction and induction are necessary in IQA to investigate meaning. IQA data production and/ or analysis involves three stages. In the first stage, constituents are requested to induce categories of meaning (induction), in the second stage to define and refine these (induction and deduction), and in the final stage, to investigate deductively the relationships or influences among affinities.

The three stages are collectively referred to as affinity analysis and correspond to the three formal classes of analysis of coding, namely, emergent, axial and theoretical. Coding is described by Northcutt and McCoy (2004:95) as the “collective name given to the way in which text is represented by abstractions during qualitative studies”. Inductive/emergent/open coding seeks to identify affinities, where axial coding refines, reorganises and describes the range of meaning of each affinity in the context of the others (Northcutt & McCoy, 2004:98). Theoretical coding entails determining the perceived cause-and-effect relationships or influences among affinities in the system (Robertson, 2015:100).

The next section discusses the focus group process.

4.5.1 Focus group process

4.5.1.1 Warm-up exercise and issue statement

Northcutt and McCoy (2004:88) maintain that at the start of the focus group interview session, the researcher should introduce the group to the nature of the research and the research problem. Constituents need to be put at ease by explaining the focus group process that will be followed, making them aware that they are free to express their thoughts without penalty, that their identity will be protected, and that no reprisals will occur due to their participation. The recording of the sessions and the manner in which the recordings will be used in preparing the transcript, the purpose of the transcripts and the protection of identity should be explained to constituents.

Both focus group interview sessions in this study commenced with a brief explanation of the nature of the study and the research problem. The researcher emphasised the changing nature of risk and the challenges this poses to organisations in general and risk management, specifically. In addition, the researcher highlighted the need for a holistic approach towards the management of risk across an organisation, and the elevated role of the risk manager as a facilitator of the specific approach towards risk management. It was emphasised that risk managers need to prepare themselves to deal with the changes and challenges of managing risk through quality and relevant education. This again challenged higher education providers to provide qualifications that are contextualised and relevant, while still conforming to the guidelines set for curriculum development in the Higher Education Qualification Framework (HEQF).

Constituents were made aware that the study aims to develop a foundation for the design of a specialised undergraduate degree in risk management that will serve to educate present and future risk managers to deal with the changes and challenges of the risk environment. They were informed that the primary objective of the study was to develop a list of competencies that could assist the curriculum designer in the design of a curriculum for a specialised undergraduate degree in risk management.

After the initial background and purpose of the study were explained by the researcher, the facilitator took over explaining the process to be followed during the focus group interview session. The facilitator conducted the focus group interview process. The researcher acted as an assistant facilitator by helping with the logistics of the process and the recording of sessions.

Northcutt and McCoy (2004:88) suggest that a warm-up exercise should be used to clear the minds of the constituents and to prime the constituents' thoughts about the issue statement. For this study, the Guided Imagery method was used as a warm-up exercise. Northcutt and McCoy (2004:88) note that this method is valuable in evoking the affective dimensions of the phenomenon, and is especially appropriate when the issue statement can be portrayed as a scenario or in episodic form. They maintain that the purpose of the Guided Imagery warm-up exercise is to help constituents clear their minds and focus on the phenomenon. The same Guided Imagery exercise, represented in Table 4.5, was used for both focus groups. The warm-up exercise was performed by the facilitator.

Northcutt and McCoy (2004:88) caution that the Guided Imagery exercise should not be an extensive interview protocol, nor should it be an opportunity for the facilitator to engage in a long lecture on the subject. The issue statement for this study, *"Tell me what competencies the future risk manager ideally should have",* captured the essence of the purpose of the study, being the development of a list of competencies that could assist the curriculum designer in the design of a curriculum for a specialised undergraduate degree in risk management.

Table 4.5: Guided Imagery warm-up exercise followed for this study

- Constituents were requested to get as comfortable as possible and to close their eyes.
- "Putting aside your thoughts of the day, take a deep breath."
- "Now imagine you are the Chief Risk Officer of a large organisation that wishes to implement an Enterprise Risk Management (ERM) approach towards risk management. You need to appoint a risk manager to facilitate and manage the ERM process. What would you be looking for in the ideal candidate?"
- "Think about specific competencies, being knowledge, skills, attributes and attitudes the ideal person should have."
- "Think what knowledge he or she will need."
- "Think what skills he or she should have."
- "Think what attributes the ideal person should have."
- "Think what attitudes the ideal person should have."
- "Now open your eyes."
- Now the constituents were asked: "Tell me what competencies the future risk manager ideally should have."

Robertson (2015:100) notes that IQA data collection begins when the focus group interview sessions take place. She maintains that there are two distinct phases of data collection and analysis: the axial coding phase and the theoretical coding phase. The different phases of IQA data collection and analysis are discussed in the next section.

4.5.1.2 Focus group data collection and analysis

Emergent or inductive coding (Brainstorming)

Following the warm-up exercise, the facilitator invited the constituents to participate in a group brainstorming session. IQA makes use of group processes as a data collection and analysis device. By using group processes, Northcutt and McCoy (2004:16) presume that useful insights can be gained into a socially constructed reality, as reported by members of a group.

The warm-up exercise was followed up by a silent group brainstorming exercise. Silence and privacy protection reduce undue influences by peers and facilitators in the process and encourages authenticity and individuality of thought and reflections by individuals (Northcutt & McCoy, 2004:91). Constituents were given index cards and requested to silently capturing their thoughts, feelings, ideas, answers or reflections regarding the issue statement in single words or short phrases, on these cards. Constituents were encouraged to jot down as many thoughts as possible, using one card per thought. The facilitator emphasised that constituents should jot down any thoughts and refrain from being too analytical, as the purpose of the exercise was to create as many thoughts as possible about the issue statement, and not to criticise individual thinking.

Northcutt and McCoy (2004:93) highlight the importance of the silent brainstorming session ("brain dump") by referring to the following advantages:

- It minimises group pressure, allowing members to respond authentically.
- It provides introverts with private time to think and generate ideas in the group process.
- It generates a large volume of data, compared to verbal brainstorming that often results in a single train of thought or conversation by a group.

Northcutt and McCoy (2004), however, emphasise that a skilled facilitator is required to serve as a process guide, focusing the group on creating and organising ideas created during the brainstorming idea. For this study, facilitators familiar with the IQA process were used to facilitate the IQA process. Both facilitators were briefed by the researcher on the purpose and nature of the phenomenon in separate sessions, prior to the focus group interview session dates.

The silent brainstorming process was followed by a group clarification process. Constituents were instructed to tape their index cards, in a straight line in no particular order, on the wall where the other constituents could view them. The group was then requested to clarify their understanding of each card. During this process, the facilitator guided the constituents in clarifying the meaning of each card to eliminate any ambiguity and vagueness associated with the words or phrases on the individual cards. The researcher captured the different meanings during this process. The researcher then read each response out loud for the entire group to consider. In

this manner, the group arrived at a socially constructed, shared meaning of each card. After clarifying the meanings of the initial index cards, the facilitator invited constituents to add more reflections and thoughts to the original body of index cards.

Once the meaning and understanding of each card was clarified, the facilitator requested the individual constituents to study the cards on the wall and to determine any possible themes or commonalities. Constituents were then instructed to silently cluster the cards into similar groups of meanings/themes. Constituents were allowed the freedom to sort and move cards around into different clusters until everybody was satisfied with the different groups or categories. The facilitator then assisted the constituents in identifying an appropriate label for each cluster or group and to determine any possible sub-categories in each group.

This process is referred to as open, emergent or inductive coding, describing the process of reducing the data to a small set of themes (affinities) that appear to describe the phenomenon under investigation (Leedy & Ormrod, 2014:149). In terms of the IQA process, the term inductive coding is preferred, as this term refers most directly to the fundamental logical operation (inductive logic) involved in the early stages of analysis (Northcutt & McCoy, 2004:97).

Axial coding

Once the clarification and clustering of data were done, the facilitator requested the group to name each of the groups of cards (affinities) through a consensus process, to rearrange cards that were miscategorised into an appropriate group and to create sub-affinities, where applicable. This stage in the IQA process is referred to as axial coding.

Northcutt and McCoy (2004:98) explain that axial coding seeks to name, reorganise, clarify and refine the affinities produced during the inductive coding stage, and it cycles back and forth between inductive and deductive logic. Leedy and Ormrod (2014:149) maintain that this stage involves a back and forth movement between data collection, open (inductive) coding and axial coding in an attempt to refine the different categories (affinities) and their interconnections, and even combining or subdividing some of the categories as additional data are collected. The affinities were listed in alphabetical order for the construction of individual Affinity Relationship Tables (ARTs) and Interrelationship Diagrams (IRDs) in the theoretical coding stage.

Affinity descriptions

Following the inductive and axial coding stages, the affinities were defined using the data gathered from the index cards and transcripts of the group discussion to capture its meaning. The researcher wrote a paragraph, describing the general content of each affinity and sub-affinity.

Northcutt and McCoy (2004:100) emphasise that these paragraphs should be descriptive and be “grounded” in the text through reference to specific quotes or examples. They maintain that the affinity descriptions should provide in-depth coverage of the data included, and should contain the following four basic elements: detail, contrast (what the affinity is not), comparison (how is it different from other related affinities) and richness (elaboration and examples).

During the above two phases, the first question with regard to the system representation of the phenomenon that was dealt with, was: “What are the elements of the system?” Following a nominal group process, the elements of the system (called affinities) which represent the reality of the group concerning the phenomenon, were articulated and refined through a cyclical application of induction and deduction and operationalised via the IQA inductive and axial coding protocols. The second research question involved “How do these elements relate to each other?” Northcutt and McCoy (2004:103) maintain that the articulation of relationships is a deductive process, operationalised in the IQA theoretical coding group protocol. Theoretical coding will be discussed in the next section.

Theoretical coding

Northcutt and McCoy (2004:xiii) propose theoretical coding, or the “performing step”, as the fourth step or second phase of the IQA focus group process. Robertson (2015:100) describes theoretical coding as determining the perceived cause-and-effect relationships or influences among all the affinities in the system. Robertson explains that in the focus group setting, this is accomplished by “facilitating a process of building hypothesis grounded in the data, linking each possible pair of affinities”. The influences are then summarised in the group Interrelationship Diagram (IRD). The IRD is a table that represents all the relationships among the affinities and contains all the information required to produce the group mind map. Robertson

(2015:100) maintains that the IRD represents the group's reality since the group determines the directionality of the influence.

The goal is to identify the underlying structure of the group mind map, which is summarised in the System Influence Diagram (SID) of the group. According to Northcutt and McCoy (2004:149), the purpose of IQA is to draw a picture of the system (SID) that represents the perceptual terrain or the mind map of a group concerning the phenomenon represented by the issue statement. They maintain that the SID is a visual presentation of the theory in perception that is grounded in the specific experiences and logic of the constituents.

Northcutt and McCoy (2004:149) point out that three issues must be resolved in the design of an IQA study with respect to theoretical coding. The issues are posed in the following three questions:

- What level of detail is desired in constructing each perceived relationship?
- How will the group be organised for the analysis of relationships?
- How will the group composite be constructed?

Northcutt and McCoy (2004:150) point out that the first two questions are concerned with how the theoretical codes are created, while the third question concerns how the codes are summarised, as a prerequisite for creating the group IRD as well as being a prerequisite for rationalising the system into its final presentation, the SID.

The following sections will outline how this study answered these questions.

- ***What level of detail is desired in constructing each perceived relationship?***

  The focus group constituents for this study were requested to look at the affinities and to identify the nature of the relationship between pairs of affinities. Northcutt and McCoy (2004:149) note that the preferred form of analysing the relationship among affinities is the "If..., then..." or hypothetical construction. Hypotheses are recorded on a protocol referred to as the Affinity Relationship Table (ART).

  The level of detail refers to the extent to which the reasoning of constituents is recorded, either by including or excluding examples that support their perceived relationships among the affinities. A focus group may either produce a simple or detailed ART.

A simple ART documents the nature of relationships but provides no detail concerning the reasoning followed by the constituent. A detailed ART contains the nature of the relationships and detail or examples supporting the direction of relationships.

This study produced a detailed ART, to accommodate the fact that the study was using focus group interview sessions only. Constituents were requested to determine the nature of the relationship between all possible pairs of affinities by following the rules of hypothesising which state that there are only three possible relationships between any two affinities: 1) either A influences B (A→B), 2) B influences A (A←B), or 3) there is no direct relationship between A and B (A<>B).

In addition, constituents were requested to write a statement reflecting their experiences and beliefs that supported the cause-and-effect relationship recorded for the affinity pair.

- ***How will the group be organised for analyses of relationships?***

  ARTs can be compiled by each member of the focus group (independent coding), by subgroups involving pairs of constituents (dyad coding) or groups of three (triad coding). Alternatively, the focus group as a whole can be requested to consider each affinity pair in a plenary session, resulting in a single ART for the focus group based on informal consensus. In some cases, an Ex Post Facto researcher analysis can be conducted, where the researcher conducts theoretical coding after the focus group has produced and defined affinities. The focus group members are thus not involved in the coding phase.

  For this study, each constituent was requested to compile a detailed ART to create a greater volume and range of data. These were handed to the facilitator. Due to time constraints, the focus group was dismissed after the completion of the individual ARTs.

- ***How will the group composite (the system that represents the entire focus group or SID) be constructed?***

  Northcutt and McCoy (2004:156) believe that the selection of a protocol for representing the consensus or the "preponderance" of the group's analysis of relationships is independent of the level of detail or focus group organisation. They propose two variations in developing a group composite, namely, the Pareto Protocol, being a statistical method, and the Democratic Protocol, being a group process. Northcutt and McCoy (2004) maintain that the Pareto Protocol is a reasonably rigorous and powerful technique for achieving and documenting the degree of consensus in a focus group. According to them, IQA uses the Pareto rule of thumb operationally, to achieve consensus, and analytically, to create a statistical group composite. Although using this method requires more of the researcher's time, the focus group can be dismissed upon completion of the ARTs.

  A Pareto Chart is developed by recording the frequency of each relationship pair in affinity order, as presented by the individual ARTs, and arranging the different relationships in descending order of frequency. The cumulated frequencies and percentages in terms of both the total number of relationships, as well as the total number of votes (representing the proxy for the total variation in the system) are then calculated. This information is used to determine the relationships to be presented in the group composite SID. Northcutt and McCoy (2004:160) maintain that the composite should account for maximum variation in the system while minimising the number of relationships in the interest of parsimony.

  An alternative to the Pareto Protocol is to use a simple majority vote by the constituents in the focus group interview session. This vote aims to determine the direction of each relationship, and whether those options with a plurality of votes are included in the ART, and whether those with very few or no votes are excluded from the ART.

  As this study involved focus group interviews only, the Pareto Composite SID was used, specifically due to the higher level of detail provided by the technique. The Pareto Protocol is discussed in the next chapter.

Creating a Group Composite (IRD)

Northcutt and McCoy (2004:170) explain that creating an Interrelationship Diagram (IRD) is the first step in a general process called “rationalising of the system”. According to them, the output of the focus group hypothesising, as represented by the focus group’s ART, is summarised in an IRD, which is a matrix containing all the perceived relationships in a system. Robertson (2015:100) notes that the IRD represents the group’s reality since the group determined the directionality of the influence. During the focus group interviews, each constituent created his or her own detailed ART and left after handing their ARTs to the facilitator.

The facilitator used this data to compile a focus group ART. Thereafter, the group IRD was created from the information gained from the group ART. An IRD is generally created by placing arrows into a table, indicating whether an affinity in a pair is perceived to be a cause or an effect, or if there is no relationship between the affinities in the pair. Arrows only point up (↑) or left (←) and are recorded twice in a double-entry bookkeeping manner. Arrows pointing ↑ (up or out) and ← (left or in) are added per row and recorded in the *Out* and *In* columns of the IRD table. The IRDs of the two focus groups will be shown in Tables 5.7, 5.8, 5.9 and 5.10 in the next chapter.

The number of *In* arrows are deducted from the *Outs* to determine the value of Delta (Δ). The table is then sorted in descending order of delta. The value of delta is an indicator of the relative position of an affinity in the system. Affinities with positive deltas are considered relative drivers, while those with negative deltas are considered relative effects or outcomes.

An affinity with a high number of *Outs*, but no *Ins*, is considered a primary driver, while an affinity with a high number of *Ins*, but no *Outs*, is considered a primary outcome. A secondary driver is identified as an affinity with both *Ins* and *Outs* but more *Outs* than *Ins*, while a secondary outcome is an affinity with both *Ins* and *Outs* but more *Ins* than *Outs*. Where an affinity has an equal number of *Ins* and *Outs*, it indicates its position in the middle of the system, referred to as the “Pivot” in the final presentation of the system.

The goal of the IRD is to identify the underlying structure of the system or mind map produced by the group, which is summarised in the SID. A Tentative SID

Assignments Table for the two focus groups, as shown in Tables 5.12 and 5.13 in the next chapter, represents the initial placements of affinities for the SID.

Focus Group System Influence Diagram (SID)

Northcutt and McCoy (2004:48) describe the SID as a visual presentation of the "theory in perception grounded in the specific experiences and logic of the constituents". It is a visual representation of an entire system of influences and outcomes and is created by representing the information present in the IRD, as a system of affinities and relationships among them (Northcutt & McCoy, 2004:174).

Northcutt and McCoy maintain that such graphic representations of relationships reflect the system dynamics and indicate where a system might be influenced to change its outcomes, by highlighting relationships among affinities that might be responsible for a system's dynamics, and inviting analysis to improve or influence the system.

Robertson (2015:102) explains that the SID is constructed by using a set of rules through a process of rationalisation of the summarised codes in the IRD produced by the focus group. Northcutt and McCoy (2004:48) define rationalisation as "a set of rules, independent of the nature of the elements of the system, by which elements are first sorted into zones and then connected with the minimum number of relationships consistent with the data".

The process of rationalisation aims to place elements into four different topological zones. A topological zone is defined by Northcutt and McCoy (2004:32) as "a region of a system in which the elements have similar characteristics of influence". The topology of a system refers to the "pattern of links among elements in a system". These concepts are illustrated in Figure 4.2.

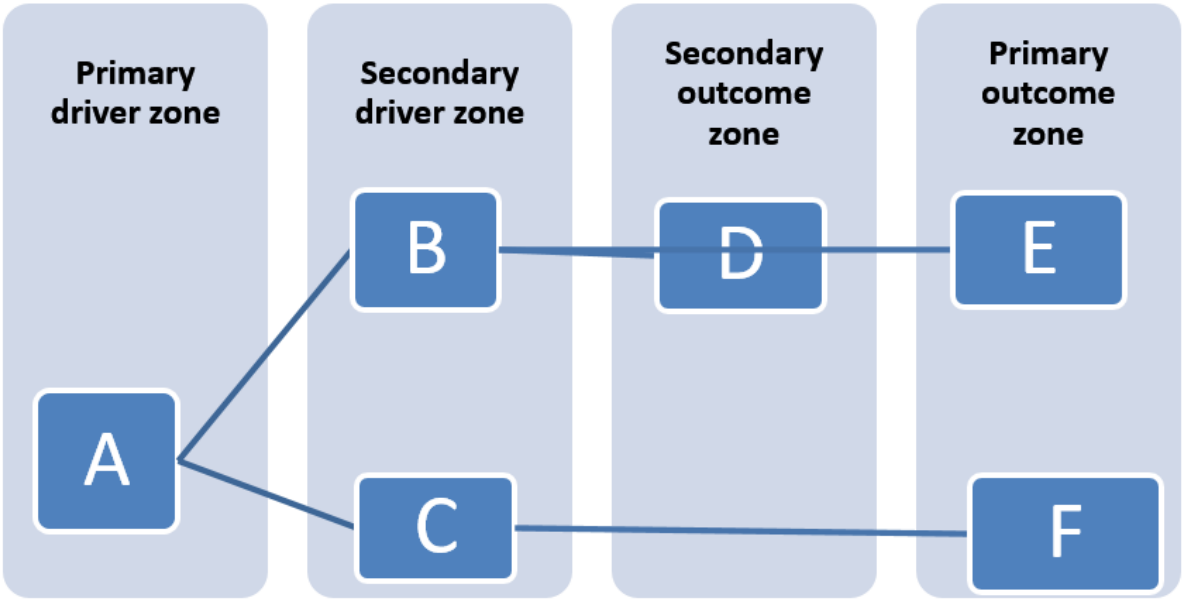

Figure 4.2: Topology of a system

Source: Adapted from Northcutt & McCoy (2004:33)

Northcutt and McCoy (2004:38) emphasise that the rules for constructing a system are independent of the content or nature of the elements themselves. Two different analysts, presented with the same set of focus group data, will thus produce system representations that are topically identical if they adhere to the rules for rationalisation, regardless of either bias from the analysts or the meaning of the elements.

Northcutt and McCoy (2004:176) note that although a SID may be considered as a set of structural equations or a path diagram, it must be distinguished from a traditional pathway, in that recursion or feedback loops are allowed.

For this study, affinities were arranged per the different topological zones. Arrows were used to connect the various affinities in the direction of the relationship, as shown in the IRD of each focus group. A cluttered SID was developed for each focus group, containing all possible relationships. Northcutt and McCoy (2004:176) warn that cluttered SIDs, although being comprehensive and rich in detail, can be difficult to interpret.

A second uncluttered SID was, therefore, developed for each focus group by removing all the redundant links. Redundant links are described by Northcutt and

McCoy (2004:178) as those links between two affinities, in which, even if removed, a path from the driver to the outcome can be achieved through an intermediary affinity.

The cluttered and uncluttered SIDs for the two focus groups will be shown in Figures 5.2, 5.3, 5.4 and 5.5 in the next chapter.

The last phase of the IQA research process involves the compiling of the research report, which is briefly discussed in the next section.

4.6 COMPILING THE REPORT

Robertson (2015:113) maintains that the report signifies the fourth and final phase of the IQA process. The typical IQA report aims to name and describe the elements of the system, to explain the relationships among the elements of the system and to compare different systems, where applicable, to make conclusions. The findings of the study, the IQA report or write-up, and the analysis and interpretation of the data are discussed in the next chapter.

This study took care to adhere to the ethical considerations of qualitative research, as highlighted and explained in Chapter 1, as well as the ethical guidelines for research prescribed by Unisa. The next section discusses the ethical considerations that were relevant to this study.

4.7 ETHICAL CONSIDERATIONS

Focus group constituents were requested to confirm their acceptance and willingness to take part in the study by signing an informed consent form. The consent form detailed the purpose of the study and research methodology to be followed. It was confirmed that participation was voluntary and that all information would be treated confidentially. The researcher explained the purpose of recording during focus group interview sessions, and she requested permission to record these sessions. It was confirmed that transcripts of these sessions would remain confidential and that any information used would not reveal the identities of the participants. A copy of the informed consent form is included in Appendix B.

4.8 SUMMARY

This chapter provided an overview of IQA as a qualitative research methodology, and how it was applied in the present study. The discussion focused on the philosophy of IQA as a qualitative data-gathering and analysis process that depends heavily on group processes to capture a socially constructed view of the reality of constituents. It was highlighted that the main purpose of IQA is to compile a picture of a system (referred to as a System Influence Diagram or SID) that represents the perceptual terrain or mind map of a group regarding the phenomenon represented by the issue statement.

This chapter discussed three different phases of the IQA research process, namely, the research design, focus group interview sessions and reporting. During the research design phase, the problem statement was formulated and the constituencies with an interest in the problem were identified. Thereafter, the target population was defined and a sampling strategy was applied.

During the focus group interview phase, the three kinds of IQA coding, namely, inductive, axial and theoretical coding were introduced. It was discussed how focus groups identify and name elements of a system, also referred to, in IQA, as affinities, by following the IQA focus group interview protocols. Focus group members then, by means of theoretical coding, identified relationships among the various affinities and captured these perceived cause-and-effect relationships in individual Affinity Relationship Tables (ARTs). This was accomplished by the focus group members by following a systematic process of hypotheses building linking each possible pair of affinities.

The data captured in the individual ARTs were used to construct a focus group ART. The data from the focus group ART was used to construct the group Interrelationship Diagram (IRD), which is a summary of the theoretical coding of the focus group. The information in the IRD was used to compile a focus group SID, which is a visual representation of an entire system of influences and outcomes.

This chapter highlighted the role of comparison as a primary method of interpretation. The focus group protocols encourage comparisons by participants throughout the system (Robertson, 2015:116). Comparisons can take place on an

individual basis, comparing the SIDs of the individual constituents or by comparing the SIDs of different constituencies with each other.

Northcutt and McCoy maintain that the “IQA methodology allows for a representation of both individual and group realities, comparisons of which allow the researcher to ask the two great interpretive questions: “What is ...? and “What if ...?”. In the next chapter, these two questions will be answered.

CHAPTER 5:
RESULTS AND FINDINGS

5.1 INTRODUCTION

This study focused on the changing risk environment and the challenges posed to risk practitioners in managing risk in an increasingly complex risk environment. Chapter 1 highlighted the need for risk management education at universities in South Africa to equip risk practitioners with the necessary knowledge, skills, values, attributes and attitudes to manage risks in organisations.

This study aimed to answer the following research question: *What are the risk management competencies that should be covered by a specialised undergraduate degree in risk management?*

The following subsidiary questions were formulated for the study:

- What competencies (including knowledge, skills, attributes, values and attitudes) are needed by risk practitioners to enable them to meet the risk management challenges in South Africa?
- To what extent do the perceptions of academics teaching risk management and risk practitioners correspond or differ in terms of the competencies identified?
- Based on the identified competencies, what are the implications for a proposed specialised undergraduate qualification in risk management?

In this chapter, the first two secondary research questions will be addressed. The first secondary question will be addressed by presenting the results of the research study concerning the competencies (knowledge, skills, attributes and attitudes) that the academics in risk management and risk practitioners regarded as essential to enable risk managers to manage risk effectively. The second secondary research question will be addressed by comparing the affinities and systems generated by the two focus groups.

Robertson (2015:118) emphasises that the typical IQA report aims to achieve three main goals, namely, naming and describing the elements (or affinities) of the system, explaining the relationships in the system (as reflected in the SIDs), and the

comparison of the different systems. Northcutt and McCoy (2004:298) add that *results* in IQA terminology refer to *describing systems,* while *implications* refer to *comparing systems* and setting these comparisons into the two larger contexts of theory (conceptual implications) and application (pragmatic implications). They maintain that the short name for comparing systems and placing these comparisons in context is *interpretation*.

In this chapter, the results of the IQA process are presented, described, analysed and interpreted as part of the final stage of the IQA study. Northcutt and McCoy (2004:298) refer to this chapter as *Describing the Results* chapter, where the researcher addresses two questions: "*What are the affinities*?" and "*How are they related?"* These two questions are addressed in the next section.

5.2 DESCRIBING THE RESULTS

An analytical process, as depicted in Figure 5.1, was followed in describing the results of this study.

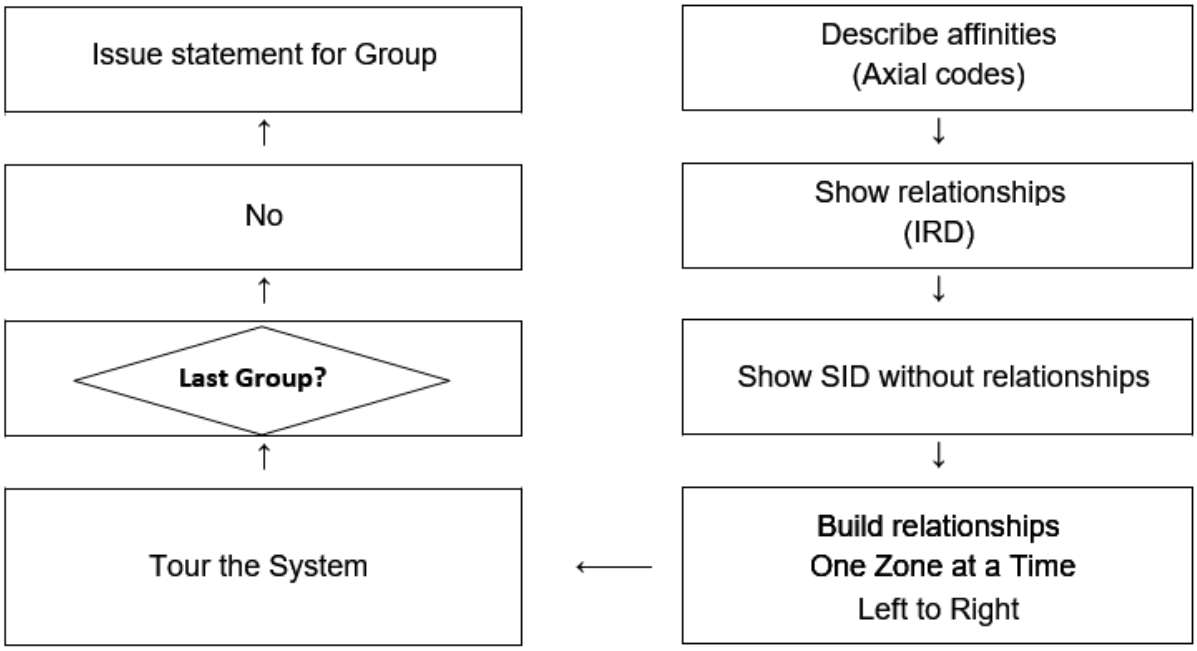

Figure 5.1: Analytical process to describe the results

Source: Northcutt & McCoy (2004:315)

5.2.1 Describing the elements of the system (affinities)

As explained in Chapter 4, two separate focus group interview sessions were convened and constituents were asked to reflect on the competencies a future risk manager should have. Focus Group 1 comprised of lecturers and professors (academics) involved in teaching risk management at public universities. Focus Group 2 comprised of risk practitioners. When asked “Tell me what competencies the future risk manager ideally should have?”, constituents of each focus group generated responses in the form of a word, phrase or sentence on separate index cards. These cards were then sorted by theme and each theme, called an affinity, was given a name.

Focus Group 1 identified the following six affinities, listed in alphabetical order:

1. Business management skills
2. Financial knowledge
3. Governance and compliance understanding
4. People management skills
5. Risk Management process
6. Technical skills

Focus Group 2 identified the following four affinities, listed in alphabetical order:

1. Attributes
2. Knowledge
3. Skills
4. Values

There were similarities between the two groups in terms of the responses written on the index cards in the focus group brainstorming sessions. However, the constituents of the two focus groups differed with regard to the clumping of the cards and the naming of the different categories. Table 5.1 reflects the affinities generated by the constituents of the two focus groups.

The constituents of each focus group were requested to define the meaning of each of the identified affinities. These sessions were recorded, transcribed, and used together with the index cards to compile the affinity write-up for each focus group.

Table 5.1: Affinities generated by the IQA focus group interview sessions

Focus Group 1: Academics 6 Affinities	Focus Group 2: Risk Practitioners 4 Affinities
1 Business management skills ▪ Managerial skills ▪ Business development skills ▪ Understand corporate structures ▪ Understanding the organisation's environment ▪ Knowledge about organisation workings ▪ Training management ▪ Adaptable to change – move with the times ▪ Change management ▪ Project management ▪ Business communication ▪ Quality management ▪ Business background ▪ Strategic thinker ▪ Strategic, strategy ▪ Business management ▪ HR management ▪ Manages stress effectively ▪ Analytical skills ▪ Analyser ▪ Analytical ▪ Pro-active ▪ Prudence ▪ Holistic view ▪ Visionary ▪ Futuristic ▪ Management	**1 Attributes** ▪ Protect and serve ▪ Professionalism ▪ Working in a team and individually ▪ Can-do attitude ▪ Open to new ideas and ways of working ▪ Creative, flexible and adaptable ▪ Think outside the box ▪ Business partner ▪ Courageous conversations ▪ Leadership ▪ Business-minded (K) (E) (S) ▪ Aggregation (bring together) ▪ Expression ▪ Not just pot-hole reporter ▪ Informed (Social) ▪ Be able to challenge ▪ Solution-based analysis ▪ Dedicated ▪ Strategic thinker ▪ High conceptual ability ▪ Informed decisions ▪ Assertiveness (not be easily swayed) ▪ Attention to detail ▪ Aptitude for technology (tools) ▪ Network ▪ Innovator (K), (S) AND (V)
2 Financial knowledge ▪ Budgeting ▪ Probability theory ▪ Financial accounting ▪ Financial management ▪ Financial background ▪ Knowledge of the global economic and political environment ▪ Forecasting ▪ Knowledge of mathematical decision-making models	**2 Knowledge** ▪ Maths skills(Quantitative skills) ▪ Human nature ▪ Value creation/ Money and results/ Accounting and Finance ▪ Industry-specific legislation and regulations ▪ Accounting knowledge ▪ Financial reports ▪ The value of data ▪ Project management

Focus Group 1: Academics 6 Affinities	Focus Group 2: Risk Practitioners 4 Affinities
▪ Econometrics ▪ Numerical skills ▪ Numerate skills ▪ Knowledge of economic and political environment (domestic) ▪ Stats	▪ Qualitative and quantitative ▪ Economic background ▪ Risk background and understanding ▪ Data scientist ▪ Development of risk reports and risk registers ▪ Administrative tasks, i.e. budget and planning and reporting ▪ ERM Theory ▪ Risk integration ▪ Environmental scanning ▪ Application of risk management across functions such as finance, HR, Economics ▪ Key concepts: thresholds, i.e. appetite and culture ▪ Subject matter expert ▪ Risk hat versus business hat ▪ Research ▪ Standards such as ISO ▪ Industry knowledge ▪ Good all-round knowledge of IT and IT landscape ▪ Understanding of innovative disruption, for example, crypto currencies and social networks ▪ Specific knowledge of operational, management, processes and analysis ▪ Business acumen (understanding basics) ▪ Development of risk management documents such as policy, strategy, plan, methodology
3 Understanding Corporate Governance and Compliance ▪ Understand legislation ▪ Relationship management ▪ Work well with regulators ▪ King IV ▪ Focused on institution's goals ▪ Basic understanding of Corporate Law ▪ Commercial law ▪ Critical ▪ Governance ▪ Understanding corporate governance ▪ Understand compliance	**3 Skills** ▪ Supportive ▪ Benchmark ▪ Presentation – develop and deliver ▪ Writing ▪ Reporting writing – dashboard ▪ Maintain calm and give clear guidance ▪ Prepare to learn (practical) ▪ People management ▪ Management ▪ Not just tick-box ▪ Backward and forward-looking ▪ Timelines/relations

Focus Group 1: Academics 6 Affinities	Focus Group 2: Risk Practitioners 4 Affinities
▪ Understand the compliance requirement ▪ Look for the positive in dealing with risk ▪ Critical analyser ▪ Critical thinker	▪ Advisory ▪ Critical thinking ▪ Investigate (dig deeper/ deep-dive) ▪ Enquiring ▪ Systems thinking ▪ Proactive ▪ Business analyst ▪ Initiative ▪ Training skills ▪ Liaison (interaction) between different lines of defence (3 LOD) ▪ Negotiation ▪ Knowledge transfer skills ▪ Organising ▪ Analysis/Interpretation ▪ Analytical ▪ Persuasive ▪ Verbal and written communication ▪ Process ▪ Prioritise ▪ Draw comparison – inside and outside the business ▪ Various methods of facilitation ▪ Problem-solving skills
4 People management skills ▪ People skills ▪ People management skills ▪ Diplomacy ▪ Respect ▪ Understanding human behaviour ▪ Care ▪ Mature ▪ Positive ▪ Focus ▪ Ethical ▪ Integrity ▪ Manages conflict effectively ▪ Facilitator ▪ Motivator ▪ Negotiator ▪ Mentor ▪ Managing organisational culture	**4 Value** ▪ Integrity ▪ Ethical conduct ▪ Respect ▪ Accountability

Focus Group 1: Academics 6 Affinities	Focus Group 2: Risk Practitioners 4 Affinities
▪ Trust ▪ Loyalty ▪ Creativity	
5 Risk management process ▪ Knowledge of risk aspects in an organisation ▪ Understanding of different risks ▪ Understand the risks faced by the organisation ▪ Expert in ERM ▪ Liability insurance ▪ Polymath ▪ ID future risks ▪ Credit risk ▪ Commercial insurance ▪ Personal insurance ▪ ART – Alternative Risk Transfer Techniques ▪ Financial engineering ▪ Market risk ▪ Operational risk ▪ Maintenance management ▪ Security management ▪ Project risk ▪ Safety, health and environment ▪ Supply chain risk ▪ Reputational risk ▪ ICT risk	
6 Technical skills ▪ Strong leadership skills ▪ Leader ▪ Leadership. ▪ Good leader ▪ Team player ▪ Writing skills ▪ Strong research skills ▪ Problem-solver ▪ Problem-solving ▪ Report writing skills ▪ Report writing ▪ Think outside the box ▪ Computer skills	

Focus Group 1: Academics 6 Affinities	Focus Group 2: Risk Practitioners 4 Affinities
▪ Computer literate ▪ Systems skills ▪ Systems knowledge ▪ Organisational skills ▪ Good communication skills ▪ Ability to communicate ▪ Communication ▪ Presentation skills	

FOCUS GROUP 1: AFFINITY WRITE-UP

1. Business management skills

Business management skills represent the affinity that describes the business of ensuring sustainability, including economic, environmental and social sustainability, while organising people, processes and systems to meet the expectations of stakeholders. The constituents believed that a business is a going concern and that the risk manager should understand the impact or severity of risk on a going concern.

The business has different functions, and the risk manager must understand how risk affects the different functions. The risk manager should, furthermore, understand how the company is managed. The constituents believed that business skills entail having a holistic view and understanding of the different parts of the business, as well as how the company as a whole works.

Various constituents highlighted “analytical skills”, “an understanding of the environment in which the organisation operates” and a “strategic view” as important traits of a risk manager.

Words used to describe a business management attitude included “proactive”, “visionary”, “futuristic”, “holistic”, “prudent” and “adaptable”.

Specific business management functions, such as training management, change management, project management, human resource (HR) management, quality management, stress management and business communication, were listed by constituents as specific business management knowledge areas.

2. Financial knowledge

Financial knowledge was identified as an affinity to describe the knowledge needed in terms of finance, economics and statistics. Constituents believed that risk management includes the assessment of the probability and severity of the risk and that the risk manager should understand the financial consequences if any of the risks in the organisation materialise.

Constituents felt that the risk manager's view of financial statements differs from that of an accountant or auditor. Constituents noted that the risk manager should view financial statements with due consideration for the impact of risks in terms of their severity and probability. Constituents believed that a good knowledge of accounting was furthermore important to facilitate risk-related conversations with the board of an organisation.

Constituents listed specific financial skills such as "budgeting", "forecasting" "financial accounting", "financial management" and "numeracy" as important skills needed by a risk manager.

Good knowledge of "mathematical decision-making models", "probability theory", "statistics" and "econometrics" was considered important by various constituents. Some constituents felt that knowledge of the "global and domestic economic and political environment" could assist the risk manager in his or her management of organisational risks.

3. Understanding governance and compliance

Constituents identified *understanding governance and compliance* as an affinity to describe the language of governance and compliance. Risk managers must report to the board of the organisation on matters of governance and compliance in line with various developments, such as King in South Africa and Cadbury in the UK.

Constituents believed that risk management and compliance had become a board matter. The risk manager must report to the board and assure them that the governance systems of the organisation are in order and that the organisation complies with legislative requirements. The risk management function together with internal and external auditing, take care of governance and compliance in a business. As such, the risk manager should have a clear understanding of the

language of governance and compliance to communicate with the board. The risk manager should also know about governance systems and compliance requirements.

Some constituents noted the importance of knowledge and understanding of “legislation”, “corporate governance” and “compliance requirements”, while others listed “corporate law”, “commercial law” and “King IV” as specific knowledge areas. Some constituents felt that the risk manager, as part of its governance and compliance function, should work well with regulators and focus on organisational goals. In this regard, some constituents felt that the risk manager should be a “critical thinker” and be able to apply “relationship management”.

4. People management skills

This affinity described the skills needed by the risk manager to facilitate the risk management process across the enterprise. It is the skills he or she will need in their interaction with people across the enterprise, some of whom might resist their actions and be argumentative. Constituents, therefore, believed that a risk manager must have a “thick skin” and know how to manage “difficult situations”.

Some constituents noted that people skills are a part of personal values/traits and felt that it is something that is picked up “as you go along”. Other respondents believed that people skills could be taught by using various disciplines to assist in developing the skill of “understanding”, “communicating”, and “motivating” in the creation of a safer working environment.

Constituents used words such as “trust”, “creativity”, “focus”, “integrity”, “loyalty”, “mature”, “positive”, “respect”, “diplomacy”, “care” and “ethical” to describe the personal traits needed by a risk manager in dealing with people. Constituents used words such as “motivator”, “negotiator”, “mentor” and “facilitator” to describe the specific roles the risk manager plays in his or her interaction with people across the enterprise.

Some constituents noted that the risk manager should understand human behaviour and be able to manage organisational culture and conflict effectively.

5. Risk management process

Constituents identified the *risk management process* as an affinity to describe the importance of having an understanding of the risk management process, which entails the identification, evaluation and mitigation/control/management of risk. Constituents emphasised that a risk manager, in applying the risk management process, should facilitate the systems that are used throughout the whole organisation, while taking cognisance of the risk management framework and policies of the organisation.

The distinction between insurable and uninsurable risks in the mitigation process was emphasised. Mitigation was considered a wide concept, and a clear understanding of insurable versus non-insurable risks was considered very important as not all risks can be transferred.

A risk manager must further be able to apply the risk management process across the organisation and not in silos, as seen from documents such as King IV, Cambridge, Cadbury and FSB regulations that apply to insurance. The word “polymath” was used by constituents to refer to the application of risk management across the organisation and includes taking a wider look at risks to include the identification of future risks. It was emphasised that risks change and that new risks develop all the time. In this regard, participants felt that the risk manager must be able to adapt to these changes.

Constituents used words such as “credit risk”, “market risk”, “operational risk”, “project risk”, “supply chain risk”, “reputational risk”, “ICT risk”, “liability insurance”, “commercial insurance”, “personal insurance”, “safety”, “health and environment”, “security management” and “maintenance management”, “financial engineering” and “Alternative Risk Transfer Techniques (ART)” to describe the various fields of risk management.

Constituents believed that knowledge of risk aspects in the organisation, an understanding of different risks, and expertise related to the ERM approach were important traits of a risk manager.

6. Technical skills

The term *technical skills* was used for the affinity describing the secondary skills needed by a risk manager that would make him or her more effective and efficient in performing the tasks of a risk manager. Constituents view these skills as complementary to understanding the risk management process and financial skills.

Various constituents emphasised leadership skills as an important skill, using words or phrases such as “strong leadership”, “leadership skills”, “leader”, “leadership” and “good leader”. “Good communication skills” and “computer literacy and skills” were also highlighted as important technical skills. Other technical skills listed by constituents include “team player”, “systems knowledge and skills”, “organisational skills”, “presentation skills”, “think outside the box”, “report writing skills”, “problem-solving”, “strong research skills” and “writing skills”.

FOCUS GROUP 2: AFFINITY WRITE-UP

1. Attributes

Attributes was listed as an affinity by the constituents to describe the inherent qualities, features or characteristics that the typical risk manager should have. The constituents believed a typical risk manager should be a “professional” with a “can-do attitude”.

They believed that a typical risk manager should ideally be “creative”, “flexible”, “adaptable”, “informed”, “dedicated”, “assertive”, “innovative”, “business-minded” and have natural “leadership” abilities. Some constituents added that a typical risk manager must have the natural flair to work “individually as well as in a team”, to “aggregate (bring together) people and facts”, and to “challenge ideas and decisions” by entering into “courageous conversations” at all levels of the organisation.

Constituents believed that a typical risk manager should also be “open to new ideas and ways of working”, be a “strategic thinker”, and have a natural “aptitude for technology”. Constituents commented that a risk manager should have “high conceptual abilities” and the ability to pay “attention to detail” which will allow for “informed decision-making”.

2. Knowledge

Knowledge was defined as an affinity by constituents that describe the theoretical foundation that a risk manager needs in the performance of his or her everyday tasks. The constituents believed that the theoretical foundation serves as “the building blocks” that a risk manager applies in the management of risk.

Constituents highlighted the importance of a good understanding of risk management theory by using phrases or words such as “risk background and understanding”, “development of risk reports and risk registers”, “ERM theory”, “risk integration”, “application of risk management across functions such as finance, HR and economics”, “key concepts such as thresholds, appetite and culture”, “subject matter expert”, “risk hat versus business hat”, and “development of risk management documents such as policy, strategy, plan, methodology”.

Constituents further believed that a good understanding and knowledge of business is important. They specifically referred to “accounting knowledge”, “financial reports”, “value creation/money”, “results/accounting and finance”, “project management”, “economic background”, “administrative tasks, i.e. budget and planning and reporting”, “specific knowledge of operational management, processes and analysis”, and “business acumen (understanding basics)”.

Some constituents maintained that good knowledge and understanding of maths and IT are important by listing “maths skills (quantitative skills)”, “the value of data”, “qualitative and qualitative”, “data scientists”, and “good all-round knowledge of IT and IT landscape”.

Constituents also believed that a good understanding of the legal landscape is vital in the theoretical foundation of a risk manager, with specific reference to “industry-specific legislation and regulations”, and “standards such as ISO”.

Some constituents also believed that a good knowledge of “human nature”, “research” and a fundamental understanding of “innovative disruption, for example, crypto-currencies and social networks” are essential.

3. Skills

The term *skills* is the affinity describing the main abilities that risk managers should have that would make them more effective and efficient in performing their tasks.

Constituents defined skills as “practical contributions based on your experience”, “the ability to do things well based on your knowledge” and the ability “to apply practically what you have learned”.

Constituents believed that the typical risk manager should be skilled in being “supportive”, “proactive”, “analytical”, and “persuasive”.

The constituents believed that a typical risk manager should further be skilled in “report writing, including dashboard presentations", “developing and delivering of presentations”, and “verbal and written communication”.

Some constituents maintained that the typical risk manager must have the ability to “maintain calm and give clear guidance”, “take “initiative”, be “prepared to learn”, be able to “liaise between different lines of defence (3 LOD)” and have the ability to assist in the “transfer of knowledge”. Risk managers should acquire the abilities of “critical thinking”, “problem-solving”, and be aware that risk management is not just a mere “tick-box” exercise.

The risk manager must have the ability to “benchmark” various risk management options, “draw comparisons, both inside and outside the business”, and be able to investigate potential risks and mitigation options by “digging deeper/dive deep”.

Constituents listed management and related skills, such as “people management”, “systems thinking”, “business analyst”, “training”, and the ability to execute “various methods of facilitation”, as important skills. Constituents also maintained that a typical risk manager should acquire skills to “negotiate”, “organise”, “process”, “analyse” and “interpret” information. Some of the constituents added that a typical risk manager should have the ability to launch and conduct an “enquiry” in an organisation with regard to risk management issues.

4. Values

Constituents identified *values* as an affinity to describe those aspects that guide, steer and motivate your actions. Values are further seen by constituents as a “total relationship act with integrity”. “Value speaks to behaviour”. Constituents believed that values influence how individuals act. Individuals act, based on their ”judgement” or “belief” in what the “right” thing is to do. Constituents believed that values in a risk

management environment include “integrity”, “ethical conduct”, “respect” and “accountability”.

5.2.2 Explaining the relationships among the elements of the system (Theoretical coding)

The previous section described affinities using the words of the constituents. In the same manner, the constituents’ own words were used to describe the relationships among the affinities in this section.

As explained in Chapter 4, the constituents in the two focus groups were requested to each complete a detailed Affinity Relationship Table. Each constituent was asked to, independently, determine the nature of the relationship between all possible pairs of affinities and write down a statement that reflects their experiences, or to provide examples that support the cause-and-effect relationship recorded for the affinity pair. The output of this protocol is referred to by Northcutt and McCoy (2004:154), as “independent coding” and is rich in both volume and range of data.

Focus Group 1 comprised of seven constituents, resulting in seven separate pieces of code for each affinity pair and seven separate explanations for the codes. The same applied to Focus Group 2 with its seven constituents, resulting in seven separate pieces of code for each affinity pair and seven separate explanations for the codes. The detailed, individual ARTs provided a record of the reasoning and examples, grounded in the experiences of the individual constituent or subgroup.

5.2.2.1 Developing a focus group interview group composite

Northcutt and McCoy (2004:157) explain that, depending on the variation of theoretical coding used, it is quite likely that there will be some disagreement among either individuals or subgroups about the nature of a given relationship. They point out that IQA uses the Pareto rule of thumb operationally to achieve consensus, and analytically to create a statistical group composite. They believe that the Pareto Cumulative Frequency Chart provides an efficient and satisfying method for achieving consensus in a group. The Pareto Principle, when applied in terms of systems, states that 20% of the variables in a system will account for 80% of the total variation in outcomes.

The following steps are used to develop a Pareto composite:

- Prepare a combined ART. Using the individual ARTs, the total number of votes for each relationship pair is recorded in affinity order.
- Sort the relationships in descending order of frequency and calculate cumulative frequencies and percentages in terms of both the total number of relationships, as well as the total number of votes.

Northcutt and McCoy (2004:157) explain that the cumulative frequencies are used to determine the optimal number of relationships that will comprise the composite system. They continue that “optimal” is used in the sense that the researcher’s goal is to use the lowest number of relationships (for the sake of parsimony) that represent the greatest amount of variation (for the sake of comprehensiveness and richness). Relationships with a low percentage of votes are generally excluded from the group composite. Cumulative frequencies are also used to resolve ambiguous relationships or conflicts. Northcutt and McCoy (2004:157) explain that conflict might arise where a focus group has written a number of hypotheses arguing that, for example, affinity A influences B. Another set of hypotheses argues the opposite. When submitted to the Pareto Chart, the argument is not resolved in the sense that hypotheses that argue for both directions are included in the optimal number of relationships, and both seem equally plausible.

Northcutt and McCoy believe that ambiguous relationships typically result from a failure to detect a common influence, with a third affinity or an undetected feedback loop in which more than two affinities influence another one, for example, A influences C, which in turn influences B, so A indirectly influences B. Northcutt and McCoy suggest that ambiguous relationships should be suspended until a picture of the system (SID) is created that is based on unambiguous relationships. If an examination of the SID reveals that the ambiguous relationship is part of a subsystem, then the SID accounts for the ambiguity, and nothing else needs to be done. If the two affinities are, however, not related, either through a common affinity, or not part of a feedback loop, the researcher must either reanalyse or re-hypothesise, or try to resolve the ambiguity by conducting individual interviews.

Table 5.2 shows the frequencies in affinity pair order for Focus Group 1, and Table 5.3 shows the affinities in descending order of frequency with Pareto and power for Focus Group 1.

Table 5.2: Frequencies in Affinity Pair Order for Focus Group 1

Affinity Name
1. Business management skills
2. Financial knowledge
3. Governance and Compliance understanding
4. People management skills
5. Risk management process
6. Technical skills

Combined Theoretical Code Frequency Table					
Affinity Pair Relationship	**Frequency**	**Affinity Pair Relationship**	**Frequency**	**Affinity Pair Relationship**	**Frequency**
1 → 2	3	2 → 3	4	3 → 5	3
1 ← 2	2	2 ← 3	1	3 ← 5	4
1 <> 2	2	2 <> 3	2	3 <> 5	0
1 → 3	5	2 → 4	1	3 → 6	1
1 ← 3	1	2 ← 4	3	3 ← 6	3
1 <> 3	1	2 <> 4	3	3 <> 6	3
1 → 4	2	2 → 5	4	4 → 5	5
1 ← 4	4	2 ← 5	2	4 ← 5	2
1 <> 4	1	2 <> 5	1	4 <> 5	0
1 → 5	4	2 → 6	2	4 → 6	2
1 ← 5	3	2 ← 6	4	4 ← 6	3
1 <> 5	0	2 <> 6	1	4 <> 6	2
1 → 6	2	3 → 4	1	5 → 6	2
1 ← 6	3	3 ← 4	5	5 ← 6	5
1 <> 6	2	3 <> 4	1	5 <> 6	0

Majority vote used to compile Focus Group Affinity Relationship Table

Table 5.3: Affinities in descending order of frequency with Pareto and power for Focus Group 1

	Affinity pair relationship	Frequency sorted descending	Cumulative frequency	Cumulative percent (relation)	Cumulative percent (frequency)	Power
1	1>3	5	5	3.33	5.81	2.48
2	3<4	5	10	6.7	11.63	4.93
3	4>5	5	15	10.0	17.44	7.44
4	5<6	5	20	13.3	23.26	9.96
5	1<4	4	24	16.7	27.91	11.21
6	1>5	4	28	20.0	32.56	12.56
7	2>3	4	32	23.3	37.21	13.91
8	2>5	4	36	26.7	41.86	15.16
9	2<6	4	40	30.0	46.51	16.51
10	3<5	4	44	33.3	51.16	17.86
11	1>2	3	47	36.7	54.65	17.95
12	1<5	3	50	40.0	58.14	18.14
13	1<6	3	53	43.3	61.63	18.33
14	2<4	3	56	46.7	65.12	18.42
15	3>5	3	59	50.0	68.60	18.60
16	3<6	3	62	53.3	72.09	18.79
17	4<6	3	65	56.7	75.58	18.88
18	1<2	2	67	60.0	77.91	17.91
19	1>4	2	69	63.3	80.23	16.93
20	1<6	2	71	66.7	82.56	15.86
21	2<5	2	73	70.0	84.88	14.88
22	2>6	2	75	73.3	87.21	13.91
23	4<5	2	77	76.7	89.53	12.83
24	4>6	2	79	80.0	91.86	11.86
25	5>6	2	81	83.3	94.19	10.89
26	1<3	1	82	86.7	95.35	8.65

	Affinity pair relationship	Frequency sorted descending	Cumulative frequency	Cumulative percent (relation)	Cumulative percent (frequency)	Power
27	2<3	1	83	90.0	96.51	6.51
28	2>4	1	84	93.3	97.67	4.37
29	3>4	1	85	96.7	98.84	2.14
30	3>6	1	86	100	100	0

	Highest power
	Opposite relationship of the 20 highest power relationships
	Conflict relationships
	Not within the highest power

Table 5.4 shows the frequencies in affinity pair order for Focus Group 2, and Table 5.5 illustrates the affinities in descending order of frequency with Pareto and power for Focus Group 2.

Table 5.4: Frequencies in Affinity Pair Order for Focus Group 2

Affinity Name
1. Attributes
2. Knowledge
3. Skills
4. Values

Combined Theoretical Code Frequency Table: Focus Group 2				
Affinity Pair Relationship	**Frequency**		**Affinity Pair Relationship**	**Frequency**
1→ 2	1		2 → 3	6
1← 2	4		2 ← 3	0
1 <> 2	2		2<> 3	1
1 → 3	3		2 → 4	2
1 ← 3	2		2 ← 4	2
1<> 3	2		2<> 4	3
1 → 4	0		3 → 4	1
1 ← 4	6		3 ← 4	4
1<> 4	1		3<> 4	2

Table 5.5: Affinities in descending order of frequency with Pareto and power for Focus Group 2

	Affinity pair relationship	Frequency sorted descending	Cumulative frequency	Cumulative percent (relation)	Cumulative percent (frequency)	Power
1	1<4	6	6	8.33	19.35	11.02
2	2>3	6	12	16.67	38.71	22.04
3	1<2	4	16	25.00	51.61	26.61
4	3<4	4	20	33.33	64.52	31.19
5	1>3	3	23	41.67	74.19	32.52
6	1<3	2	25	50.00	80.65	30.65
7	2>4	2	27	58.33	87.10	28.77
8	2<4	2	29	66.67	93.55	26.88
9	1>2	1	30	75.00	96.77	21.77
10	3>4	1	31	83.33	100.00	16.67
11	1>4	0	31	91.67	100.00	8.33
12	2<3	0	31	100.00	100.00	0.00

	Highest power
	Opposite relationship of the 6 highest power relationships
	Conflict relationships
	No votes, to be excluded from group SID

Northcutt and McCoy (2004:160) explain that the last two columns of the Pareto table are key to deciding which relationships should be included in the group SID. Relationships with no votes should be excluded. The question, however, is how to determine the cut-off point for relationships that attracted relatively few votes? Northcutt and McCoy (2004:160) suggest the use of the MinMax criteria in terms of which the composite should account for maximum variation in the system (cumulative percentages based upon frequency) while minimising the number of relationships in the interest of parsimony (cumulative percentage based on relations).

Regarding Table 5.3, the power reaches a maximum at 17 relationships, which accounts for 75.58% of the variation in the system. Therefore, 17 relationships would be a defensible choice for inclusion in the group SID, as it is an optimal number in the sense of the MinMax criteria.

Regarding Table 5.5, the power reaches a maximum at six relationships, which accounts for 80.65% of the variation in the system. Therefore, six relationships would be a defensible choice for inclusion in the group SID, as it is an optimal number in the sense of the MinMax criteria. The ambiguous relationships in terms of affinities 2 and 4, indicated in pink in the Pareto Chart, are automatically resolved by applying the MinMax criteria, as these relationships do not form part of the optimal number of relationships used to create the group composite.

In this section, relationships to be presented in the SID were identified through the use of the Pareto and MinMax principles. Northcutt and McCoy (2004:168) emphasise that irrespective of how the group theoretical codes were constructed, the final output is always a display of the codes in an Interrelationship Diagram (IRD). The next section illustrates and discusses the construction of the IRD for the two focus groups.

5.2.2.2 Creating a group composite: The IRD

According to Northcutt and McCoy (2004:170), creating an IRD is the first step in a general process called rationalising the system. The creation of an IRD involves the transfer of relationships from the focus group ART to a combined group IRD for each focus group.

To create a focus group ART, the frequencies of the different relationship pairs, as reflected in Table 5.2 (Focus Group 1) and Table 5.4 (Focus Group 2) are used. The majority vote relationship is used to create the focus group ART, as illustrated in Tables 5.6 and 5.9 for the two focus groups, respectively.

The comments and examples indicated in the second columns of Table 5.6 and Table 5.9 were obtained from the detailed ARTs produced by the constituents. These are direct quotes by constituents and were indicated verbatim in the detailed ARTs. The quotes may, therefore, contain grammatical errors and abbreviations. Where the meaning of an abbreviation might be confusing, the researcher took the liberty to write out the words. These quotes are a reflection of the real-time

experience and everyday voice of the constituents and limit any bias on the side of the researcher. In some cases, particularly involving the relationship between affinities 2 and 3, and 2 and 4, many of the constituents merely indicated the direction of the relationship but failed to provide examples of an IF/THEN statement. The information contained in the focus group ARTs for the two focus groups was used to create the IRDs for each of the groups.

Table 5.6: Focus Group 1: Affinity Relationship Table

Affinity Pair Relationship	Example of the relationship in the words of the constituents or in the form of an if/then statement of relationship
1→2	*Need to understand business to understand financial statements. Strategy/Business knowledge must be complemented with Finance. Overall knowledge of business will enhance overview of FM (Financial Management).*
1→3	*If you have BMS (Business management skills) you will better understand G&C (Governance and Compliance. You need to have a good understanding of laws and regulations. To understand business you need to understand sales and regulations. Business/ running concern needed, followed by governance for sustainability. Need knowledge of business to incorporate compliance issues.*
1←4	*If you have PMS (People Management Skills), you will also do better in the management of the business. Good people skills lead to good business management skills. Understanding crucial to let employees feel valued, get buy-in. Need a knowledge of people to manage.*
1→5	*If you have BMS, you will be able to implement risk management practices. Risk officer needs to understand business management to implement RM (Risk Management). Need to understand the business to appreciate the contribution of ERM (Enterprise Risk Management). Need knowledge of business to identify/understand the RM (Risk Management) process.*
1←6	*You should be good at writing reports. Need IT (technical skills) for efficiency and effectiveness. Enhanced technical skills will ↑ business management skills.*
2→3	*When reporting to the board on compliance, you need to understand the financial position. Fin. (financial) understanding for sustainability, implement gov. (governance).*
2<>4	*Three constituents indicated that they could see no relationship between affinities 2 and 4. One constituent showed a relationship 2<4 but did not include a hypothesis or IF/THEN statement. Two other constituents also indicated a 2<4 relationship but failed to formulate reasonable hypotheses and IF/THEN statement that could validate their choice. One constituent indicated the relationship as 2>4.* ***The conflict was not resolved in the Pareto Table. Since no reasonable motivations were supplied for the relationship 2←4, the no relationship vote was***

Affinity Pair Relationship	Example of the relationship in the words of the constituents or in the form of an if/then statement of relationship
	considered in compiling the IRD.
2→5	*You need financial knowledge to implement the RM (Risk Management) process. A basic understanding of FM (Financial Management) will assist in determining severity and probability in Risk Management. Understand financial impact of risk to appreciate risk management contributions.*
2←6	*If one has Excel modelling skills it is easier to gain financial knowledge. Need technical skills to analyse financial statements. ICT skills enhance application of financial concepts. Technical skills enhance financial knowledge – being able to use software.*
3←4	*With PMS you will understand G & C better (relationship with board). Good management of people enhances the probability of compliance. Need to be ethical to be compliant. People will respond differently to governance structures and policies. Being able to communicate with regulators.*
3←5	*G&C is an outcome of an effective RMP. Understanding of the risk process reduces non-compliance. The most fundamental skill a risk manager needs is of the risk management process. All others supplement this skill.*
3←6	*Able to use technical skills in executing G&C. Technical skills are ingredients for governance and compliance. Compliance and governance need good reporting skills. Three constituents indicated that there is no relationship between the affinities.* ***The Pareto table does not resolve this conflict. As the motivations for the relationship 3←6 were deemed sufficient, this relationship was included in the IRD.***
4→5	*Good MS (Management Skills) are required in the risk management process. Ability to manage people may create buy-in by workers to risk strategy. Risk officer needs to be a facilitator and a leader. People key role in operational risks, ID (identification), mitigation. Need to manage people within organisation and team - evaluate risk.*
4←6	*Mentorship skills may improve a person's people management skills. The people management skills will determine the required technical skills. Can increase your people skills through more technical skills, i.e. communication through presentations. People appreciate effective and efficient leaders.*
5←6	*Technical skills are required in the risk management process. One needs quantitative skills in the financial risk management process. To be a risk manager, you need technical skills, for example, computer skills. Technology determines how an automated process will be (digitised). Technical skills, such as being able to read graphs, do calculations, solve problems, enhance RM process understanding.*

Table 5.7: IRD for Focus Group 1

Affinity Name
1. Business management skills
2. Financial Knowledge
3. Governance and Compliance understanding
4. People management Skills
5. Risk management Process
6. Technical Skills

Tabular IRD									
	1	**2**	**3**	**4**	**5**	**6**	**OUT**	**IN**	**Δ**
1		↑	↑	←	↑	←	3	2	1
2	←		↑	0	↑	←	2	2	0
3	←	←		←	←	←	0	5	-5
4	↑	0	↑		↑	←	3	1	2
5	←	←	↑	←		←	1	4	-3
6	↑	↑	↑	↑	↑		5	0	5

Table 5.8: Tabular IRD for Focus Group 1 in descending order of Δ

Tabular IRD in descending order of Δ									
	1	**2**	**3**	**4**	**5**	**6**	**OUT**	**IN**	**Δ**
6	↑	↑	↑	↑	↑		5	0	5
4	↑	0	↑		↑	←	3	1	2
1		↑	↑	←	↑	←	3	2	1
2	←		↑	0	↑	←	2	2	0
5	←	←	↑	←		←	1	4	-3
3	←	←		←	←	←	5	0	-5

Table 5.9: Focus Group 2: Affinity Relationship Table

Affinity Pair Relationship	Example of the relationship in the words of the constituents or in the form of an if/then statement of the relationship
1←2	*Knowledge creates ability/ We learn, and behaviour adapt. Knowledge will promote the potential attributes of risk management. The knowledge that has been learned will drive the attribute as you apply the process. Knowledge acquired over time tends to influence general behaviour.*
1→3	*A tool to apply and build capacity. Attributes will influence the way that skills are practically applied. If business-minded, he/she can advise.*
1←4	*If integrity, then dedicated. Inherent (DNA) aligning with behaviour. Values will drive and provide borders for attributing to risk management. Values are acquired or developed prior to the development of attributes. The values of an individual have a significant influence/impact on attributes. Values such as ethics influence how people show their traits, e.g. leadership.*
2→3	*If knowledge obtained, then applied practically. Need the foundation to start working/applying from. Knowledge provides basis/ platform to develop skills. Through gaining knowledge, your much better able to apply the skill. Knowledge correctly acquired will directly influence practical skill to apply in the real world. Knowledge can be used, or it creates a way to acquire the skills.*
2<>4	*Three of the seven constituents indicated that they could not see any relationship between affinities 2 and 4, i.e. knowledge and values. Two constituents saw the relationship as 2>4 while another 2 saw it as 2<4.*
3←4	*The output required as far as skills are concerned for a successful risk manager is dependent on the values. Values will ensure the practical application of skills within ethical standards and code of conduct. Values will influence whatever attributes or knowledge execution. Values will being behavioural, influence the application of skills.*

Table 5.10: IRD for Focus Group 2

Affinity Name
1. Attributes
2. Knowledge
3. Skills
4. Values

Tabular IRD							
	1	**2**	**3**	**4**	**OUT**	**IN**	**Δ**
1		←	↑	←	1	2	-1
2	↑		↑	0	2	0	2
3	←	←		←	0	3	-3
4	↑	0	↑		2	0	2

Table 5.11: Tabular IRD for Focus Group 2 in descending order of Δ

Tabular IRD – Sorted in Descending Order of Δ							
	1	**2**	**3**	**4**	**OUT**	**IN**	**Δ**
2	↑		↑	0	2	0	2
4	↑	0	↑		2	0	2
1		←	↑	←	1	2	-1
3	←	←		←	0	3	-3

5.2.3 Focus group System Influence Diagram

Northcutt and McCoy (2004:174) define a System Influence Diagram (SID) as a visual representation of an entire system of influences and outcomes, created by representing the information presented in the IRD as a system of affinities and relationships among them.

In the previous section, the IRDs for both focus groups were constructed (see Tables 5.7 and 5.10). The arrows in the IRDs were counted to determine the value of delta (Δ). The IRD tables were then sorted in descending order (see Tables 5.8 and 5.11).

The value of the delta was used to determine the relative position of an affinity in the system. Affinities with positive deltas are relative drivers, while those with negative deltas are relative outcomes or effects.

Northcutt and McCoy (2004:173) mention that the *No Ins Rule* states that any affinity with no *Ins* is always a Primary Driver. The Primary Driver affects many other affinities but is not affected by others. Robertson (2015:164) states that Primary Drivers are located in the extreme left zone of the SID topology. A Secondary Driver contains both *Ins* and *Outs* but has more *Ins* than *Outs*. Where an affinity has an equal number of *Ins* and *Outs*, it is referred to as the "circulator" or "pivot" and indicates a position in the middle of the system.

Affinities with only ingoing arrows are referred to as Primary Outcomes. A Primary Outcome is an effect caused by many of the affinities, but it does not affect others. Primary Outcomes are located to the extreme right of the SID topology. Where an affinity has more *Ins* than *Outs*, it is referred to as a Secondary Outcome.

Using the calculated deltas for the two focus groups, the drivers and outcomes for the two systems were determined and presented in a Tentative SID Assignment Chart, as shown in Tables 5.12 and 5.13, respectively.

Table 5.12: Tentative SID Assignments for Focus Group 1

Affinity		Tentative SID Assignments
6	**Technical Skills**	Primary driver
4	**People management skills**	Secondary driver
1	**Business management skills**	Secondary driver
2	**Financial knowledge**	Pivot
5	**Risk management process**	Secondary outcome
3	**Governance and Compliance understanding**	Primary outcome

Table 5.13: Tentative SID Assignments for Focus Group 2

Tentative SID Assignments		Tentative SID assignments
2	**Knowledge**	Primary driver
4	**Values**	Primary driver
1	**Attributes**	Secondary outcome
3	**Skills**	Primary outcome

To develop the SID, affinities are arranged according to the Tentative SID Assignment Charts in rough order of topology zones. Primary Drivers are placed to the extreme left, while Primary Outcomes are placed to the extreme right of the screen. Secondary drivers and secondary outcomes are placed between the primaries. The circulator or pivot, if applicable, is placed in the middle between the Secondary Drivers and Secondary Outcomes.

Each affinity number is placed in an oval (or another shape), and relationships, as represented in the respective IRDs, are used and indicated by arrows to form a cluttered SID for each of the two focus groups.

5.2.3.1 Cluttered and uncluttered SID for Focus Group 1

A SID drawn with all the relationships as reflected in the IRD is called a cluttered SID, as illustrated in Figure 5.2. Northcutt and McCoy (2004:178) advise that the SID should be spread in a circle to enable the relationships to be more visible and to identify and remove redundant links.

In Figure 5.2, “Technical skills” is the Primary Driver, while “Governance and Compliance” is the Primary Outcome. “People management skills” and “Business management skills” are Secondary Drivers, while the “Risk management process” is a Secondary Outcome. “Financial knowledge” is the pivot point and has no relationship with “People management skills”.

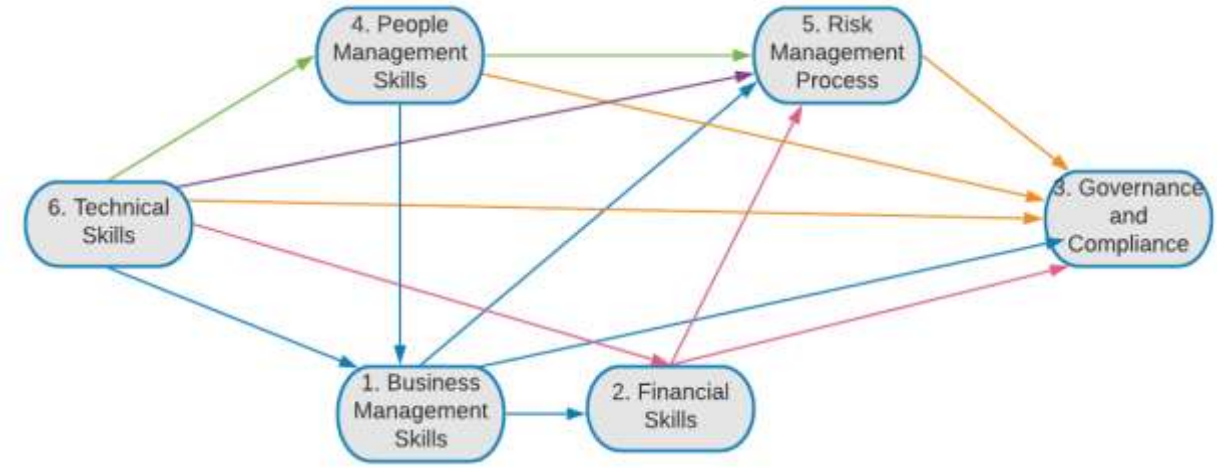

Figure 5.2: Cluttered SID: Focus Group 1

Northcutt and McCoy (2004:329) point out that a cluttered SID is often saturated with the number of relationship links, and is therefore difficult to interpret. They believe that the excessive number of relationship links in some systems distorts the explanatory power of the system. Although a SID aims to be as comprehensive and rich in information as possible, parsimony should not be neglected. A way to reconcile the richness-parsimony dilemma is to create a secondary SID where redundant links between affinities are removed. This SID is referred to as an Uncluttered SID. Redundant links are those links between two affinities that, should it be removed, a path from the driver to the outcome can still be achieved through an intermediary affinity.

The constituents of Focus Group 1 indicated that Affinity 6 influences all other affinities. An examination of the cluttered SID reveals that Affinity 6 (Primary Driver) does indeed influence Affinity 3 (Primary Outcome) through the mediation of Affinities 1, 4 and 5. There is thus a path from 6-4-1-5-3. All other direct links between Affinity 6 and Affinities 4, 5 and 3 can be deleted as redundant links. The constituents indicated that there is no direct link between Affinities 2 and 4. Affinity 6 influences Affinity 2 through the mediation of Affinity 1. The direct link between Affinity 6 and 2 is, therefore, redundant.

By removing the redundant links, an uncluttered version of the SID can be constructed, as illustrated in Figure 5.3.

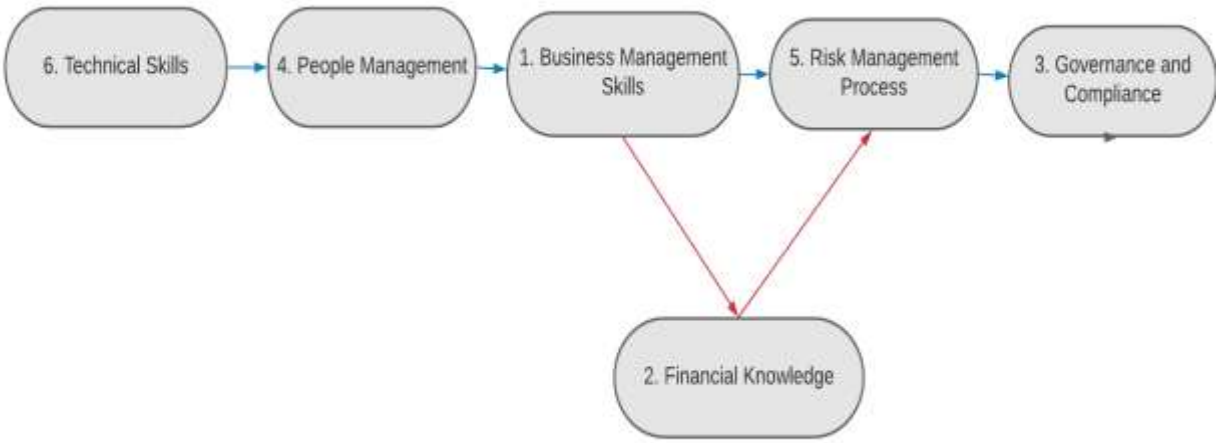

Figure 5.3: Uncluttered SID for Focus Group 1

5.2.3.2 Cluttered and Uncluttered SID for Focus Group 2

The constituents of Focus Group 2 identified two Primary Drivers, Affinities 2 and 4. They also indicated that they could not see a link between these two affinities. The constituents identified Affinity 3 as the Primary Outcome. There is a direct path from each of the Primary Drivers to the Primary Outcome through the mediation of Affinity 1.

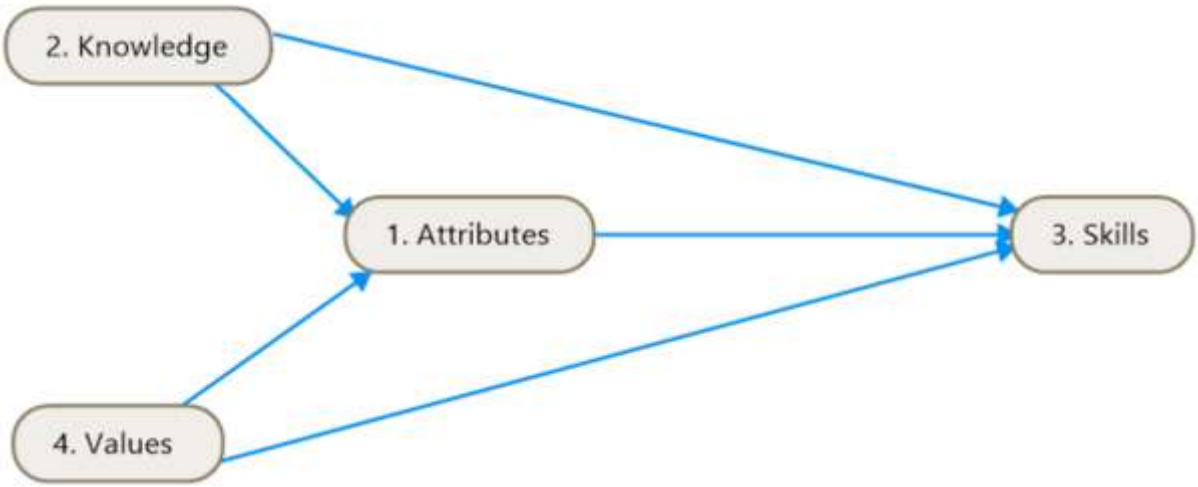

Figure 5.4: Cluttered SID: Focus Group 2

The redundant links between Affinities 4 and 3 and Affinities 2 and 3 can be removed to create an uncluttered SID for Focus Group 2, as illustrated in Figure 5.5.

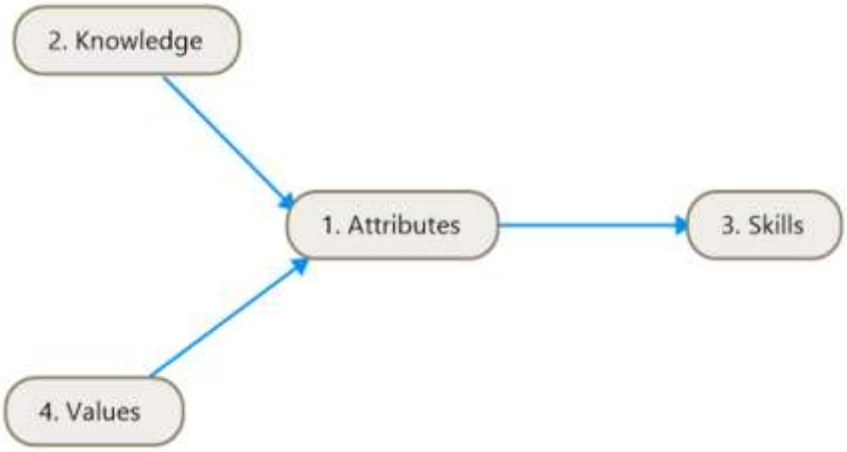

Figure 5.5: Uncluttered SID: Focus Group 2

5.3 INTERPRETATION OF RESULTS

The final phase of IQA is the interpretation of the results or findings of the study. Robertson (2015:180) maintains that interpretation not only proceeds from the descriptions of the produced affinities but also from:

- the "judgments" of the cause-and-effect relationships among affinities and the system created by these judgments and;
- the mind maps or SIDs created by the constituencies.

Northcutt and McCoy (2004:344) emphasise that affinities may differ only in terms of:

1. The elements or affinities of two systems either have the same or different meanings.
2. The kind of affinities: Northcutt and McCoy (2004:344) argue that an affinity, while presenting a specific category of meaning, is by no means fixed or static in the sense that it is experienced in the same way by all constituents of a constituency. They continue that elements that have the same meaning may have a different timbre or feel between constituencies, between an individual and a constituency, and between different individuals. Northcutt and McCoy (2004:345) explain that the term "timbre" in relation to an affinity could be described roughly as being equivalent to a value in relation to a variable in quantitative data. They suggest that timbre is the characteristic of an affinity. It has a range (the structural feature of the affinity) that might be experienced either positively or negatively by different people. The timbre is, therefore the range or

feel of the affinity. Northcutt and McCoy (2004:345) maintain that there are three kinds of affinities:

- Affinities are described by constituents in terms of functional or *structural* features.
- Affinities can also attend to the value component rather than the structural feature. Descriptions of *scalar* affinities are usually short and do not require a long list of sub-affinities, while the range of expressions for scalar affinities vary from one extreme to another.
- Affinities can also be *dialectic*. The dialectic of an affinity is seen as "the dynamic interaction of opposites". If one opposite ceases to exist, the other also vanishes and it is no longer relevant. For example, if confusion vanishes, so does the cognitive reaction of learning or growth (Northcutt & McCoy, 2004:345).

3. Systems may also differ or be the same in the manner in which the affinities connect.

The next section compares the affinities created by the two focus groups.

5.3.1 Comparing affinities

Robertson (2015:180) maintains that an interpretive interrogation of affinities comprises the following two questions:

1. What kind of affinities make up the system, and what does this mix imply?
2. How do the affinities compare across constituencies or to what extent are the elements of the systems the same or different?

Northcutt and McCoy (2004:346) suggest that constituencies, when presented with the same issue statement, will construct either the same set of affinities or different sets.

The affinities generated by the two constituencies were reflected in Table 5.2 of this chapter. It represents what the constituents in the two focus groups believed were critical competencies that needed to be considered in the design of a specialised undergraduate degree in risk management in South Africa.

The naming and placing of affinities differ between the two constituencies. The difference is a manifestation of how constituents who are further away from the phenomenon yield greater power over the phenomenon, while constituents who are closer to the phenomenon have less power over it. The constituency with greater power over the phenomenon has been referred to as Focus Group 1 and consists of academics teaching risk management at public universities in South Africa. They are responsible for the designing and development of qualifications. They are, however, not involved in the daily management of risk in organisations, and are therefore further away from the actual competencies required by and educational needs of the risk practitioners. Focus Group 2 consists of risk practitioners. Constituents of this group perform risk management functions and tasks as part of their daily routines, and are thus close to the competencies required and educational needs of risk practitioners, but have no power (play no role) in the design and development of risk management qualifications at universities.

The two focus groups identified similar elements but differed in the description and naming of the affinities. Focus Group 1 named the affinities per functional areas, such as the risk management process, corporate governance, financial knowledge, people management skills, business management skills and technical skills. In contrast, Focus Group 2 named the affinities per generic competency classifications of knowledge, skills, attributes and values.

Attributes were listed as an affinity by Focus Group 2 to describe the inherent qualities, features or characteristics that the typical risk manager should have. Focus Group 1 did not suggest a separate affinity for attributes. Specific personality traits, such as “strong leadership”, and “problem-solver”, were included under the affinity *Technical Skills,* while being a “critical thinker” was included under the affinity *Understanding Governance and Compliance* by the constituents of Focus Group 1.

Business management skills was an affinity suggested by Focus Group 1. The affinity of *Business management skills* describes the business ensuring sustainability, including economic, environmental and social sustainability, while organising people, processes and systems to meet the expectations of stakeholders. Focus Group 2 did not suggest a separate affinity for *Business management skills* but listed some elements of business management, such as “project management”, “accounting knowledge”, “knowledge of operational management, processes and

analysis", and "business acumen" under the affinity *Knowledge.* Focus Group 2 also included "management skills", under the affinity *Skills*.

Although Focus Group 1 named the affinity *Business management skills,* knowledge of specific business management functions such as "training management", "change management", "project management", "human resource (HR) management", "quality management", "stress management" and "business communication" were listed by respondents.

Focus Group 1 identified and named *Financial knowledge* as an affinity. *Financial knowledge* was identified as an affinity to describe the knowledge needed in terms of finance, economics and statistics. Constituents of Focus Group 2 did not create a separate affinity for financial knowledge but listed elements of financial knowledge such as, "knowledge of financial reports", "administrative tasks", "budgeting, planning and reporting", "value creation/money and results", "economic background", "accounting and finance", "maths/quantitative skills", as elements of the affinity *Knowledge*.

Understanding governance and compliance was an affinity proposed by Focus Group 1. Constituents identified *Understanding* g*overnance and compliance* as an affinity to describe the language of governance and compliance. Focus Group 2 did not suggest a separate affinity for corporate governance and compliance but included aspects related thereto under the affinity *Knowledge*. They included knowledge of "industry-specific legislation and regulations and standards, such as ISO31000", as aspects of governance and compliance.

People management skills was an affinity suggested by Focus Group 1. This affinity described the skills needed by the risk manager to facilitate the risk management process across the enterprise, more specifically, the skills needed in the interaction with people across the enterprise. Focus Group 2 did not identify people management skills as a separate affinity but included knowledge of "human nature" under the affinity *Knowledge. "*People skills" were further identified as an element under the affinity *Skills* by Focus Group 2. The constituents of Focus Group 2 described the affinity *Skills* as the main abilities a risk manager should have that would make him or her more effective and efficient in performing his or her tasks.

Knowledge of the Risk management process was listed as an affinity by Focus Group 1. Constituents identified *Knowledge of the risk management process* as an affinity to describe the importance of an understanding of the risk management process, entailing the identification, evaluation and mitigation/control/management of risk. Focus Group 2 did not identify a separate affinity for the risk management process but included components of the risk management process under the affinity *Knowledge,* which was described by Focus Group 2 as the theoretical foundation that a risk manager needs in the performance of his or her everyday tasks. The risk management aspects that were included under *Knowledge* were “having a risk background and understanding”, “knowledge related to the development of risk reports and risk registers”, “ERM theory”, “risk integration”, “application of risk across functions such as finance, HR and economics”, knowledge of key concepts, such as “appetite and culture”, the ability to distinguish between the “risk hat versus the business hat”, being a “subject matter expert”, “industry knowledge”, “environmental scanning”, “understanding innovative disruption, for example, crypto-currencies and social networks”, and developing of risk management documents, such as “policy, strategy, plan and methodology”.

Focus Group 1 approached the affinity *Knowledge of the risk management process* from a more academic angle, focusing on general risk management knowledge and classifications of risks. Focus Group 2 included more practical aspects of risk management under the affinity *Knowledge*. This suggested that the differences did not lie in the elements of the system but in the timbre of the elements.

Technical skills was an affinity suggested by Focus Group 1 to describe the secondary skills needed by a risk manager that would make him or her more effective and efficient in performing their tasks as a risk manager. Focus Group 2 did not suggest a separate affinity for technical skills. They included similar elements to those listed by Focus Group 1 under the affinity *Technical skills,* under the affinity *Skills.* The affinity S*kills,* as suggested by Focus Group 2, is, therefore, a broader affinity and includes aspects of management skills, people skills and technical skills.

Values were identified as an affinity by Focus Group 2 to describe those aspects that guide, steer and motivate your actions. The constituents of Focus Group 1 did not identify *Values* as a separate affinity. The value elements of “integrity”, “ethical conduct” and “respect”, grouped under the affinity *Values* by constituents of Focus

Group 2, were included under the affinity *People skills* by constituents of Focus Group 1.

From the above comparison, it is clear that there was a relatively high level of agreement on the competency elements that were identified, but that the grouping and naming of affinities by the two focus groups differed. Constituents of both groups considered knowledge and skills as two primary areas of competence for current and future risk managers. The two groups, however, took a different approach in the grouping of elements and naming of affinities.

Focus Group 1 distinguished between different areas of knowledge by creating separate affinities for *Risk management* and *Governance and compliance*. Group 2 created one affinity for *Knowledge* and included risk management, business management and governance and compliance-related aspects under the broader *Knowledge* affinity. The same applied to *Skills*. Focus Group 1 distinguished between *Business management, Technical* and *People skills*, while Focus Group 2 included aspects of business management, technical, and people skills under the broader *Skills* affinity. Focus Group 2 also created separate affinities for *Attributes* and *Values*. Focus Group 1 grouped related elements under different affinities, as indicated.

Northcutt and McCoy (2004:347) point out that where differences in the perceived elements are not found in the elements of the system, they could be found in the timbre of the elements, or how the elements are connected. In the next section, the relationships among the affinities are explored in a comparison of the composite SIDs that were created by the focus groups.

5.3.2 Comparing systems

Of the two focus groups, Focus Group 2 produced the simplest SID. The uncluttered SID is illustrated in Figure 5.4. The SID is linear with no feedback loops and cannot be zoomed out any further. The Primary Drivers are knowledge and values. The constituents in Focus Group 2 did not see any link between knowledge and values. They, however, believed that both knowledge and values drive the formation of attributes. They indicated that attributes are needed to develop the necessary skills

needed by a risk practitioner to manage risk effectively. Skills were considered the Primary Outcome by Focus Group 2.

The uncluttered SID for Focus Group 1 comprises six affinities and contains one feedback loop as illustrated in Figure 5.2. “Technical skills” was considered to be the Primary Driver by the constituents of Focus Group 1. “Governance and Compliance” was considered the Primary Outcome. “People management skills” and “Business management skills” were considered Secondary Drivers, while the “Risk management process” was considered a Secondary Outcome. “Financial knowledge” is the pivot point and has no relationship with “People management skills”.

From a theoretical perspective, governance and compliance are considered to be a component of risk management (as indicated in Chapter 2). Technical, business management and people management skills can all be grouped as skills. Under this scenario, a zoomed-out view of the SID for Focus Group 1 can be produced, as depicted in Figure 5.6.

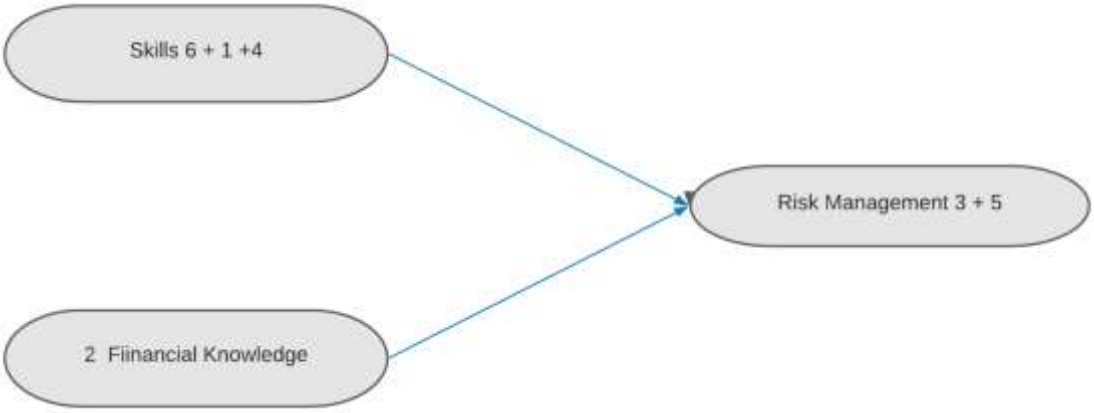

Figure 5.6: Zoomed-out view of the SID for Focus Group 1

The differences in the systems presented by the two focus groups indicate that the two groups have different opinions regarding the relationships among the identified affinities.

Focus Group 1, comprising of academics teaching risk management at public universities, considered the development of skills (business management, people management and technical skills) and financial knowledge as driving forces in the development of potential risk management practitioners, who will, with the right

knowledge of risk management and compliance, be able to deal with the challenges of risk management in organisations.

The constituents of Focus Group 2, comprising of risk management practitioners, considered the development of skills as the primary outcome of a possible specialised risk management undergraduate degree. They considered knowledge and values as primary drivers in the development of the attributes needed by risk practitioners. Potential risk management practitioners with the right knowledge, values and attributes, will be able to learn and develop the necessary skills to equip them to deal with the challenges of risk management in an organisation.

5.4 SUMMARY

This chapter focused on the description, analysis and interpretation of the results and findings generated by the IQA study. The affinities generated by the focus groups were described, and a composite list of affinities was created for each focus group. The relationships between the affinities were described using the words of the constituents. The SIDs of the two focus groups were compiled, discussed and compared.

Although the affinities identified by the two constituencies have been labelled differently, they also differed in terms of how the affinities contribute to competency. However, what they do have in common is that risk managers' competency is not exclusively about knowledge, but also about skills, values and attributes. This finding needs to be taken into account in the design of a specialised undergraduate degree in risk management.

The next chapter presents the conclusions and recommendations and highlights possible implications concerning the design of a specialised undergraduate degree in risk management.

CHAPTER 6:
SUMMARY, CONCLUSIONS AND IMPLICATIONS

6.1 INTRODUCTION

Risk management is becoming an increasingly crucial managerial function to ensure organisations' sustainability and resilience amid an increasingly complex and volatile global business environment. Events such as the attack on the Twin Towers (9/11), the financial crises during 2008/2009, and the Covid-19 pandemic have elevated the need for risk management as a discipline, and competent and professional risk practitioners in the workplace.

Risk management has evolved from a mere technical function that focused on managing downside risks, insurance buying and compliance, to a corporate function responsible for managing the total risk portfolio, focusing on both the upside (opportunity) and downside of risks to the organisation in an enterprise-wide and holistic manner.

Risk management is becoming increasingly important, as the complexity of the risk landscape continues to increase. Organisations adopt the Enterprise Risk Management (ERM model) to manage risks in an integrated and holistic fashion to achieve the objectives of the organisation. For ERM to be effective, it needs to be embedded in the organisation's processes, aligned with the organisation's strategy, and driven by a Chief Risk Officer (CRO), Risk Management Committee or risk management expert.

The responsibilities and focus of risk managers have shifted from pure/hazard risks and financial risks to a broader perspective that includes operational, enterprise and strategic risks. The profile of risk managers and the position of the CRO in organisations have become more prominent over the past few years, and this has led to questions on the competencies that such an individual(s) should possess. Risk professionals at all levels of the organisation need to develop the necessary competencies to deal with the ever-increasing risks and expectations of organisations, regulators and professional bodies.

Universities play a significant role in providing the education that will equip current and future risk managers to effectively manage risks in their organisations. Increasingly, a bachelor's degree, or higher qualification in risk management or a related field, is specified as a requirement for the risk manager position in organisations. Despite debates among academics and risk professionals concerning risk management education needs, no study has previously been done to determine which competencies need to be addressed in a specialised undergraduate degree in South Africa. This study aimed to address the problem and lay the foundation for further research in curriculation by determining the competencies required by risk practitioners in the South African context.

Risk management is not a settled science yet, and much research still needs to be done. This study aims to contribute to risk management by first determining the competencies required by risk managers and CROs, and secondly, to consider the implications of such competencies by suggesting possible subjects/modules for inclusion in the design of a specialised undergraduate qualification in risk management.

This chapter will firstly, provide a summary and overview of the study. Secondly, the main conclusions and recommendations related to the risk competencies that should be included in the design of a specialised undergraduate degree in risk management will be presented. Thirdly, the contribution of the study to the body of knowledge will be presented. This chapter will conclude with a discussion of the implications and limitations of the study.

The next section will provide a summary of the research study.

6.2 SUMMARY OF THE STUDY

This study was conducted in the context of the unique and challenging risk and educational environment of South Africa. The increasing importance and changing role of risk management in proactively dealing with risks were examined in Chapters 1 and 2.

Chapter 1 provided an overview of the literature, highlighting the ever-changing and increasingly complex nature of risks, and the elevated role that risk management plays in organisations. It was shown that the efficient management of risks depended

on the competence of employees working in the risk management field. The role of universities in producing skilled, competent and flexible individuals was highlighted. A gap between the trends in and educational needs of the risk profession and the qualifications currently being offered by universities in South Africa was identified. The research question, subsidiary research questions, research objectives, research methodology, ethical considerations and limitations of the study were formulated and discussed in this chapter.

Chapter 2 added context to the research question and comprised a review of the relevant literature on risk and risk management. The chapter provided an overview of the historical evolvement of risk management from a traditional, silo-based approach towards a more holistic and enterprise-wide (ERM) approach. In this chapter, the importance of Governance, Risk and Compliance (GRC) and Strategic Risk Management (SRM) as components of ERM was highlighted. Industry standards, such as ISO31000 and other literature resources, were used as a foundation to discuss the principles of risk management, the risk management framework and the risk management process.

Chapter 3 provided additional context to the research question and comprised a review of the relevant literature on the role and function of the risk practitioner, competency as a concept, and specific risk management competencies. The chapter concluded with an overview of risk management competency models, frameworks and standards compiled by international risk management professional bodies.

Chapter 4 focused on the research design of the study and provided details on IQA, as a research methodology to gather and interpret data.

Chapter 5 presented and described the constituents' affinities, analysed the relationships among the elements of the systems, developed focus group composites, created group composites (IRDs), and focus group System Influence Diagrams (SIDs). The chapter concluded with the interpretation of the results.

The next section provides a brief overview of the study.

6.3 OVERVIEW OF THE STUDY

This section provides a brief overview of this study in terms of the research questions and objectives.

6.3.1 The research question

Chapter 1 presented a discussion of the gap that has been identified between the trends in and tertiary education needs of the risk management profession, and the degree offerings at universities in South Africa. The research question was formulated as: *What are the risk management competencies that should be covered by a specialised undergraduate degree in risk management?*

In support of the primary research question, three subsidiary questions were formulated:

1. What competencies (including knowledge, skills, attributes, values and attitudes) are needed by risk practitioners to enable them to meet the risk management challenges in South Africa?
2. To what extent do the perceptions of academics teaching risk management and risk practitioners correspond or differ in terms of the competencies identified?
3. Based on the identified competencies, what are the implications for a proposed specialised undergraduate degree in risk management?

Concerning the research problem, this study aimed to accomplish specific research objectives. These objectives are briefly discussed in the next section.

6.3.2 The objectives of the study

The primary objective of this study was to identify and analyse the competencies that should be covered in a specialised undergraduate degree in risk management. The secondary objective was to consider the implications of such competencies in the design of a specialised undergraduate degree in risk management. In the section below, the results and conclusions of the study will be linked to each of the objectives.

6.3.2.1 Primary objective

The primary objective of this study was to identify and analyse the competencies that should be covered in a specialised undergraduate degree in risk management.

The literature reviews in Chapters 2 and 3 provided context to the research question of this study. Chapter 2 focused on the evolvement of risk management towards ERM, and risk management standards as a guideline for risk management

principles, frameworks and processes. Chapter 3 highlighted the role of the CRO/risk manager and identified and analysed the risk management competencies derived from the literature. The competencies identified in the literature are summarised in Table 6.1 below.

Table 6.1: Risk management competencies identified in the literature

Competency	Reference
Core competencies, including business insight, ethics/integrity, communication, collaboration and consultation (RIMS:2017)	RIMS(2017) AIRMIC (2020)
Attributes The Risk and Insurance Management Society (RIMS) described attributes as those qualities, characteristics and behaviours that, when displayed, will assist risk management professionals to get things done in areas where they do not necessarily hold direct responsibilities.	RIMS(2017)
Knowledge of business, including Finance	Louisot (2003) Caldas (2016) Harvey (2021) Hopkin (2018) MARM (2017) RIMS(2017) PARIMA (2018) IIRSM AIRMIC (2020)
Knowledge of risk management	Louisot (2003) Caldas (2016) Korn Ferry (2019) Hopkin (2018) MARM (2017) RIMS(2017) PARIMA (2018) IIRSM AIRMIC (2020)
Organisational knowledge, including knowledge of market and industry	Louisot (2003) Caldas (2016) Harvey (2021) IIRSM RIMS(2017)
Technical Skills – both risk technical and management skills	Harvey (2021) Leaver and Reader (2016),

Competency	Reference
	Watson (2014) MARM (2017) Hopkin (2018) RIMS (2017) PARIMA (2018) IIRSM ERMA (2010-2021)
Leadership/ behavioural, people skills and relationship skills	Louisot (2003) Caldas (2016) Korn Ferry (2019) Harvey (2021) Watson (2014) MARM (2017) AIRMIC (2020) IIRSM
Judgement and decision-making	Harvey (2021) PARIMA (2018)
Learning agility	PARIMA (2018)
Strategic thinking capability/ critical evaluation/ agility	Caldas (2016) Korn Ferry (2019) Harvey (2021) PARIMA (2018) IIRSM
Adherence to regulation	Caldas (2016)
Communication/presentation skills/influencing	Caldas (2016) Harvey (2021) Watson (2014) MARM (2017) PARIMA (2018) IIRSM
Political skills, including influencing	Watson (2014) Korn Ferry (2019) Hopkin (2018)
Ability to work under stress	Caldas (2016)
Influencing	Watson (2014)
Soft skills/non-technical skills	Hopkin (2018)
Data management	IIRSM

Source: Author's own composition

From the above summary, it can be concluded that there is relative consensus in the literature on the importance of risk management and business knowledge and the related technical skills, as essential competencies needed by risk managers to effectively manage risk. There is also consensus about the importance of soft skills in the overall management of risks. Although there are differences in the manner in which different authors and professional bodies group/classify softer skills, there is general agreement on aspects such as communication, strategic and critical thinking, leadership, and relationship skills. The risk management competencies identified in the literature formed the theoretical reference from which conclusions were made regarding the competencies needed by risk managers.

Chapter 4 focused on the research methodology used to achieve the primary objective of the study. The study followed a qualitative approach and used Interactive Qualitative Analysis (IQA) as the research methodology. Two focus group interview sessions were conducted, using constituents from two different constituencies. Focus Group 1 comprised of academics teaching risk management at public universities in South Africa, while Focus Group 2 comprised of risk management practitioners in South Africa.

Chapter 5 reported the results of the two focus group interview sessions and compared their results. The constituents of Focus Group 1 identified six affinities or groups of competencies, namely, Business management skills, Governance and Compliance, Financial knowledge, Risk management process, People skills and Technical skills. The constituents of Focus Group 2 identified four affinities or groups of competencies, namely, Attributes, Knowledge, Skills and Values.

The study found that the two groups listed similar elements of competencies, however, they differed in the grouping and naming of the affinities/ classification of the competencies. This feature corresponded with the trend that was identified in the literature review in Chapter 4, where it was found that authors, in general, agreed on the specific competencies but differed in the grouping or naming of these competencies. There were thus commonalities in terms of the identified competence elements, but differences in the naming and categorising of the elements.

The commonalities can be used to create a composite table of competencies that could serve as a guideline for the design of a specialised undergraduate degree in

risk management for South African universities. To align the set of competencies identified by the focus groups with the competencies identified in the literature, the "Knowledge" affinity created by Focus Group 2 was divided into "Business knowledge" and "Risk management knowledge". The composite list of affinities is reflected in Table 6.2.

Table 6.2: Risk management competencies: A South African perspective

Competency	Elements	Notes by researcher
Attributes	▪ Protect and serve ▪ Professionalism ▪ Working in a team and individually ▪ Can-do attitude ▪ Open to new ideas and ways of working ▪ Creative, flexible and adaptable ▪ Think outside the box ▪ Business partner ▪ Courageous conversations ▪ Leadership ▪ Business-minded (K) (E) (S) ▪ Aggregation (bring together) ▪ Expression ▪ Not just pot-hole reporter ▪ Informed (Social) ▪ Be able to challenge ▪ Solution-based analysis ▪ Dedicated ▪ Strategic thinker ▪ High conceptual ability ▪ Informed decisions ▪ Assertiveness (not be easily swayed) ▪ Attention to detail ▪ Aptitude for technology (tools) ▪ Network ▪ Innovator (K), (S) AND (V) ▪ Adaptable to change – move with the times ▪ Strategic thinker ▪ Critical analyses ▪ Critical thinker	The following aspects were included under the affinity "Business management skills" by Focus Group 1 but can be facilitated under the affinity "Attributes": ▪ Analytical ▪ Proactive ▪ Prudence ▪ Holistic view ▪ Visionary ▪ Futuristic

Competency	Elements	Notes by researcher
Business knowledge	The following aspects of business knowledge were included under the affinity "Business management skills" but can be facilitated under Business knowledge": ▪ Understand corporate structures ▪ Understanding the organisation's environment ▪ Knowledge about organisation workings ▪ Training management ▪ Change management ▪ Project management ▪ Business communication ▪ Quality management ▪ Business background ▪ Strategic, strategy ▪ Business management ▪ HR management	The following aspects of business knowledge were included under the affinity "Knowledge" by Focus Group 2 but can be facilitated under the affinity "Business knowledge": ▪ Money and results/ Accounting and Finance ▪ Accounting knowledge ▪ Financial reports ▪ Project management ▪ Administrative tasks i.e. budget and planning and reporting ▪ Specific knowledge of operational, management, processes and analysis ▪ Business acumen (understanding basics)
Risk management knowledge	▪ Knowledge of risk aspects in an organisation ▪ Understanding of different risks ▪ Understand the risks faced by the organisation ▪ Expert in enterprise risk management ▪ Liability insurance ▪ Polymath ▪ ID future risks ▪ Credit risk ▪ Commercial insurance ▪ Personal insurance ▪ ART – Alternative Risk Transfer Techniques ▪ Financial engineering ▪ Market risk ▪ Operational risk ▪ Maintenance management ▪ Security management ▪ Project risk ▪ Safety, health and environment ▪ Supply chain risk	The following aspects of risk management knowledge were included under the affinity "Knowledge" by Focus Group 2 but can be facilitated under the affinity "Risk management knowledge": ▪ Risk background and understanding ▪ Development of risk reports and risk registers ▪ ERM Theory ▪ Risk integration ▪ Environmental scanning ▪ Application of risk management across functions such as finance, HR, economics ▪ Key concepts: thresholds i.e. appetite and culture ▪ Subject matter expert ▪ Risk hat versus business hat ▪ Standards such as ISO ▪ Industry knowledge ▪ Good all-round knowledge of IT and IT landscape ▪ Understanding of innovative disruption, for example, crypto-currencies and social networks ▪ Development of risk management

Competency	Elements	Notes by researcher
	▪ Reputational risk ▪ ICT risk	documents such as policy, strategy, plan, methodology
Governance and Compliance knowledge	▪ Understand legislation ▪ Relationship management ▪ Work well with regulators ▪ King IV ▪ Focussed on institution's goals ▪ Basic understanding of Corporate Law ▪ Commercial Law ▪ Critical ▪ Governance ▪ Understanding corporate governance ▪ Understand compliance ▪ Understand the compliance requirement ▪ Look for the positive in dealing with risk	Focus Group 2 listed "Industry-specific legislation and regulations" under the broader "Knowledge" affinity, but it can be facilitated under the affinity "Governance and compliance". In Chapter 2 it was indicated that governance and compliance is a component of risk management. It could, therefore, have been facilitated under the "Risk management knowledge" affinity. This would also be in line with the classification used by professional bodies in their competency models. For this study, it was, however, maintained as a separate affinity.
Financial knowledge	▪ Budgeting ▪ Probability theory ▪ Financial accounting ▪ Financial management ▪ Financial background ▪ Knowledge of the global economic and political environment ▪ Forecasting ▪ Knowledge of mathematical decision-making models ▪ Econometrics ▪ Numerical skills ▪ Numerate skills ▪ Knowledge of economic and political environment (domestic) ▪ Stats	This affinity was identified by Focus Group 1 as a separate affinity. It includes all aspects related to finance, economics and statistics. The following aspects of financial literacy were included under the affinity "Knowledge" by Focus Group 2 but can be facilitated under the affinity "Financial knowledge": ▪ Value creation ▪ The value of data ▪ Research ▪ Maths skills(Quantitative skills) ▪ Qualitative and quantitative ▪ Economic background ▪ Data scientist
Business management skills	▪ Managerial skills ▪ Business development skills ▪ Adaptable to change – move with the times ▪ Strategic thinker ▪ Strategic, strategy ▪ Manages stress effectively	Focus Group 1 created the affinity "Business management skills". The following elements listed under the affinity "Business management skills" could be facilitated under the affinity "Business knowledge" and were moved to the "Business knowledge" affinity: ▪ Understand corporate structures

Competency	Elements	Notes by researcher
	▪ Analytical skills ▪ Analyser ▪ Analytical ▪ Proactive ▪ Prudence ▪ Holistic view ▪ Visionary ▪ Futuristic	▪ Understanding the organisation's environment ▪ Knowledge about organisation workings ▪ Training management ▪ Change management ▪ Project management ▪ Business communication ▪ Quality management ▪ Business background Business management ▪ HR management The following aspects were included under the affinity "Management skills" but can be facilitated under the affinity "Attributes": ▪ Analytical ▪ Proactive ▪ Prudence ▪ Holistic view ▪ Visionary ▪ Futuristic
People management skills	▪ People skills ▪ Diplomacy ▪ **Respect** ▪ Understanding human behaviour ▪ Care ▪ Mature ▪ Positive ▪ Focus ▪ **Ethical** ▪ **Integrity** ▪ Manages conflict effectively ▪ Facilitator ▪ Motivator ▪ Negotiator ▪ Mentor ▪ Managing organisational culture ▪ Trust ▪ Loyalty ▪ Creativity	Respect, ethics and integrity corresponded to elements identified by Focus Group 2 and included under the affinity "Values" Knowledge of human nature identified by Focus Group 2 under the affinity "Knowledge" can be facilitated under the affinity "People management skills"

Competency	Elements	Notes by researcher
Technical skills	▪ **Strong leadership skills** ▪ **Leader** ▪ **Leadership.** ▪ **Good leader** ▪ **Team player** ▪ Writing skills ▪ Strong research skills ▪ Problem solver ▪ Problem-solving ▪ Report writing skills ▪ Report writing ▪ Think outside the box ▪ Computer skills ▪ Computer literate ▪ Systems skills ▪ Systems knowledge ▪ Organisational skills ▪ Good communication skills ▪ Ability to communicate ▪ Communication ▪ Presentation skills	The highlighted elements under the affinity “Technical skills” created by Focus Group 1 correspond with elements listed by Focus Group 2 under the affinity “Attributes” and can be facilitated under the latter affinity. Focus Group 2 included the following elements under the affinity “Skills”. These elements show some resemblance with the elements listed under the affinity “Technical skills”, and can therefore be accommodated under the latter affinity: ▪ Supportive ▪ Benchmark ▪ Presentation – develop and deliver ▪ Writing ▪ Reporting writing – dashboard ▪ Maintain calm and give clear guidance ▪ Prepare to learn (practical) ▪ People management ▪ Management ▪ Not just tick-box ▪ Backward and forward-looking ▪ Timelines/relations ▪ Advisory ▪ Critical thinking ▪ Investigate (dig deeper/ deep-dive) ▪ Enquiring ▪ Systems thinking ▪ Proactive ▪ Business analyst ▪ Initiative ▪ Training skills ▪ Liaison (interaction) between different lines of defence (3 LOD) ▪ Negotiation ▪ Knowledge transfer skills ▪ Organising ▪ Analysis/Interpretation ▪ Analytical ▪ Persuasive ▪ Verbal and written communication

Competency	Elements	Notes by researcher
		▪ Process ▪ Prioritisation ▪ Draw comparison – inside and outside the business ▪ Various methods of facilitation ▪ Problem-solving skills
Values	▪ Integrity ▪ Ethical conduct ▪ Respect ▪ Accountability	This affinity was created by Focus Group 2 and was described by constituents as a "total relationship act with integrity".

Source: Author's own composition

The composite list of competencies was used to answer the third secondary question: "Based on the identified competencies, what are the implications for a proposed specialised undergraduate degree in risk management?". This question will be attended to in Section 6.5.2.

The relationships between the identified competencies were used to compose a systems diagram for the two focus groups. The two systems differ substantially. The academics believed that financial knowledge and skills, including technical, people and business management skills, needed to be developed to support the efficient management of risk management, and governance and compliance. The risk practitioners, on the other hand, believed that attributes are influenced by both knowledge and values and that the combination of knowledge, values and attributes should yield a risk manager with the appropriate skills to manage risks effectively.

A possible explanation for these differences could be attributed to the distance from and power over the research phenomenon. Academics have power over the design of qualifications and approach the design of qualifications from an academic perspective, and concentrate on the question: "What should the student know?" Risk practitioners, on the other hand, approach competencies from a functional perspective, concentrating on the question: "What should the risk practitioner be able to do?".

Chapters 3 and 5 answered the first subsidiary research question, namely, what competencies are needed by risk practitioners to enable them to meet the risk management challenges in South Africa?. Chapter 5 answered the second

subsidiary research question, namely, to what extent do the perceptions of academics teaching risk management and risk practitioners correspond or differ in terms of the competencies identified?.

6.3.2.2 Secondary objective

The secondary objective was to consider the implications of the identified competencies in the design of a specialised undergraduate degree in risk management. This aspect will be addressed in Section 6.5.2.

6.4 SYNTHESIS OF THE STUDY

The study contributes to the existing body of knowledge concerning risk management competencies. It adds value by providing a South African perspective on risk management competencies. Using the identified competencies in the design of a specialised undergraduate degree in risk management will close the gap between the educational needs of the South African risk management profession and the qualifications offered at universities in South Africa. A specialised undergraduate degree in risk management will serve as an underlying qualification for the risk management profession, guiding the career path of the risk professional in South Africa.

The results of this study can further serve as the foundation for the design of a competency framework or model to serve the risk profession in South Africa.

This study is therefore of significance to professional bodies, business organisations, HEIs, and current and future risk managers in South Africa and across the African continent. The outcome of the study will assist HEIs in the design of a specialised undergraduate degree curriculum in risk management that is relevant and in line with the needs of the risk management profession, thereby ensuring the graduateness of students in this particular field.

Students in this field of study will be able to gain the necessary competencies to ensure that they are employable and can attain success in this field of management. Organisations will benefit through the provision of risk practitioners who have the necessary competencies to manage the risks of the enterprise in a holistic and enterprise-wide manner, thereby enhancing the value of the organisation.

6.5 THE IMPLICATIONS OF THE STUDY

This section considers the implications for the risk management industry and the teaching and learning of risk management. It also considers the social implications and the implications for research.

6.5.1 Implications for industry

This study found that many of the international risk management professional bodies have developed competency models to describe the competencies needed by their members to perform their risk management tasks and activities. These models further outline the knowledge, skills and behavioural attributes that are essential for risk professionals to succeed and contribute to their organisations in a meaningful way.

The results of this study can therefore serve as a guideline for the Institute of Risk Management South Africa (IRMSA) and other professional risk management institutes in Africa, to develop their own contextualised Risk Management Competency frameworks or models.

6.5.2 Implications for teaching and learning

As far as teaching is concerned, the literature and the findings of the focus groups point to a combination of Business Management and Risk Management as the majors for a specialised undergraduate degree in risk management. The implications of the identified competencies required by risk managers for a specialised undergraduate qualification in risk management are summarised in Table 6.3 below.

Table 6.3: Implications of competencies required of risk managers for an undergraduate qualification

Competencies	Suggested subjects/modules that may address the competency
Business knowledge	▪ Business Management, including business models and the following functional areas: – General management – Marketing – HR management – Financial management – Supply chain management – Operations management ▪ Strategic management

Competencies	Suggested subjects/modules that may address the competency
	▪ Financial accounting
Financial knowledge	▪ Economics ▪ Information Technology ▪ Data management ▪ Statistics ▪ Research methods ▪ Data and information science ▪ Decision sciences/modelling **Note by the researcher:** Constituents of Focus Group 1 created and named this affinity. Under this affinity, they included all aspects regarding finance, economics and statistics, including numerical skills. This affinity could have been named differently as it might create some confusion in terms of curriculum design. A more descriptive name for this affinity could be “Financial literacy, modelling and insight”.
Risk management knowledge	▪ Risk Management, including: – Enterprise risk management – Strategic Risk Management – Risk Assessment – Risk Mitigation – Risk Financing and Insurance management – Operational risk management – Credit risk management – Financial (market) risk management – Environmental risk management – Information security risk management – Alternative Risk financing – Reputational risk management – Safety Management – Global risk Management
Governance and Compliance knowledge	▪ Modules covering legislation and regulations relevant to the risk management profession ▪ Insurance Law ▪ Corporate Law ▪ Regulatory principles of KING IV ▪ Commercial Law ▪ Governance, Risk and Compliance Management
Attributes	▪ Business leadership development ▪ Psychology
Values	▪ Business ethics

Competencies	Suggested subjects/modules that may address the competency
	▪ Code of ethics
People skills	▪ Industrial Psychology ▪ Business Communication ▪ Industrial Sociology
Technical skills	▪ Project management ▪ Writing and Presentation skills ▪ Information technology ▪ Relevant modules from Computer Science
Managerial skills	▪ Business Administration ▪ Change management ▪ Quality Management

Source: Author's own composition

6.5.3 Social implications

The findings of this study serve as a starting point for the introduction of a specialised undergraduate degree in risk management at universities in South Africa. Despite the requirements of the South African Qualifications Authority (SAQA) and the Council for Higher Education (CHE), this study demonstrated that there is a need for a specialised undergraduate degree in risk management to meet the need expressed in the literature, as well as by professional risk managers in South Africa.

The implication for public policy is that SAQA and the CHE should reconsider their rigid stance about the composition of specialised qualifications, and should rather allow for a more achievable range of subjects from the field of specialisation to be included in the curricula of specialised degrees. As indicated by this research, a combination of subjects from different disciplines is required to enhance the competencies and employability of risk management graduates (Marx & De Swardt, 2020:113).

6.5.4 Implications for research

The unique contribution of the current research was the innovative use of IQA for data collection, due to the removal of subjectivity and the introduction of rigour in analysing and presenting the results. The results serve as a starting point or foundation for the design of a specialised undergraduate degree in risk management that will meet the requirements of the profession and equip students with the best

possible combination of knowledge, attributes, values and skills needed by the risk management profession (Marx & De Swardt, 2020:113).

The implications for further research is that a study of the design, benchmarking and validation of a curriculum framework for a specialised undergraduate degree in risk management could be conducted.

6.6 LIMITATIONS OF THE STUDY

The research is limited to risk practitioners and risk educators from the risk industry and academia at public universities in South Africa. The study is limited to the identification of risk management competencies that should ideally be covered in the design of a specialised undergraduate degree in risk management. The actual design of a curriculum did not form part of this study.

A further possible limitation of this research lies in the use of focus group interview sessions only to collect data. The IQA process makes provision for focus group interview sessions and individual follow-up interviews to verify and clarify the data collected. It was considered unfeasible to conduct individual interviews due to time and resource constraints. This limitation was overcome by emphasising detail in the description of data during the focus group sessions, and using focus group constituents from different constituencies, chosen in accordance with their distance from and power over the research phenomenon. A comparison between the perceptions of the two groups to determine their differences and commonalities was deemed sufficient to meet the research objective.

6.7 CONCLUSION

This study addressed the gap between the educational needs of the risk management profession at the tertiary level and the lack of specialised undergraduate degrees in risk management at universities in South Africa. To accomplish the primary and secondary objectives of the study, an extensive literature review of the risk management discipline, the role and function of the risk practitioner and risk management competencies was conducted. A qualitative study, using focus group interview sessions, as part of an IQA methodology, was conducted to determine the competencies needed by risk practitioners in South Africa. The results of the study can be used by universities in South Africa to develop

specialised risk management degrees as part of the career path development of risk professionals.

The introduction of specialised undergraduate degrees in risk management at universities in South Africa will contribute significantly to reducing the shortage of competent risk managers in South Africa, given the escalating importance of the risk management function in ensuring sustainable and resilient organisations in an increasingly complex risk environment.

“With risk management being identified as a scarce and critical skill, as well as an occupation in high demand, it is crucial that the industry produces highly competent professionals and inspires more young people to take up this profession in order to contribute meaningfully to their country, organisations and the profession. The right training therefore becomes key” (IRMSA, 2021:85).

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APPENDIX A:
ETHICAL CLEARANCE CERTIFICATE

UNISA university of south africa

COLLEGE OF ECONOMIC AND MANAGEMENT SCIENCES
RESEARCH ETHICS REVIEW COMMITTEE

25 June 2015

Ref #: 2015_CRERC_024(FA)
Name of applicant: Ms Cecilia de Swardt
Staff #: 1999729

Dear Ms Cecilia de Swardt

Decision: Ethics Approval

Name: Ms C de Swardt, dswarcj@unisa.ac.za, 0798811400

Prof Johan Marx, marxj@unisa.ac.za, 012 429 4513

Proposal: A CRITICAL ANALYSIS OF RISK MANAGEMENT DEGREE CURRICULA IN SOUTH AFRICA

Qualification: Non-degree research output

Thank you for the application for research ethics clearance by the College of Economic and Management Sciences Research Ethics Review Committee for the above mentioned research. Final approval is granted for the duration of the project.

For full approval: *The revised application was reviewed in compliance with the Unisa Policy on Research Ethics by the CRERC on* ***19 June 2015.***

The proposed research may now commence with the proviso that:

1) *The researcher/s will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.*
2) *Any adverse circumstance arising in the undertaking of the research project that is*

University of South Africa
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Rubric

relevant to the ethicality of the study, as well as changes in the methodology, should be communicated in writing to the CRERC.

3) *An amended application could be requested if there are substantial changes from the existing proposal, especially if those changes affect any of the study-related risks for the research participants.*
4) *The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study.*

Note:
The reference number **2015_CRERC_024(FA)** should be clearly indicated on all forms of communication [e.g. Webmail, E-mail messages, letters] with the intended research participants, as well as with the CRERC.

Kind regards,

Prof JS Wessels
Chairperson of the CRERC, CEMS, UNISA
012 429-6099 or wessejs@unisa.ac.za

Prof R T Mpofu
Acting, Executive Dean: CEMS

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V4

TITELWYSIGING
AMENDMENT OF TITLE

Student	MRS CJ DE SWARDT	Student No	0796 5230

Graad/Degree	M COM

U aanbeveling ten opsigte van die volgende voorgestelde gewysigde titel asseblief
Your recommendation regarding the following proposed amended title please

Titel/Title: **A critical analysis of Risk Management degree curricula in South Africa**

Vorige titel/voorlopige titel/onderwerp:
Previous title/provisional title/topic:

Die bepaling van opleidingsbehoeftes vir risikobestuurders in Suid Afrika

Handtekening/Signature: Mwswarat Datum/Date: 13/7/2015

Vir goedkeuring namens UKK asseblief
For approval by ECC please

Handtekening/Signature: Datum/Date:

Voorberei deur:
Prepared by: _____ Bylyn Ext _____ Datum Date: _____

APPENDIX B:
THE CURRENT STATE OF RISK MANAGEMENT EDUCATION AT PUBLIC UNIVERSITIES IN SOUTH AFRICA

There are currently 26 public universities in South Africa. These institutions are classified as traditional universities (offering theoretically-orientated university degrees), universities of technology (offering vocational-orientated diplomas and degrees) and comprehensive universities (offering a combination of both types of qualifications). The table below summarises the different public universities according to this classification.

Traditional universities	Comprehensive universities	Universities of Technology
▪ University of the Western Cape (UWC) ▪ University of Cape Town (UCT) ▪ **University of Pretoria (UP)** ▪ University of Stellenbosch (US) ▪ University of North West (NWU) ▪ University of Free State (UFS) ▪ **University of the Witwatersrand (WITS)** ▪ University of Kwazulu-Natal (UKZN) ▪ University of Fort Hare ▪ Rhodes University (RU) ▪ University of Limpopo (UL) ▪ **Sefako Makgatho Health Science University (SMU)**	▪ **University of South Africa (UNISA)** ▪ **University of Johannesburg (UJ)** ▪ Nelson Mandela Metropolitan University (NMMU) ▪ Walter Sisulu University (WSU) ▪ University of Zululand (UNIZULU) ▪ University of Venda (UNIVEN)	▪ Central University of Technology (CUT) ▪ **Tshwane University of Technology (TUT)** ▪ Vaal University of Technology (VUT) ▪ University of Mpumalanga (UMP) ▪ Sol Plaatjie University (SPU) ▪ Cape Peninsula University of Technology (CPUT) ▪ Durban University of Technology (DUT) ▪ Mangosuthu University of Technology (MUT)

Source: brandsouthafrica.com/governance/education/universities

The universities are spread between the different provinces in South Africa as follows:

Province	Universities	Number of students
Gauteng	UNISA UP UJ WITS SMU TUT	400 000 50 000 48 500 32 703 5 060 50 000
North-West	NWU	74 355
Kwazulu-Natal	UKZN UNIZULU DUT MUT	40 000 16 100 25 000 10 000
Freestate	UFS CUT	33 000 13 534
Limpopo	UL UNIVEN	20 000 12 000
Mpumalanga	UMP	140
Western Cape	UCT US UWC CPUT	26 322 30 150 15 200 33 000
Eastern Cape	RU FORT HARE NMMU WSU	7 000 12 000 26 000 25 000

Source: https://businesstech.co.za/news/general/101412/here-are-south-africas-26-universities

The websites of the different universities were accessed to determine whether bachelor degrees, specialising in risk management, were offered. Although the focus of this study is on an undergraduate bachelor degree, any other risk management qualifications offered were also included in the results of this investigation. The following universities offer bachelor degrees, specialising in risk management:

University	Current qualification(s) in risk management
University of North West Studies.nwu.ac.za/studies/e-yearbooks-2019/EMS-UG.pdf Studies.nwu.ac.za/studies/e-yearbooks-2019/EMS-PG.pdf Studies.nwu.ac.za/sites/studies-nwu.ac.za/files/files/yearbooks/2019/NW-PG.pdf	**Offered by the School of Economics:** ▪ B Com in Economic Sciences: Economics and Risk Management ▪ B Com in Economic Sciences: Agricultural Economics and Risk Management ▪ B Com (Hons) in Economic Sciences: Risk Management ▪ Master programmes in Risk management and Applied Risk Management respectively **Offered by the Faculty of Natural Sciences:** ▪ B.Sc in Quantitative Risk Management ▪ Post Graduate Diploma in Disaster Management ▪ M.Sc in Risk Analysis ▪ M.Sc in Business Mathematics and Informatics with Qualitative Risk Management ▪ PhD in Science with Disaster Risk Science ▪ PhD OF Philosophy in Science with Risk Analysis
University of the Witwatersrand https://www.wits.ac.za	**Offered by the Faculty of Commerce, Law and Management:** ▪ B Com in Insurance and Risk Management ▪ B Com in Economic Science majoring in Actuarial Science ▪ B Com (Hons) in the field of Business Science (Insurance). ▪ M Com in field of Business Science (Insurance and Risk Management) Risk Management modules are also offered as part of the MBA and other post-graduate qualifications.

Very few universities currently offer a dedicated bachelor degree specialising in risk management. This is in line with the concerns expressed in Chapter 1 of this study. Some of the universities offer risk management modules as part of a diverse number of qualifications. This is indicative of the silo approach towards risk management education as mentioned in Chapter 1. Universities that offer risk management as part of another qualification are as follows:

University	Qualifications
University of South Africa https://www.unisa.ac.za	No information on a bachelor degree specialising in risk management could be found. The following risk management modules are offered as part of a number of undergraduate qualifications in different schools in the **Faculty of Economic and Management Sciences:** ▪ Enterprise risk management ▪ Operational risk management ▪ Risk financing and short-term insurance ▪ Risk management: Long-term insurance **The university also offers a Postgraduate Diploma in Risk Management with the following modules:** ▪ Operational risk management ▪ Governance, risk and compliance management ▪ Risk financing ▪ Credit risk management ▪ Market risk management **In addition, the following Short Learning Programmes in risk management are offered:** ▪ Programme in risk management NQF6 ▪ Advanced programme in risk management NQF7 ▪ Short course in applied risk management which is a research-orientated course. NQF7
University of Free State https://www.ufs.ac.za	A third-year module on Risk management in Banking is offered as part of the B Com with specialisation in Economics and B Com with specialisation in Investment management and banking. On a postgraduate level the following

University	Qualifications
Note by Researcher – A recent search of the website (2021) picked up a result for a B Com in Risk Management. Subjects are generic and include accounting, Management and Actuarial sciences-related subjects. https://sastudy.co.za/course/bcom-in-risk-management/	qualifications are offered by the UFS Business school: ▪ Certified Fraud Examination Qualification ▪ Master of Business Administration with Risk management as module. A Short Learning programme in Enterprise Risk Management is also offered.
University of Pretoria https://www.up.ac.za	No bachelors' degree specialising in risk management. The following risk management modules are offered as part of a diverse number of qualifications in different Faculties: ▪ Financial Risk Management ▪ Enterprise Risk Management ▪ Mine Operational Risk Management ▪ Quantitative Risk Management ▪ Decision Analysis and Risk Management
University of Stellenbosch https://www.us.ac.za www.masterstart.com/risk management/online-course	No bachelor degree specialising in risk management. Modules on Financial Risk Management are included in the curriculum of the B Com Economic Sciences, B Com Mathematical Sciences and B Com Actuarial Science degrees. At the post-graduate level, a B Com (Hons) in Financial Risk Management is offered. Financial Risk Management modules are also offered as part of Post Graduate Diplomas in Actuarial Sciences and Business Management respectively. A module on Risk management in Development Finance Institutions as offered as part of the Post Graduate Diploma in Development Finance. A module on Project Risk Management is offered as part of the Post Graduate Diploma in Project Management.
University of Johannesburg	**College of Business and Economic** Information could not be found on a

University	Qualifications
www.uj.ac.za/studyat UJ/Documents/UJ Post graduate Brochure.pdf www.uj.ac.za/faculties/cbe.../UJ-BM-CEP-Brochure 2019.ONLINE.pdf www.uj.ac.za/faculties/law/Documents/Compliance Management.pdf www.uj.ac.za/faculties/cbe/johannesburg-business-school/Pages/Risk Management.aspx	bachelor degree specialising in risk management. The following short courses are offered in risk management by the college and business school of the university: **Johannesburg Business School:** ▪ Short Course in Risk Management ▪ Short Course in Risk Management for SMEs **College:** ▪ Higher Certificate in Business Management: Risk Management ▪ Advanced Certificate in Business Management: Risk Management **A postgraduate qualification is offered by the Department of Finance and Investment Management:** ▪ B Com Hons in Quantitative Finance **Short courses in Risk Management are also offered by the Faculty of Law in:** ▪ Compliance Management ▪ Corporate Governance Framework ▪ Enterprise-wide Risk Management Framework ▪ Regularity Framework ▪ Compliance Risk Management Framework
University of Cape Town https://www.uct.ac.za	**Faculty of Commerce.** ▪ No information on a bachelor degree specialising in risk management could be found. Risk management is not indicated as an area of specialisation by the faculty. ▪ The following online short courses are offered by the African Institute of Financial Markets and Risk Management (AIFMRM) which forms part of the Faculty of Commerce: ▪ Business Risk Management

University	Qualifications
	▪ Advanced Business Risk Management ▪ Foundations of Financial Markets in South Africa AIFMRM also offers a MCom in Risk Management of Financial Markets. The main focus of the qualifications is Financial risk management.
Walter Sisulu University https://www.wsu.ac.za	**Faculty of Commerce and Administration:** No information on a bachelor degree specialising in risk management could be found on the website. A module on Disaster and Risk Management is offered as part of a B Admin (Hons) degree.
Nelson Mandela Metropolitan University https://www.mandela.ac.za	No information on a bachelor degree specialising in risk management could be found on the website. **Department of Business Management** A Risk management module is offered on NQF6 as part of undergraduate qualifications in internal auditing and business management. Health and Safety and Risk management modules are offered by the **Department of Construction Management and Quantity Surveying** in their qualification.

The following universities have no information on any risk management qualifications or risk-specific modules according to the information contained in their 2019 yearbooks:

- Tshwane University of Technology
- University of Kwazulu-Natal
- University of Western Cape
- Rhodes University

- University of Fort Hare
- University of Limpopo
- University of Zululand
- University of Venda

APPENDIX C:
COVER LETTER AND CONSENT FORM

Dear Colleague

CONSENT TO PARTICIPATE IN RESEARCH

You are invited to participate in a research study conducted by Cecile de Swardt, Lecturer in Risk Management and Insurance of the Department of Finance, Risk Management and Banking at Unisa. The results of the study will contribute towards her M Com dissertation.

1 BACKGROUND AND PURPOSE OF THE STUDY

South African firms face an increasingly risky environment, placing risk management firmly in the spotlight. The quality of risk management in an organization depends heavily on the competence among the employees working in the risk management field. The role Higher Education plays in qualifying students for the risk profession is an important issue that concerns the future of risk management. A gap between trends in the risk industry and risk management education offered by universities and business schools was identified in the literature. It was observed that while organisations and industry bodies are moving towards a more holistic approach to risk management in the form of ERM, providers of risk management education continue to focus on traditional segmental risk management curricula by concentrating on insurance, financial engineering, security and environmental silos.

Against this background, the research question for this study is:

What are the risk management competencies that should be covered by a specialised, bachelor degree in risk management?

The primary objective of this study is to determine the risk management competencies that should be considered in the design of a specialised undergraduate degree in risk management. It is hoped that this study might contribute towards the development of a specialised bachelor degree qualification in

risk management that will align risk education with trends in the risk management industry and provide the educational foundation of current and future risk practitioners in South Africa.

2 METHODOLOGY

An Interactive Qualitative Analysis (IQA) research methodology will be use to determine the competencies that should be considered in the design of a specialised undergraduate degree in risk management. IQA, as defined by Northcutt and McCoy (2004:299), is a qualitative data-gathering and analysis process that depends heavily on group process to capture a socially constructed view of respondent's reality. IQA is a system-based qualitative methodology grounded in the systems theory and uses an interpretive approach by means of identifying and conducting focus group interviews and individual interviews, with these different groups or constituencies, to gain an understanding of an identified problem. Two focus group interview sessions will be conducted. Group 1 will comprise of risk management lecturers from public universities in South Africa. Due to cost and logistic reasons, only university lecturers from public universities in Gauteng, were invited. Group 2 will comprise of risk practitioners in South Africa. Should the results dictate the use of individual interviews, participants may be requested to participate in individual interviews.

3 POTENTIAL RISKS AND DISCOMFORTS

Participants will not be identified or identifiable in the reporting of the aggregated results and any follow-up interviews will occur with the assurance of confidentiality.

4 POTENTIAL BENEFITS TO SUBJECTS AND OR SOCIETY

This study will be of significance to enterprises, providers of higher education and students. The outcome of the study will assist higher education providers to design a curriculum for a bachelor degree in risk management that is relevant and in line with the needs of risk management practitioners, thereby ensuring the graduateness of students in this particular field. Students in this field of study will be able to gain the necessary competencies to ensure that they are employable in this management field. Enterprises will benefit through the provision of practitioners that will have the necessary knowledge to manage the risks of the enterprise in a holistic and enterprise-wide manner.

5 REMUNERATION FOR PARTICIPATION

No payments for transport, accommodation or participating in the Focus Group workshop will be made.

6 CONFIDENTIALITY

The anonymity of participants will be protected and no names will appear in the research report. Informed consent will be obtained from respondents where direct quotations are made in the report. The study will be conducted in line with the ethical guidelines for research prescribed by UNISA.

7 PARTICIPATION AND WITHDRAWAL

You are invited to participate and have the option to accept or decline. Should you accept the invitation, you may withdraw at any time from the focus group interview without any consequences of any kind. You may refuse to answer any questions during the focus group interview and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant this action.

8 IDENTIFICATION OF INVESTIGATORS

The focus group interview will be conducted by Mrs Cecile de Swardt. Dr Ruth Albertyn, will act as Facilitator during the focus group workshop. For any enquiries or concerns about the research, please feel free to contact Prof Johan Marx at marxj@unisa.ac.za or 082 883 1772.

9 RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent to participate in this study or discontinue your participation, at any time without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have any enquiries with regard to your rights as research subject, you may contact Prof Annemarie Davis, Head of Research, Faculty Economic and Management Sciences (CEMS) at Unisa, at davisa@unisa.ac.za

10 CONSENT TO PARTICIPATE IN THE ABOVE RESEARCH

I, _____ (Name of participant) hereby acknowledge the aforementioned information and consent voluntary/do not consent to participate in this study.

_____ Date: _____

Signature of Participant

APPENDIX D:
TRANSCRIPTIONS FOCUS GROUP 1

The whole range of which everybody has put down collectively … clusters.

•

There is one positive, adaptable to change, move with the times. Is that actually two concepts?

•

One.

•

So that is one. So we are happy that is one. Ethical? If you see something that has been duplicated, exactly the same word, then you can just remove it. There is leader and work? Leader. I am keeping those at the moment. Leadership skills … for later. Ok, ethical. Problem-solver. Leadership skills communication skills. Financial background. Business background. Analyser. Next one. Focus on institution goals. Basic understanding of corporate law. Caucus. Understanding of different risks. Critical thinker. Understand corporate governance. Strategic i.e. Future risks. Look for the positive in dealing with risk. Work well with regulations.

•

Regulators.

•

Understand the compliance requirements.

•

Is it compliance?

•

Yes.

•

Communication. Knowledge of risk aspects within organizations. Team player. Leader. Is this 2 concepts?

•

Yes.

•

Ok, let me write another one so you got 2.

•

Well, we got leader many times.

•

So let me make it just team player.

•

So just take leader out and make it team player.

•

Think outside the box Colleague? Maths?

•

What is that?

•

Tell me more?

•

It goes across disciplines.

•

Ok, disciplinary …

•

Ok, is everybody with that now? So we know when we want to faced it? Managerial skills. Presentation skills. Understand the risks. Fancy… the organization. Relationship management. Trust… and enterprise risk management. Holistic view. Knowledge about the organisation workings. Understand corporate structure. Ability to communicate. Understand corporate governance. Understand compliance. Numerical skills Knowledgeable. Understand legislation. Training management. Chance management. Critical thinking and analysis.

•

Thinking as well.

•

Yes, analysis and thinking. That needs scrapping out. Manages conflict effectively. Manages stress effectively. A go getter. Pro-active. Report writing. Problem-solving. Prudence. Security management. You know what prudence mean? Prudence? You would like to explain? What is the collective understanding of prudence?

•

Playing safe.

•

Playing safe.

•

But then you cannot be a go-getter.

•

We are not discussing the pros and cons of the different concepts. We say, what do you understand by it? Playing it safe.

•

Being conservative.

•

Being conservative. Playing it safe. Security management. Strong leadership skills. Computer literate. Somebody else … somewhere? Management skills. Analytical as we said before. Research skills. Commercial law. Maintenance management. Systems skills. Respect. Governance. Good communication skills. Analytical skills. Understanding the organization's environment. Budgeting and forecasting. That 2 separate or 1?

•

I think they are separate.

•

Then just maybe add another one please. And then just remove one. Stats. Is stats and probability theory 2 separate things?

•

Probability theory is one of the components of the field of statistics. But I feel that probability theory is the important part … not just giving all various things.

•

Separate? Same? Give another one to me? Are you adding the extra one? Ok, managing organizational culture. Hr management. Writing skills. Care. Business management. Again computer skills. Financial accounting. Financial management. Liability insurance. Commercial insurance. You all are obviously comfortable with that. Understanding human behaviour. Diplomacy. You understand what we mean by this?

•

I say understand human behaviour is a bit difficult.

•

I think that is possible.

•

Okay, leadership. Analytical, operational risk. Safety, health and environment. Supply chain risk. Project risk. Reputational risk. ICT risk. Credit risk. Business communication. And there is forecasting. Loyalty. Futuristic. Strategy. What do we mean by futuristic? Do you know what we mean by this?

•

Yes, it is forward looking and see what the future will look like in 10 years time from now. To anticipate what the environment and what people and systems and technology would look like in the future.

•

I think it goes with that, forecast.

•

Ok, we will talk about that later. Strategy. Market risk. Pro-active. Creativity. Management. Visionary. People skills and integrity. We started where we ended.

•

Full circle.

•

So now you have seen the range of all of what all of you have collectively put out there. First thing which I want you to do, is if there are complete duplications, like integrity and we can just put it on top of each other. We do not need to have 2. So go through, sort out things where they duplicate.

•

Leader

•

There is leader. Analyse.

•

Here is analytical.

•

Almal wil analytical wees. [Everyone wants to be analytical.]

•

Is it just if it is the same word?

•

Only the same word. Only a duplication. Not concepts that are similar. The contents must stay intact.

•

Strategic?

•

Strategy. Strategy is different to strategic.

•

I think it is the same.

•

Hang on, not you. What is the group there? Is strategic the same as strategy?

•

Yes.

•

Why not me?

•

No, the group needs to decide. Just the group needs to decide.

•

Strategic and strategy is the same thing.

•

Yes.

•

In other words, evaluating you, what are your strengths, weaknesses and opportunities and threads.

•

Sit hom bo daardie een. [Put it above that one.]

•

Are the group happy that leader and leadership are the same?

•

Same. The end is the same.

•

The context is leadership.

•

So at the moment, all we do, is we are taking away duplicates. Collapsing duplicates. Anything more on communication?

•

Government

•

The strategy one.

•

I remember something about governance.

•

Numerical.

•

We first have to look at the spelling.

•

This is communicate. Is there communication somewhere?

•

Yes. There. Systems skills.

•

I just want to find out, governance and corporate governance?

•

I think this side is definitively ….there is knowledge.

•

How do you feel about the word focus? Focus on the goal?

•

Ok, we want for the moment want to look at the duplicates. So just the duplicates to get rid of them. Communications skills

•

There it is. Computer literacy. Computer skills

•

Here is one that says knowledge.

•

Understanding.

•

Let us just keep that.

•

It is more the direct duplication. Ok, I think let us leave that now. We are going to start splitting, it is just the duplicates. Now, what I want you to do, I want you to start as a group and you are allowed to come, this is you analysing this. How would you as a group and as an individuals cluster these at a logical components? … we can see that certain things can cluster together. So it is a free for all. If Soná does not agree with Erika who wants to move the stuff, it does not matter. Start moving the stuff around so that you can actually say, this stuff belongs together. This stuff belongs together into clusters. So I am completely standing back now. You can disagree with each other. You move your own stuff around. You decide what you think the organization should be. You as a group to describe. If somebody has to say to you, you have now all piece this together. In one paragraph, if you have to write down, how would you describe this risk management process. Look at the parts/ that are here and as a group, tell other people who are coming in here for the first time, what is happening. What do you need. How do you see the risk management process. Then we are going to say, ok, you have identified financial knowledge as being an important thing which that person as a mr? prm? Whatever. What characteristics. What competencies. You have said financial knowledge. How would you in a nutshell explain what this group came out with, looking at this. You have said they need to have business management skills. . These are the things you came up with. Give us your 3 sentences. Governance, compliance, what do you mean by that? People management skills, technical skills. We are basically summing up, in a nutshell, what do you mean by each of those things. The tape recorder is up.

•

Within the individual framework if we want to employ a person as skills, now we want to look at this person's skills then in relation to that. That is what you mean?

•

Yes.

•

Because if we can have a discussion on risk management process

•

By itself

•

Which is in isolation to the skills of this person.

•

Yes.

•

So I think it is very important to keep … because we had that conversation, you know what financial skills are necessarily to … company. But is it the person you want to employ. What skill does he need?

•

I just want to add something.

•

What is it that you want to add? Your issue statement, was would you want an ideal person to look like.

•

Yes, I just want to contribute something.

•

Yes.

•

Obviously it is going to be at tertiary, where you develop a tertiary qualification here, but a lot of those skills that risk management need, only come over time. It comes after 10 years of experience or 15 years in the field.

•

But how do you train that person to be able to have the competencies 10 years down the line to be able to do their job? Or would you say anybody will get the experience when they are in the field?

•

That is a difficult question. That is where maturity comes in and working in different environments and getting your work experience. You cannot obviously take somebody cold out of university and say, you are the risk manager of the company. Let us be honest.

•

Remember, this is an entry qualification. So it is an underlying qualification?. It is a B? degree. So you need to skill?/screen? People who come from school, this is a nice degree, I want to go into risk management. So where do they start?

•

Sure.

•

So you have to get people and that is the criticism that people are, there is no … coming in, because they either have to do a post graduate to go into the course or they have to do a certificate which is again very silo? Based. So the purpose of the study is to at the end only look at only a B degree. Not a honours degree or a you need to get a person in there, like a

B.Com. Then when they do B.Com Accounting, you are not going to be an accountant when you walk out there. You got sufficient knowledge To get additional skills. What is the purpose of this? I think if you look at employ someone, it would depends on what level. Obviously you need to communicate, facilitate?, … a bit of an enterprise if you want to appoint someone from university, what would you like to see in there. I do not know if it answer your question. What was the question again?

•

My question was, original issue was, what skills do we need for this person. We then drifted off into discuss this process which is a completely different conversation. So if we now give a summary of what we want. What is the summary of the skills the person needs or the different processes? We can have a long conversation on the process.

•

I think it is basically if you look at risk management skills, obviously it is going to be very wide. We need to know different types of risks. So he has to have a very good knowledge of the types of risks and the whole risk management process to be able to facilitate.

•

So that is what I said. That is the sort of answer. The person you got to look at must know the risk management process. So part of the educational process is to teach him that process. Does that mean he must be able to do all those things? I do not think so. Can you go and do safety, training, quality? Insurance, auditing, Buy insurance. Place insurance. That is only part of it. No, he is not going to do it, but he must understand that all is going to happen. So we got to get the conversation back to what skills we think this person needs to have. I mean if you ask me to start off, he has to got to understand the risk management process. It is the one you got which is the one you got, … finance, insurance, self funding?, all of those things. The limitations of them. So part of this thing would be the risk management process. .

•

So can that be the first sentence.

•

There is a problem touching on it, but you do not have to touch on it. …bits. If you say, ok, I want to put this into a degree. Then the moment/ you say you want to put this into a degree, you already pass for yourself another question. Where in the university? In the Medical Faculty? No. In the Law Faculty? In the Stats Faculty. So the moment you say it is going to be in this faculty, you are already limiting where your conversation is going to be. So you cannot say in this faculty I am going to use all the Sciences. Everything that … Science. … General Science. If you say I am going to teach you anything about insurance law, so you can understand the policies, then it is in the Law Faculty. So already in which faculty you are putting it, is limiting your conversation by that. Then the other part of the conversation we have not drawn on, for example, we got … probability. So it is part of the existing body of

knowledge. So we cannot say we are going to get this person and he is going to create a new body of knowledge school from probability? Theory. You are putting in this faculty and from which other faculty are you going to draw the skills? We got a lot about financial skills. Where are you going to get that. He need to do accounting you know. So that is already an existing discipline. So really, we are going to put this person in who needs those skills and these are the skills we are going to draw from the existing body of knowledge. We are not going to create new bodies of knowledge. Then you will find your conversation gets limited, it is limited quite severely. I do not want to confuse, but

•

I think if you look at the background, it is about enterprise management. Your typical risk chief officers are not risk managers. They actually oversee, to facilitate in the process. That makes him, his base has to be very broad. He cannot have only risk management skills. He has to have people skills. He has to have and I think that came out of the conversation, that he has to have certain skills. Because you cannot facilitate if you do not understand what each risk is. You cannot facilitate if you do understand models. You cannot facilitate if you do not have…You cannot facilitate if you do not understand how a business is structured, big environments? Surrounding it, corporate governance. So I think all of those things, it became a managerial function … that we went to the literature rather than a specialist. If you are looking for a specialist, your whole skill level would be totally different. If you look for an operational risk manager, you would have a totally different skills level. If you look for a financial risk manager, or you are looking for a safety manager, a health and safety officer, those are the specialist areas. I think that is why we limit it to the specific enterprise risk manager, because that is the first? Person? In the literature that we are not looking at enterprise risk management, … our courses. We are looking at risk specialists. Trying to form a specialist. A … person or a mathematical person and they … side, which is fine, because, as a specialists this person has to get the knowledge from …that is why communication skills in this list, is extremely important, because he has to convince the other person in those team, run the whole process, and then report to the board?. So he is actually trying to manage, facilitates.

•

No, I agree with you.

•

So that is where we are coming from. It is not from the specialist risk manager. It is from the enterprise wide risk manager that has to facilitate risk.

•

If you remember …came from her, a company wants to implement an enterprise risk management approach and they want to appoint an future enterprise risk manager and I said to you, just brain storm, what competency skills, attributes, attitudes do they need and this is what you came up with. And this is the logic that you have clustered. So I want you

now, if there is something coming from outside, tell them what do you mean, these are things that you put here together. What do you mean that this person needs to know about the risk management process, in 3 sentences.

•

So the first one is basically they need to have an understanding of the overall risk management process.

•

Yes.

•

It is to identify risks, evaluate risks and to mitigate risks. That is the 3 steps of the process.

•

Great. Anybody wants to add anything? Does that cover?

•

Identify risks, evaluating and to mitigate, manage.

•

Do you want that manager then in that process, so he has to got to facilitate the systems of the whole enterprise?

•

But that links with the framework and employer …

•

… part of that mitigating is quite important, is to make a distinction between what is insurable and not insurable. So that mitigation, he is not going to go there and believe he can do things without saying, we know, because part of that we can transfer the risk, but the other part of it we cannot transfer. So part of that mitigation is a clear understanding of that. So mitigate by itself, has 2 layers and he has to do both those steps.

•

I agree.

•

Thank you. It has been put together in a nice nutshell. Are you in agreement with this?

•

Sorry, I just want to add one thing. That he must be able to do that across the enterprise. So it is not in a silo, so right across the enterprise. Because that is what has happened with Kim?2 …regulations of insurance …across the enterprise.

•

I think this is also coming in with that. Poli? Mass?, that overall business and not just the overall business, but seeing the future business. , because I think the future business is also an important thing, that currently it is changing so much. The risk we thought, half of it, is not really the most important ones anymore.

•

Yes, especially now with all the disruptions and terrorism … those kind of things.

•

Yes.

•

There are risk that are developing over time.

•

So you must be able to adapt.

•

How futuristic/ risk management process, I cannot read there, so.

•

…futurists.

•

Okay, so let us move on to this one.

•

So, sorry, last one, being able to adapt. I see futurists.

•

Ok, so we are saying that the ideal enterprise risk manager should have financial knowledge. How do you describe that?

•

That is about assessing the probability and and/on? Of the severity of risks and the risk manager must be able to understand the financial consequences if any of these risks materialises and the impact they will have …

•

The impact they will have on the company's financial balance sheet, annual financial statements. Is it going to cause a loss? Is it going to cause a loss from the balance sheets? Things like that.

•

… and be able to survive…

•

Which means you need to have a fairly good knowledge of accounting. In other words, you cannot have that conversation with the board. Saying I do not know what a balance sheet is.

•

So is the financial knowledge the right heading for that? It describes all of that cluster?

•

Yes.

•

Yes, because this is your finance, economics, your statistics basically.

•

I would move that probability just underneath it. So to understand the financial statements, implication, having 2 things in mind.

•

Go to the right at the top.

•

Under financial knowledge.

•

What impact will the severity have? What impact will the probability have?

•

Under financial heading.

•

So he is looking at the financial statements differently than a accountant. In his mind there are 2 elements. Probability and severity and when they come into play, what is going to happen to the income statement and the balance sheet.

•

Opportunity.

•

I think that is where financial knowledge differs from auditing knowledge. They also have financial knowledge, but they do not look at the balance sheet in the same way as the risk manager do.

•

Yes.

•

I do not know how we can bring in the auditing profession, because they just need to see if they

•

Apply.

•

The auditing would play a big role.

•

Do you want to add anything there?

•

I think with governance and compliance you can bring the auditing in.

•

Ok, so let us move on to this one. They need to have business management skills. How would you describe in a paragraph what you mean by business management skills.

•

Business is a going concern. And so what you have to do, is understand the impact which severity… would have as a going concern. As it operates within the business.

•

Anybody wants to add?

•

Yes, major group is different functions, group is different parts. Also how is risk going to affect all the different parts. You need to understand how the company is managed.

•

One thing that stands out for me in business management, is that one thing it says here, is that one must have a holistic view of the organization and good understanding. U understand how the different business parts fits into the organization.

•

Do you not have under business management also training and hr management, because as a risk manager you have to see that there are actually people who actually execute the functions. You cannot do it on your own. So you have to train. He is training the …

•

Yes they are here and HR management.

•

The risk manager at that level got to sort? Everything.

•

But he has to got to understand the process.

•

It is all about insuring sustainability, meaning economic, environmental and social, by organizing people, processes and systems to meet expectations of stake holders.

•

That is nice.

•

A practical example of that is ARG insurance company. The world's largest insurance company. Extremely successful around the world. There is one tiny little unit in London which is ensuring financial risks. It is pulled down that entire group, just tiny little unit. Nobody knew what they were doing. When the financial crisis came, which was 30 40 trillion rand loss, that little company had ensured 30 trillion rand, … loss probably done. So the risk manager would never picked that up, because I need to understand how this whole group operates, because there might be something which is your point under holistic, because that little thing over there could be the cause of the problem we got and I knew it. So if you did not talk with the London unit, the London unit had PhD's from Harvard, Cambridge, but … next thing is wap, it pulled that whole company down.

•

I agree.

•

… engine …

•

Ok, let us move on. Governance and compliance. What do you understand this ideal person needs to do? What do you have knowledge of, governance compliance skills? Knowledge, what is it? If there is financial knowledge, risk management process, management skills, governance and compliance?

•

Ok, at a board level where he is going to report to, as the result of a whole lot of developments, in this country, King, Cadbury, risk management and compliance has become a board matter. So when he is reporting to the board, what the board wants to know, is that our governance systems are ok and we are complying with all the legislation. The answer to that one, is our risk management process takes care of it and our auditing process, internal and external, auditing. So he has to talk to that board through that

governance language. The governance and compliance language. That is what he is going to talk to

•

But what are we going to call that? Compliance knowledge or

•

Understanding.

•

Yes, understanding.

•

And also systems. The insurance company board? Notice? 158, that defines it. Have we complied with board notice 158.

•

Look at that. You are ahead of the market.

•

So to me that is the language of the board. That is the language the risk manager talks with the board. If he does not talk in that language, he might as well go home.

•

Would you agree to call it governance and compliance language.

•

I think people would know what that means.

•

Ok, the next one. People management skills.

•

Ok, that is a skill that he needs, because he himself will not do anything other than to facilitate this operation across the enterprise. He has to interact with a lot of people, all of whom are going to fight with him. So he is going to fix … and knowing how … person thing. That is not something you will pick up at university. That is a skill you need to pick up as you go along.

•

And how are you going to incorporate that into a degree?

•

True communications.

•

Yes, I think you can pick up business communication, industrial psychology. There are various ways of assisting the person in developing so that he will be able to understand people. Communicate and motivate and inspire them to create a safer working environment.

•

So they are modules.

•

Yes, students are very great when it comes to assignments. Reasons for why they are not handing them in.

•

But there is only one I do not agree on and this is a go getter. I do not think a manager is a go getter.

•

No. He is a facilitator.

•

A go-getter also implies he will take a short cut.

•

And he is going to take risks himself and he must actually manage the risk. I know what a go getter is like.

•

Ok, and the last one, technical skills. How do you describe that one?

•

You got technical skills other than understanding the risk management process.

•

Yes and also other than understanding the financial situation. So these are in addition to those ones.

•

Yes, we agree those are the right skills.

•

It is supportive skills more.

•

For me it is about making the individual more effective and efficient.

•

Yes, in performing his task as the risk manager.

•

So it is not primary skills. More secondary skills.

•

Okay, thank you very much.

APPENDIX E:
TRANSCRIPTIONS FOCUS GROUP 2

• Do you agree with the understanding of each of these 4 categories or groups?

•…or the content under the headings? Now I agree those are the 4 headings, labels.

•I think this one needs to move, attitude, can do with attribute.

•Working in a team?

•That is also an attribute.

•Also an attribute.

•… respect, integrity? Ethics? Is value systems. Those need to move I think. Attributes

•Working in a team and … attributes. Anything else… move to …

•We talk generally about values?. Things like honesty, trust… as general.

•Honesty and ethical.

•The problem lies with the word ethical, because what does the word ethical mean. Response, … those kind of thing.

•You can expand the word ethical into …

•I am, it just looks quite thin?.

•You went overboard on that side.

•Yes, I think you are right. This is a very incandescent kind of thing.

And expectancy.

Yes

… that

But you need to understand that if it was also very multi… as Mr Zuma … what is the word that we use, … it is such a Western concept. So we need to understand that.

What about accountability?

That is another story.

Yes, I agree with that.

…Process, must we pick up all the … or specific to

It comes out of risk? Perspective. We just need to make sure it is complete.

So the key perspective … Google?. Because then we defeat the purpose.

Then I would increase the pandemic? … think about it. … Accountability?.

If it is going to be a model?: about ethics, it will come out … everything.

Yes, I agree.

It is an individual? State.

So what you are saying, is …manage the … it is one attitude, ethical… … Ethical, honesty, integrity.

…with ethical.

That is correct.

That is a component?.

Yes If you want a good one

Okay., let us move on. The next one on attributes. Are you happy that the list is complete? That there is nothing here that should be in another category?

I question experience.

Yes.

Because you get the experience of the employee?

Which is the same as I think skills …

I think we should move this.

One of the other suggestions is that we move it to skills.

Something like … …

But we look at the curriculum for an undergraduate …

Fortunately the UNISA student would theoretically

Have experience while studying … benefit of

Well,

… like the whole Technikons … practical experience as well. Once you are finished with undergraduate, you do not have that kind of experience.

I Challenge the viewpoint here from appointing somebody in your position have we moved on from there, attribute.

Look just to answer these questions, is that some models have work integrated learning that is supposed to give them some exposure, not necessarily experience, to that field. But coming back to you, are we looking at a graduate you wish to employ which use to

Some exposure

Some exposure

Only in the workplace

Why do we do not say it is practical knowledge?

Practical education.

What is experience?

That is why I say, make it a practical

Is leadership an attribute?

I do not think so. That is a skill.

It is a skill.

I agree with you, but because … …

…I think it is a skill.

Leadership is a choice.

Leadership has something to do with there are certain people who are leaders.

Natural leaders.

… people leadership, but for what level … as far as risk? If there has to be some …

But that is why we have leadership consultants who think they can turn people who are not leaders into leaders.

Leadership is a choice. …

What I understand … subjective?.

… leader.

Well it is something that comes with a person. Some people are just natural leaders.

… better at what point would we say this is a strategy? Thing.

… come out …

It is a quality.

… it is subjective.

What I think, is bigger … another one not being like that. I am also questioning this attribute is not

Skills.

I think that is fine that they should be … down.

Attributes have more or less been described by these things …

Then skills, with what you got here. Anything that we need to remove?

Not just … again.

Not just tick box.

I think it is a person who does not just go for compliance. … Think in terms more of taking on more responsibility, more pro-actively.

Certainly.

What is the difference between management skills and people management skills?

Management skills do not necessarily involve people. It is also about processes and systems and policies and being able to keep more things aimed towards a specific goal. Whereas people is working as correctly said, working with individual and as well as with groups of people or teams and being able to be a people person that can really convince people to do things. To coheres them and convince them of things that need to be done and must be done kind of thing and not just being nice.

… and people orientated individuals. It is part of your clinical makeup.

But you see, that is two dimensional, dimensions of being a manager, is having both of those and not just one of the two. That comes in with your managerial skills. Okay.

If there is no protest against skills, let us come to the last one. Knowledge. Anything else we need to add or remove? Knowledge. I think you debated it quite well as you went along.

Then one last thing, activity that we need to do and how are you going to look at those and say, is there any relationship between this one and that one? Does this one influence that one? Or is it the other way round or is there absolutely no relationship?

Well the first thing we need to understand, is that there is no supposedly? Relationship. So it is not a c… F… relationship. It is an integrated relationship. The one feeds the one and the other one fed from the other one.

Okay, you are now individually going to complete this for us. I just need to show you something. Let us just make sure that we have the same understanding. So under values I am going to get them in alphabetical order.

A.

Let us start with the attributes. Knowledge, skills management? Values.

Okay, in 2 or 3 sentences describe for us what you understand under values.

The way you act as an individual.

What you hold, what motivates you. That guides, steers you.

Anything else in describing values for this cluster? Is it about behaviour that will make you behave with dignity and integrity?

I think it is important that we describe the co… relationship for if I act with integrity, I will continuously strive to increase my knowledge. By increasing my knowledge, I will influence my attributes. By influencing my attributes, I will acquire the skill.

That is the relationship we will do right at the end.

Values, it speaks behaviour, it speaks to judgement, it speaks to how you react …

… what you believe is the right thing. Do the right thing.

Okay, happy with the description of values?

Yes.

•Then you move on to attributes. 2 Or 3 Sentences. How would you describe or define attributes?

•Qualities.

•Qualities of the individual.

•What is qualities?

•I would say it is inherent abilities that you have.

•Yes.

•I think it is a characteristic.

•I think it is a better word than quality.

•Yes.

•Okay. Everyone happy with that?

•Then skills in 2 or 3 sentences? What do you think of describing skills?

•It is a practical … contributions.

•Why practical?

•…. Based on the level of their …

•Okay.

•Expertise, ability to do something well, based on knowledge acquired.

•I think it is the ability to apply practically what you have learned.

•…

•Do you still have something?

•no.

•Then we move on to the final one in 2 or 3 sentences. Knowledge.

•You google it.

•No.

•…very seriously. …. I allow open book exams if they quiet? Down? What is exactly the … formulation … google it.

•That we can discuss further. But knowledge, in 2 or 3 sentences in terms of knowledge. How do you see it?

•Knowledge is knowledge.

•Is it not the building blocks that you acquired and then to be able to apply…

•Theoretical tools.

•Okay, right so, final exercise. This is now where you are going to just look at those 4 … first of all, on the form, on the left hand? Side, you just need to write down in this alphabetical

order. Then the second part … you just indicate if there is any relationship between what you write here. If for example you feel that 1 influences 2, you will indicate it with an arrow coming from the left pointing to the right. If you feel there is no relationship between 1 and 2, you will just indicate it by means of … If you for example feel that 3 influences 1, the arrow will go that way. So this is just to show the relationship. That if there is any relationship. As I said, if you think there is no relationship, then you can use this. If you feel that 1 influences 2, then the arrow goes that way. If you feel for example that 3 influences 1, then you point the arrow towards the left.

•I have a problem. The relationship I see here, is not reflected on your library. Because I see that they all influence each other.

• Yes, they will, you will see on the form, 2, 1, 3, 4, 2,3. 2,4. So it is just a matter of looking at …the direction of the relationship and then to give it …for example of the relationship. In other words, if …values influences attributes, then it is if values display this, then it will lead to that and to improve that. So use that "if" then statement to get clarity about the relationship and the direction of their relationship.

APPENDIX F:
DECLARATION OF PROFESSIONAL EDIT

Retha Burger
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Independent Skills Development Facilitator

Dear Ms de Swardt

This letter is to record that I have completed a language edit of your dissertation entitled, "A qualitative study of the competencies that should be covered by a specialised undergraduate degree in risk management".

The edit that I carried out included the following:

-Spelling
-Grammar
-Vocabulary
-Punctuation
-Pronoun matches
-Word usage
-Sentence structure
-Correct acronyms (matching your supplied list)
-Captions and labels for figures and tables
-Spot checking of 10 references

The edit that I carried out excluded the following:

-Content
-Correctness or truth of information (unless obvious)
-Correctness/spelling of specific technical terms and words (unless obvious)
-Correctness/spelling of unfamiliar names and proper nouns (unless obvious)
-Correctness of specific formulae or symbols, or illustrations.

Yours sincerely

Retha Burger

4 March 2021