



**Management perceptions of executive risk
culture in a South African retail and business
bank**

OM Modisagae



orcid.org 0000-0003-1392-3915

Mini-dissertation accepted in fulfilment of the requirements for
the degree *Master of Commerce in Applied Risk Management*
at the North West University

Supervisor: Prof H Zaaiman

Graduation ceremony: June 2021

PREFACE

This mini-dissertation is the final deliverable for the Master of Commerce (MCom) in Applied Risk Management. The mini-dissertation was written in article format and consists of three sections: Research project overview; Article; and Reflection.

This mini-dissertation is the student's work. The student was responsible for the final concept, set up, execution of the research project and writing of the mini-dissertation. The members of the supervisory team contributed in an advisory and technical support capacity to study conception and design, analysis and interpretation of data and critical revision of the manuscript. The mini-dissertation was language edited before submission. However, the student is responsible for effecting the edits, and for the grammatical correctness of the document before hand-in.

The main study supervisor gave the student permission to submit this mini-dissertation for examination.

ABSTRACT

According to the Financial Stability Board (FSB), leaders in financial institutions play a pivotal role in setting the core values and expectations of their organisations' risk cultures. The FSB expects that these leaders ensure that this risk culture is understood and adopted, and that they communicate the importance of risk management through both their risk-related behaviour and the bank's management structures. This survey-based quantitative study aimed to provide a South African bank's executives with useful information to understand management perceptions of its executive risk culture, and suggestions on how to improve the bank's risk culture, by comparing senior and middle managements' perceptions of the executive risk culture at the bank. This study also tested the pilot version of a new risk leadership culture scale (RLCS), based on a risk-informed decision culture model. The scale measured two factors related to risk culture, namely, "perception of decision-focused executive risk leadership culture", and "perception of own contribution to executive risk decisions". Both management groups reported a largely positive view of the bank's executive risk culture. The study also provided the executive with valuable information on perceptions of their risk-related behaviour and of areas of risk culture that need attention. It furthermore adds to our knowledge of the link between risk culture and leadership messages in organisations, by providing leaders and risk practitioners in the financial services sector with suggestions on how to measure and improve their institutions' risk cultures, as part of their role to embed a positive risk culture in their businesses. Moreover, this study offers a novel academic view of the under-explored topical subject of the perception of risk leadership in banks, and demonstrates the value of using the RLCS, including initial suggestions on how to improve the scale.

Word count: 288

Keywords: risk leadership culture, executive leadership, risk communication, risk culture, financial sector, banks

ACKNOWLEDGEMENTS

I would like to thank:

- God as he is the creator of all things and for giving me the strength to complete this course (dissertation and coursework) within the prescribed time of two years.
- My husband, Thapelo Modisagae, for the support and encouragement during this period of writing my dissertation.
- My son and daughter, Mofenyi and Kganya Modisagae, for reminding me why I need to always do my best.
- My loving mother, Yvonne Ditshwene, for the teaching and lessons on the importance of education.
- My close family and friends, for their love and understanding during this period.
- The financial services environment in which the study was conducted and my line manager, Johan Moerdyk, for the constant support.
- To the bank's management teams, thank you for your support for this applied risk management study.
- To the Kerlick team, Dr Elisabeth Lickindorf and Dr Graham Baker, for the valuable lessons on academic writing and editing of this research report.
- Hedré Pretorius, the data analyst, for her commitment to analysis of the data.
- My study supervisor, Professor Hermien Zaaiman, for the professional guidance on the study, the lessons on academic writing and the time invested in the study.

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RESEARCH PROJECT OVERVIEW

This mini-dissertation (hereafter called “the dissertation”) contains a research project overview, an article, and reflection sections. The appendices provide additional information that may be of interest to the reader. The aim of this brief research project overview is to provide the reader with contextual guidance on how to appreciate the rest of this dissertation.

The main aim of a mini-dissertation study at master’s degree level is to teach the student how to conduct research and to write a research report. This study allowed the student (hereafter called “the researcher”) to learn how to perform applied research in a business context, within an established risk culture research programme. Other applied risk culture mini-dissertation research projects have been completed previously at the organisation studied as part of a larger risk culture research programme (Albanis, 2018; Batohi, 2020). These were qualitative, interview-based projects focusing on risk reporting aspects of risk culture. In the study reported here, the researcher conducted quantitative, survey-based research on how the risk culture of a bank’s executive leaders are perceived at the bank’s lower management levels.

In addition to the risk-reporting information provided by the previous studies, this study’s focus on risk leadership culture has added new risk-culture-related information to the organisation. This study also adds to the body of academic knowledge on leadership culture, with its specific focus on risk leadership, as it allowed for organisational testing of a new risk leadership culture scale (RLCS) developed within the larger risk culture research programme.

Additionally, this study provided the researcher with an opportunity to learn how to conduct an applied research project and to demonstrate mastery of research at master’s degree level within a research team context. The responsibilities of the different role players in this research project are described in Table 1. This dissertation was written to tell the story of the applied aspects of the study. As development and testing of the RLCS is the responsibility of the study supervisor, the detailed RLCS-related research findings will be discussed in a separate article.

Table 1. Role players in the executive risk culture study.

#	Team member	Role
1	Researcher	Designed and conducted the research at the bank, using the pilot RLCS. Wrote the dissertation.
2	Supervisor	Provided the pilot RLCS and evaluated how suitable the scale proved to be for the study sample (factor analyses combined with content analyses). Advised the researcher on the study design, interpreted the results, and provided a critical review of the dissertation.
3	Statistician	Performed the statistical analyses required to interpret the study findings to be able to answer the study's research questions.
4	Editor	Advised during article writing workshops, and performed a pre-final, grammar-only edit of the dissertation.

One of the learning tasks for the student was to select a journal suitable for this article, should we decide to submit the article for publication after examination. This article may be submitted to the *Journal of Banking & Finance*, as it accepts theoretical and empirical research papers in the fields of banking and research. It focuses on articles in the areas of risk management and analysis, banking (in terms of efficiency, regulation, risk management, and solvency) and corporate governance. This is a peer-reviewed journal that uses a double-blind review process. It is indexed in academic publishing databases such as Scopus and ScienceDirect. The journal's impact factor for 2019 was 2.269. This is relatively high, and the article may be reworked to include more information on the scale development before submitting to the journal. Examiner feedback on the article and journal will also be considered in such reworking of the article. The journal guidelines can be accessed on the following link:

https://www.elsevier.com/wps/find/journaldescription.cws_home/505558?generatepdf=true

ARTICLE

Article title:

Management perceptions of executive risk culture in a South African retail and business bank

Abstract

According to the Financial Stability Board (FSB), leaders in financial institutions play a pivotal role in setting the core values and expectations of their organisations' risk cultures. The FSB expects that these leaders ensure that this risk culture is understood and adopted, and that they communicate the importance of risk management through both their risk-related behaviour and the bank's management structures. This survey-based quantitative study aimed to provide a South African bank's executives with useful information to understand management perceptions of its executive risk culture, and suggestions on how to improve the bank's risk culture, by comparing senior and middle managements' perceptions of the executive risk culture at the bank. This study also tested the pilot version of a new risk leadership culture scale (RLCS), based on a risk-informed decision culture model. The scale measured two factors related to risk culture, namely, "perception of decision-focused executive risk leadership culture", and "perception of own contribution to executive risk decisions". Both management groups reported a largely positive view of the bank's executive risk culture. The study also provided the executive with valuable information on perceptions of their risk-related behaviour and of areas of risk culture that need attention. It furthermore adds to our knowledge of the link between risk culture and leadership messages in organisations, by providing leaders and risk practitioners in the financial services sector with suggestions on how to measure and improve their institutions' risk cultures, as part of their role to embed a positive risk culture in their businesses. Moreover, this study offers a novel academic view of the under-explored topical subject of the perception of risk leadership in banks, and demonstrates the value of using the RLCS, including initial suggestions on how to improve the scale.

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Introduction

The devastating 2007–2008 financial crisis raised questions regarding the contribution and integrity of risk management in financial institutions, such as banks (Gendron et al., 2016; Power et al., 2013; Roeschmann, 2014). The Financial Stability Board (FSB, 2014) and the Basel Committee for Banking Supervision (BCBS, 2015) responded to this crisis by highlighting the influence of risk culture on risk management in banks. They noted that top leaders, such as board members and executive managers, play a pivotal role in setting core values and expectations regarding the risk cultures in their respective organisations. For this reason, leadership behaviour should reflect the banks' espoused values (FSB, 2014). Executive managers are expected to communicate the board's risk values to lower organisational levels via senior and middle managers tasked to execute the institution's board-approved strategy. These management levels synthesise and disseminate risk information that represents executive risk edicts to allow for effective implementation of the organisation's risk management strategy (Bass, 2007, p. 34; Kuratko et al., 2005). It is therefore important that senior and middle managers perceive the key messages about risk from the executive leaders as intended by them, as these managers influence the other bank staff who are responsible for their execution. Inadequate perception of executive risk messages could contribute to a weak risk culture in the bank.

The financial services sector, and particularly the retail and business banking sector, plays a critical financial role in the lives of most South Africans, and consequently also a significant role in the South African economy. Most recently, the South African economy has been under strain due to the country falling into recession in late 2019, the sovereign credit rating downgrades in 2020 and the impact of the COVID-19 pandemic on the growth forecasts of the South African economy (SARB, 2020, p. 2). These factors have negatively affected the retail and business banking sector's performance and profitability due to a reduction in loans and an increase in non-performing loans (SARB, 2020, p. 28). The impact of the COVID-19 pandemic on international banking – as reflected by share prices and credit ratings – has also been compared to the 2008 financial crisis (Aldasoro et al., 2020). According to the South African Reserve Bank (SARB, 2020, p. 39), the domestic assets of the six South African systemically important financial institutions (SIFIs), also referred to as the Big Six banks, accounted for 90% of total SA bank assets at the end of December 2019. This situation underscores the current importance of risk leadership to South African commercial banks.

It is therefore critical that executive leaders of these organisations understand how their risk leadership is perceived by the other management levels in the bank. In this study, I therefore investigated senior and middle management perceptions of the executive risk culture of one of the Big Six South African retail and business banks, with the aim of providing useful information to the bank's leaders to understand and improve its risk-related leadership culture. The corresponding study objective was to compare senior and middle management perceptions of the prevailing

executive risk culture, with the study research question: *How do senior and middle management group perceptions of the executive risk culture in a South African retail and business bank compare?* Based on the academic literature described in the Background section, my expectation was that the further removed from the executive leaders managers operate, the weaker their perception would be of the executive risk culture in the bank.

Although this was not the first risk-culture-related study in the bank, its novel approach to the topic allowed me to explore a new risk culture area in the bank, and so contribute to the knowledge of risk culture of financial services organisations. This study forms part of a larger risk culture research programme, under which other applied risk culture research projects have been completed in the bank studied (Albanis, 2018; Batohi, 2020). These were qualitative, interview-based projects focusing on risk-reporting aspects of risk culture. The present quantitative study's novel focus on risk leadership culture added useful information to the bank's risk culture improvement initiatives. In particular, risk culture forms part of an existing initiative to measure its maturity alongside a risk culture assessment by internal audit in the bank. The current view by the bank is that its risk culture efforts are still immature, and of uncertain value. The bank's leaders and risk managers view its risk culture work, as an ongoing journey, and this study is expected to contribute to the bank's risk maturity assessment initiatives.

This research also adds to the body of knowledge on the link between risk culture and leadership messages in organisations. It provides leaders and risk practitioners in the financial services sector with useful pointers to possible patterns of perception of executive risk culture, as well as how to identify and contextualise potential risk culture improvement areas as part of their role to embed a positive risk culture in their businesses. In particular, this study provides a novel academic view of the under-explored topical subject of the perception of risk leadership in banks.

In addition, this survey-based research formed part of a larger study to develop a validated risk leadership scale, and was used to pilot a new risk leadership culture scale (RLCS) in a financial institution.

Background

The theoretical bases for this study are now explained in the context of the study aims. The first aim was to provide useful information to the bank's leaders to allow them to improve their risk leadership roles, and especially with respect to their influence on the organisation's risk culture. This study followed a decision-based view of risk management, such as that provided by Nason (2017, p. 181): "Risk management is the art of decision making under uncertainty." One can also see this definition as a succinct description of the ultimate risk management role of executive leaders in organisations.

I shall now explain how the perceptions of managers of how organisational leaders include risk when decisions are made, can be used to evaluate the organisation's executive risk leadership culture.

A measure of risk culture leadership is expected to allow banks to identify possible risk management problem areas. Such a measure has to be based on a suitable theoretical view of risk culture . After the 2008 financial crisis, the FSB considered weaknesses in risk culture to be a root cause of the crisis, and provided guidance on risk culture supervision (FSB, 2014). Consequently, the BCBS (2015) included risk-based decision making in its definition of risk culture:

A bank's norms, attitudes and behaviours related to risk awareness, risk-taking and risk management, and controls that shape decisions on risks. Risk culture influences the decisions of management and employees during the day-to-day activities and has an impact on the risks they assume.

These approaches to risk culture informed Zaaiman et al. (in progress) in their definition of risk culture:

The risk culture of a group is evident from the typical attitudes to risk when decisions are made in the group, i.e. how risk is usually considered when members of the group make decisions. The normal or typical level of active inclusion of risk when decisions are made by an organisational group represents the value attributed to managing risk by the group. Perceived typical inclusion of risk in decision making therefore represents the group's risk culture.

The risk culture model, used in this study, was based on a simplified structural and behavioural risk culture indicator interpretation of the onion view of national culture of Hofstede et al. (2010), illustrated in Figure 1. The risk culture indicators shown in the model represent the work of the FSB and De Nederlandsche Bank (DNB) on risk culture. They are represented in structure- and behaviour-based groups and link with Hofstede et al. (2010), who states that behaviour-based practices most closely represent the actual values of a group, whereas structural symbols are further removed from the group's values. Table 2 explains the meaning of each indicator. An organisation's risk culture depends on how a group's actions on each topic are perceived.

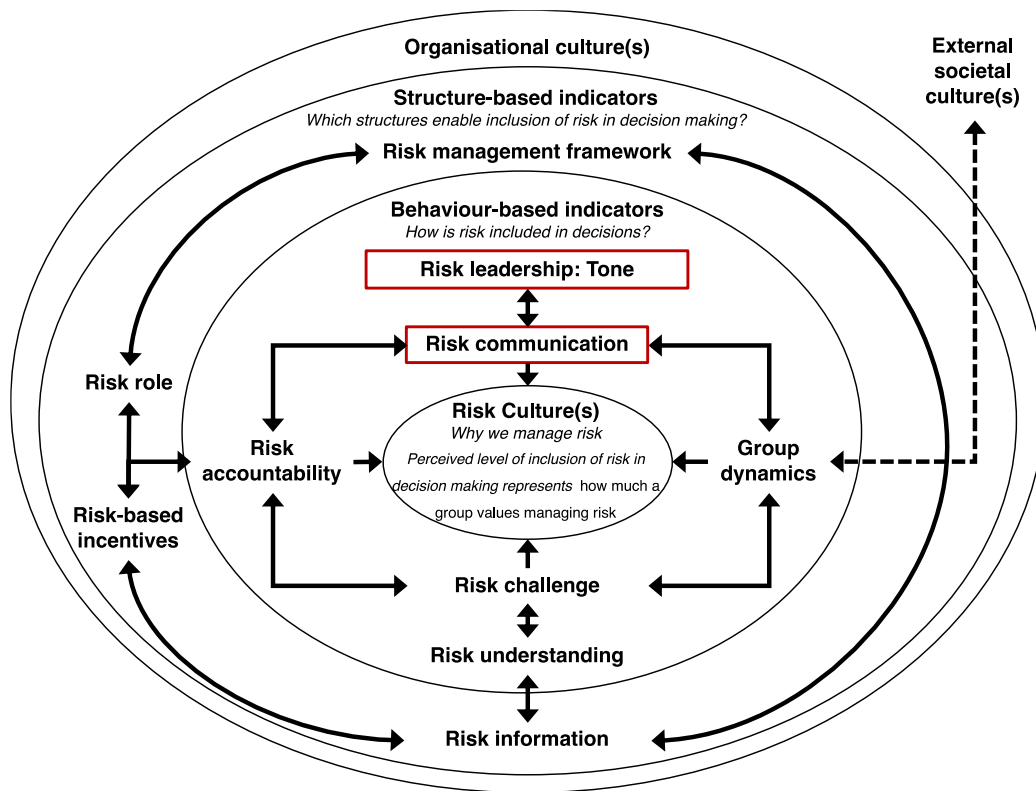


Figure 1: The risk-informed decision culture (RiDC) indicator model developed by Zaaiman et al. (in progress).

Table 2: Theory-driven risk culture interpretation codebook.

Code	Sub-code	Meaning	Reference
Risk management structures		Risk management structures intended to facilitate risk practices. These formal risk structures provide an indication of how risk should be managed and valued in an organisation.	Hofstede et al. (2010); Schein and Schein (2017); Zaaiman et al. (in progress)
	Risk management framework	An effective risk appetite framework is supported by appropriate risk appetite statement(s) that underpin the financial organisation's risk management strategy, integrated with the overall business strategy, to allow for risk-based decision making.	FSB (2014)
	Risk-related information	The risk information used by risk stakeholders in decision making.	DNB (2015)
	Risk role	Each board, management and other staff member must have a clear view and understanding of their role in managing risk in the organisation, including what they are responsible and accountable for.	DNB (2015)
	Risk-based incentives	The organisation's compensation structure promotes sound risk-taking behaviour.	FSB (2014)
Risk-related behaviour		Risk management behaviour or practices that provide an indication of how much risk management is actually valued in the organisation.	Hofstede et al. (2010); Schein and Schein (2017); Zaaiman et al. (in progress)
	Risk leadership – tone	Leaders transmit the importance of risk management in their organisation through their risk-related behaviour, in this case specifically how they formally include risk when making decisions.	FSB (2014)
	Risk communication	Refers to providing and receiving risk-related information to enhance decision-making processes.	FSB (2014)
	Risk accountability	Relevant employee behaviour reflects the desired risk culture and employees take ownership of risks when making decisions.	FSB (2014)
	Risk challenge	Critical discussion and debate on risks related to decisions.	FSB (2014)
	Risk understanding	Risk understanding across the business is important to ensure common understanding and awareness of risk for all employees involved in risk-based decision making.	FSB (2014)
	Group dynamics	Group dynamics is defined as the interaction between different positions and behavioural patterns within a group or between groups, affecting overall group effectiveness when making risk-based decisions.	DNB (2015)
How risk is valued in the organisation		Values are broad tendencies to prefer certain states of affairs to others.	Zaaiman et al. (in progress)

Code	Sub-code	Meaning	Reference
	Norms	Outcome of how risk is valued and indicates the risk-related values held by most of the members of a group. Norm: 'something that is usual, typical, or standard' – i.e. that which is normal and expected.	BCBS (2015); FSB (2014) IIF (2009)
	Traditions	Tradition: 'the transmission of customs or beliefs from generation to generation' – heritage; historical convention; unwritten law.	IIF (2009)
	Attitudes	Attitude: 'a settled way of thinking or feeling about something'. Synonyms: point of view, way of thinking, frame of mind, way of looking at things.	BCBS (2015); FSB (2014)
	Decision making	The level of explicit inclusion of risk in decision making represents the implicit, subjective value afforded to risk by the group.	Zaaiman et al. (in progress)
Group-based		Culture refers to the norms, traditions, attitudes and behaviours of groups of people in an organisation, including organisational subgroups.	Hofstede et al. (2010); Schein and Schein (2017)

Risk management is often defined in terms of its role in allowing an organisation to reach its objectives. For example, the Committee of Sponsoring Organizations of the Treadway Commission (COSO) defines enterprise risk management (ERM) as:

Enterprise risk management is a process, effected by an entity's board of directors, management and other personnel, applied in 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 (COSO, 2004).

Ensuring that an organisation meets its objectives requires risk management efforts to be integrated between the executive managers and the management levels tasked with executing executive management decisions. This requires effective communication of the importance of risk management from executive managers through to senior and middle management levels. The actual value accorded to risk management by a group, such as executive leaders, cannot be measured. As explained by Hofstede et al. (2010, pp. 7-10), values are inferred through observation and interpretation of the normative behaviour of its members. In the context of the decision-focused definition of risk culture used in this study, perception of how organisational leaders include risk when they make decisions, serves as a useful proxy for executive risk culture, as such observation and interpretation are expected to influence the risk behaviour of the groups responsible for executing executive risk-related decisions.

Perceptions of the importance of risk management in an organisation depend on how executive leaders explicitly and implicitly communicate this importance when decisions are made through their risk-related behaviour. In this study, I focused on investigating the “Risk leadership: Tone” indicator, in the context of the “Risk communication indicator”, as indicated in Figure 1. Correspondingly, “Tone from the top” is one of the FSB (2014)’s indicators of a sound risk culture. The FSB (2014) identifies four aspects of this indicator, namely: 1) leading by example; 2) ensuring that the values espoused by senior management are the same as those adopted by the rest of the staff; 3) ensuring common understanding and awareness of risk; and 4) learning from past experiences. I explored a study-specific version of these components, namely, “leading by example on risk”, in combination with “ensuring that leadership risk values are the same as those adopted at lower management levels”, by investigating how the risk culture of executive leaders is perceived by the other management levels in the bank.

The RiDC model’s “Risk communication” indicator was included in this study through measurement of manager perceptions of the executive leaders’ implicit and explicit communication on the importance of consideration of risk when decisions are made. Fairhurst and Connaughton (2014) found communication to be a central and defining part of leadership. Harrison and Mühlberg (2014, pp. 26-27) also view leadership and communication as integrally linked, and mention that leadership equates to communication, and that the purpose of leadership communication in a corporate setting is to support positive business growth and a positive workplace culture.

As in the approach of Hofstede et al. (2010) to culture discussed above, leaders explicitly communicate the intended value accorded to risk when decisions are made through the risk structure-based indicators shown in Figure 1; these are the organisation’s risk management framework, risk role descriptions, risk-based incentives, and quality and availability of risk information. On the other hand, their risk behaviours related to the behaviour-based indicators shown in Figure 1, which demonstrate actual use of the structural indicators, send implicit messages on how important they consider the inclusion of risk when organisational decisions are made. These indicators are perceived by the senior and middle managers, who in turn communicate the actual value afforded to risk management to the rest of the organisation through their own risk-related behaviour. As perception influences what people believe, managers’ perceptions of executive risk leadership will influence the extent to which they acknowledge the value of recognising risk in decision making, and correspondingly impact the behaviours at lower management levels. Leaders generate subtle cues that affect decision maker perceptions (Sitkin & Pablo, 1992). Executive risk leadership in the bank is important because the difference in perception of risk “tone-from-the-top” at lower management levels can be expected to adversely influence strategy execution. According to Schein and Schein (2017, p. 184), organisational leaders and managers most powerfully

communicate what they care about through what they systematically pay attention to. They demonstrate this through what they notice and comment on, measure, control, reward, and in other ways systematically manage. This means that managers learn which risk-related behaviour is expected from them from the risk behaviour of the organisation's leaders and specifically their direct managers, as immediate leadership actions serve as the cultural agents in an organisation (Block, 2003). Chong et al. (2018) aver that organisational culture consists of the learning experiences of its members, which means that senior and middle management play a key role in ensuring the consistency of the cultures in the entity.

The second study aim was to compare senior and middle management perceptions of the prevailing executive risk culture. To explain the South African study context, I first discuss the different management roles relevant to the current study. According to the King IV Code on Corporate Governance in South Africa of the Institute of Directors in Southern Africa (IoDSA (2016, p. 21), an organisation's governing body, or board in the case of a bank, has overall responsibility for setting the entity's strategic direction aimed at achieving its goals. The board delegates the implementation and execution of the approved strategy to the organisation's management via the chief executive officer (CEO). Executive managers are the highest decision makers in the business, and responsible for the implementation and control of the approved strategy (IoDSA, 2016, p. 14 & 16). Executive managers usually delegate the actual implementation of the strategy to the organisation's senior managers, who report to the executive managers, demonstrate oversight of their businesses, and establish a management structure that promotes accountability and transparency throughout the bank (Financial Conduct Authority, 2017; IoDSA, 2016, p. 14; Storer, 2018). In turn, middle managers are responsible for implementing the strategic implementation decisions made by senior management, performed by liaising with senior and more junior and non-management staff at work. This role entails synthesising and disseminating information from the top down through the ranks of the organisation (Bass, 2007; Harding et al., 2014; Kuratko et al., 2005). Given the different roles that each management level performs, it is important that the board's strategic messages are efficiently transmitted from the executive managers through to middle management levels via the senior managers.

This explains the study aim to investigate senior and middle management perceptions of the executive risk culture of one of the Big Six South African banks, to provide useful information to the bank's leaders to understand and improve its risk-related leadership culture. Culture and leadership authors have deduced that these two organisational aspects can be seen as two sides of the same coin, to the extent that leadership affects culture as much as culture influences leadership (Chong et al., 2018; Schein & Schein, 2017, p. 384). Block (2003) reported that the leadership style of immediate supervisors significantly relates to employee perceptions of organisational culture, and

that immediate supervisors had a greater influence on employee perceptions of culture than all other leadership levels within an organisation. My expectation therefore was that the further removed from the executive that managers operate, the weaker their perception of the executive risk culture in the bank.

The third study aim was to provide indicators of what the executive leaders need to focus on to improve risk culture in their organisation. Executive leaders can use the RIDC model for the purpose. Accordingly, the RIDC model indicators were used to ask members of the two management groups what needs to be changed first to improve the inclusion of risk in decision making.

The last study aim was to pilot a new risk leadership culture scale (RLCS) in the bank as part of a larger study to develop a validated risk leadership scale. The study approach and methods are described next.

Method

A quantitative research approach was used to evaluate how senior management and middle management groups perceive the executive risk culture in the bank. The research hypotheses for the study were:

- Null hypothesis H_0 : The senior and middle management groups hold similar perceptions of the executive risk culture in the bank.
- Alternative hypothesis H_1 : Managers at different levels differ in their perceptions of executive risk culture in the bank, with the senior management group having a significantly higher perception than the middle management group.

Study population and sample

Figure 2 illustrates the bank's management structure. Senior managers communicate risk messages from the divisional executive management structure to the middle managers. In addition, the senior and middle managers report risk status information upward to their next senior level in the management hierarchy.

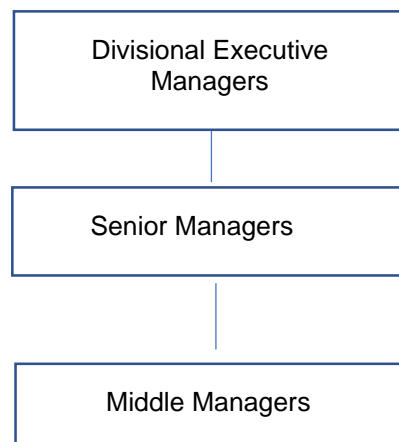


Figure 2: Illustration of the bank's management structure.

The bank's executive management structure consists of multiple executive managers reporting to the group executive manager. The perceived risk culture of this executive management team was measured in this study. Divisions in which most staff members work in a divisional head-office environment were included in this study, as the expectation was that senior and middle managers in these communal working areas would be aware of how executive managers approach risk and risk management. This data selection strategy meant that the bank's distributed branch division was

excluded from this study. The study population consisted of full-time employees. Contractors were not included, as they represent a small population of mostly junior staff, whose knowledge of executive risk culture was expected to be limited, and would have added little of value to the study. Table 3 provides the number of senior and middle managers within the corresponding divisions, and across the bank.

Table 3: An overview of the study population, indicating the corresponding numbers of employed senior management and middle managers at the bank.

Population	Division	Senior management	Middle management	Total
1	Business banking	37	492	529
2	Card payments and transactional products	20	319	339
3	Vehicle finance	9	317	326
4	Risk, compliance & business Information	29	267	296
5	Home finance	15	233	248
6	Retail relationship banking	14	213	227
7	Consumer banking and client engagement	24	140	164
8	Finance, projects and strategy	35	113	148
9	Personal loans	8	127	135
10	Forex and investments	9	75	84
11	Digital channels & divisional Management	5	69	74
12	Human resource, learning and development	6	36	42
		211	2401	2612

The bank's executives granted approval to conduct the study.-The researcher sent a survey link to all 2612 employed senior and middle managers. This survey was administrated online by the NWU to ensure the participants' anonymity. The web link for the survey was available for 21 days to enable staff to complete the exercise. A follow-up reminder, intended to increase the response rate, was sent each week to all potential participants. The first reminder mail included the study participation rates up to that point. This seemed to encourage further participation, leading to a spike in participant numbers, with fewer additional participants after the second reminder in the third week. A total of 565 respondents completed the survey, corresponding to a total response rate of 22% (Table 4).

Table 4 compares sample response rates for the different divisions with their proportional representation in the study population. Most of these response rates lie reasonably close to those expected from their respective representation in the study sample; the lowest response rates, at 5%

lower than the expected rate, were for the “Card payments and transactional products”, the “Risk, compliance and business information”, and for the “Finance, projects and strategy” divisions. It is potentially interesting that managers in the two areas that could have been expected to be closest to the need to satisfy bank risk policies and regulation, namely “Risk, compliance & business information” and “Finance, projects and strategy”, returned a lower relative response rate than the other divisions. The lower response rates in “Card payments and transactional products” may be explained on the basis that some managers are based remotely and not at the divisional head office. The “Retail relationship banking” division returned the highest number of responses, and also a much higher response rate than would have been expected from their representation in the study data. The reasons for these lower and higher response rates were not investigated as part of this study.

Table 4: Comparison of sample response rates for the divisions against expected response rates according to their proportional representation in the study population.

#	Division	Sample frequency	Population frequency	<i>Proportion of sample frequencies in the population</i> <i>Division sample frequency as percentage of division population size</i>	<i>Actual sample frequency distributions across divisions</i> <i>Division sample frequency as percentage of total sample size</i>	<i>Expected distribution of division population frequencies in the population</i> <i>Division population frequency as percentage of total population size</i>	<i>Difference between actual division sample and expected population distribution</i> <i>Expected population proportional percentage</i>
		n	n	%	%	%	%
1	Business banking	127	529	24	22	20	2
2	Card payments and transactional products	44	339	13	8	13	-5
3	Personal loans	14	135	10	2	5	-3
4	Home finance	35	248	14	6	9	-3
5	Retail relationship banking	175	227	77	31	9	22
6	Vehicle finance	60	326	18	11	12	-1
7	Consumer banking and client engagement	31	164	19	5	6	-1
8	Forex and Investment	8	84	10	1	3	-2
9	Digital channels & divisional management	11	74	15	2	3	-1
10	Risk, compliance & business information	37	296	13	7	11	-5
11	Finance, projects and strategy	7	148	5	1	6	-5
12	Human resources, learning and development	16	42	38	3	2	1
	Total	565	2612	22	100	100	0

Next, we consider how well the senior and middle managers were represented in the sample. Seventeen percent (n = 96) of the respondents belonged to the senior manager group and 83% (n = 469) were middle managers. Although the majority of respondents were middle managers, senior managers as a group were better represented than middle managers, with 45% of the senior and 20% of the middle managers responding to the survey. In their review of organisational survey response rates, Baruch and Holtom (2008) found an average response rate of 35.7% with a standard deviation of 18.8%. Subsequently, Anseel et al. (2010) found similar response rates in organisational studies. The present study's group response rates of 20% and 45% therefore fell within the expected range of organisational responses. In addition, Anseel et al. (2010) found that survey response rates in surveys at top management level can be expected to be lower than for other management levels. However, in the study reported here, senior managers returned a higher response rate than middle managers. This relatively high rate indicates that senior managers saw value in taking time to complete the survey and therefore also value risk management at the bank. The lower response rate for middle managers may be due to their being further removed from executive decisions. However, I did not investigate these differences in response rates.

Ethical considerations

In addition to the bank's executive's and legal approval, the study proposal was approved by the NWU Faculty Economic and Management Sciences ethics committee in May 2020. The participants were not offered any incentive (monetary or otherwise) and they could withdraw from this study at any time without penalty. All surveyed participants were older than 18 years, therefore no parental consent to participate in this study was required. In addition, only limited demographic information expected to be useful to this study was gathered.

Risk leadership culture scale (RLCS)

The RLCS was used to compare senior and middle management perceptions of the prevailing executive risk culture. This scale was based on the leadership-related items contained in the UARM Risk Culture Scale (RCS), which had been piloted over 3 years (2017–2019) in several studies across multiple industries. The study reported here provided an opportunity to test this new scale in a financial services organisation. In this article, I focus on the use of the scale to address my research objective and not on the statistical analysis of the scale itself, as this will be described in a separate article.

In summary, two factors were found in the responses to the scale items, and seven of the initial nine items contained in the RLCS adequately assessed these two factors. The two excluded items contributed least to Factor 1 based on the scale analysis data and item content, as their wording was least directly relevant to the inclusion of risk when leaders make decisions. As all of the pilot items were related to the inclusion of risk in decision making, it was a surprise that the items measured two factors. Based on the content of the items, the factors were “perception of decision-focused executive risk leadership culture” and “perception of own contribution to executive risk decisions”. Both these factors were expected to contribute to the perceived executive risk culture in the organisation. The factors and corresponding items are provided in Table 5. The internal consistency of the resulting scale for this study sample was high, with a Cronbach’s alpha value of 0.89, indicating that the scale can be deemed reliable for this study.

Table 5: RLCS factors and corresponding items.

Item	Description
Factor 1	Perception of decision-focused executive risk leadership culture
Item 1	Executive managers actively consider risk when they make decisions.
Item 2	Executive managers explain how they connect risks, opportunities and organisational objectives in their decisions.
Item 3	Executive managers manage risks within the organisation's risk appetite strategy.
Item 4	Executive managers are held accountable for including risk when they make decisions.
Item 5	Executive managers practise what they preach on risk issues.
Factor 2	Perception of own contribution to executive risk decisions
Item 6	Executive managers ask for my input when they make decisions about risks related to my role.
Item 7	Executive managers take my concerns about risk into account when they make decisions.

Table 6 provides the items mapped to the RiDC indicators, indicating that the items cover all of the model indicators, except for external societal cultures. The FSB (2014) also did not include this indicator as part of its risk indicator set.

Table 6: Mapping of the risk leadership culture scale (RLCS) to the risk-informed decision culture indicators.

UARM RCS Item No.	Item	Behavioural indicators						Structural indicators				External
		Risk leadership: Tone	Risk communi- cation	Risk account ability	Group dynami cs	Risk challenge	Risk understa nding	Risk management framework	Risk role	Risk-based incentives	Risk-related information	External societal culture(s)
1	Managers actively consider risk when they make decisions.	x			x				x			
2	Managers explain how they connect risks, opportunities and organisational objectives in their decisions.	x	x		x		x		x		x	
3	Managers manage risks within the organisation's risk appetite strategy.	x			x			x	x		x	
4	Managers are held accountable for including risk when they make decisions.	x		x		x		x	x	x		
5	Managers practise what they preach on risk issues.	x							x			
6	Managers ask for my input when they make decisions about risks related to my role.	x			x	x	x		x		x	
7	Managers take my concerns about risk into account when they make decisions.	x	x		x				x			

The RLCS was a 5-point Likert scale, with the following item response options:

Item 1:	1. Not at all	2. Not well	3. Moderately well	4. Well	5. Perfectly
Items 2–7:	1. Never	2. Infrequently	3. Sometimes	4. Usually	5. Always

These options allowed for interpretation of the meanings of the factor scores shown in Table 7.

Table 7: Risk leadership culture scale (RLCS) score categories.

		RCLS (FS = Factor score)				
		1.0≤FS<1.5	1.5≤FS<2.5	2.5≤FS<3.5	3.5≤FS<4.5	4.5≤FS≤5.0
Factor 1	Perception of executive risk leadership (ERL) culture	Very negative view of ERL	Negative view of ERL	Moderate view of ERL	Positive view of ERL	Very positive view of ERL
Factor 2	Perception of own contribution to executive risk decisions	Very low perceived contribution	Low perceived contribution	Moderate perceived contribution	High perceived contribution	Very high perceived contribution

The factor scores were calculated using the average of the responses over the items constituting the factor. The scale included an “I do not know” option for each item, to allow a participant to opt out if they did not know the answer. Only participants who provided a Likert-scale response – that is, not an “I do not know” answer – for at least 60% of the items making up the factor were included in the factor calculation. That meant that participants should have responded to at least three out of the five items belonging to Factor 1, and on both Factor 2 items, to avoid spurious influences on the data results of participants with insufficient experience of the risk-related behaviour of executive leaders. In addition, the “I do not know” responses per item provided useful diagnostic information on areas that may require leadership attention, as discussed below in the Results and discussion section. Table 8 shows the numbers of participants included in and excluded from the factor calculations. The excluded percentages were similar for the management groups per factor. The percentages of excluded participants cannot be compared between the two factors, as they were allowed two “I do not know” answers for the five-item Factor 1, and none for the two-item Factor 2. Nevertheless, the remaining data sets allowed for comparison of the factor scores between the study groups, as described below.

Table 8: Numbers of participants included and excluded in the factor calculations.

	Total number of participants n	Number of participants included in factor calculation n	Number of participants excluded from factor calculation n	Percentage of excluded participants
Factor 1 Perception of decision-focused executive risk leadership culture				
All	565	549	16	3
Senior management	96	92	4	4
Middle management	469	457	12	3
Factor 2 Perception of own contribution to executive risk decisions				
All	565	513	52	9
Senior management	96	84	12	13
Middle management	469	429	40	9

SAS (statistical software) was used to perform the descriptive and inferential analysis. The factor distributions were used to determine the most suitable statistical test to analyse the data. The Factor 1 score distributions were similarly negatively skewed for the total sample, as well as senior and middle management groups, respectively, as shown in Figure 3. The Factor 2 scores showed different distributions for the senior and middle management groups, with the latter group's distribution more platykurtic (flatter) than that of senior management (Figure 4). However, the Factor 2 distributions were also negatively skewed, and not bell-shaped, meaning that neither factor distribution could be regarded as normally distributed. Table 9 provides descriptive statistics for these two factors. The assumption of normality, to be able to use parametric statistical tests for differences between groups, therefore did not hold.

Furthermore, the large differences in group sizes, shown in Table 9, imply that non-parametric tests were suitable for the analysis of the study data. Non-parametric Mann–Whitney U tests were performed to test for statistical significant difference between the senior and middle management groups on Factors 1 and 2 at the 95% confidence level. The non-parametric null hypotheses (H₀) for each factor stated that the relevant factor distributions were equal

H₀: Factor distributions are equal

If $p > \alpha = 0.05$; do not reject H₀. No significant difference between groups.

H₁: Factor distributions differ significantly

If $p < \alpha = 0.05$; reject H₀. Significant difference between groups.

The test findings are discussed under Results.

Table 9: Factors 1 and 2 descriptive statistics.

	Number of participants included in the factor calculation	Minimum	Maximum	Median	Mode	Mean	Standard deviation
Factor 1 Perception of decision-focused executive risk leadership culture							
All	549	1.2	5.0	4.2	4.0	4.1	0.7
Senior management	92	2.2	5.0	4.2	4.0	4.2	0.6
Middle management	457	1.2	5.0	4.2	4.0	4.1	0.7
Factor 2 Perception of own contribution to executive risk decisions							
All	513	1.0	5.0	3.5	4.0	3.2	1.2
Senior management	84	1.0	5.0	4.0	4.0	3.8	0.9
Middle management	429	1.0	5.0	3.0	4.0	3.1	1.3

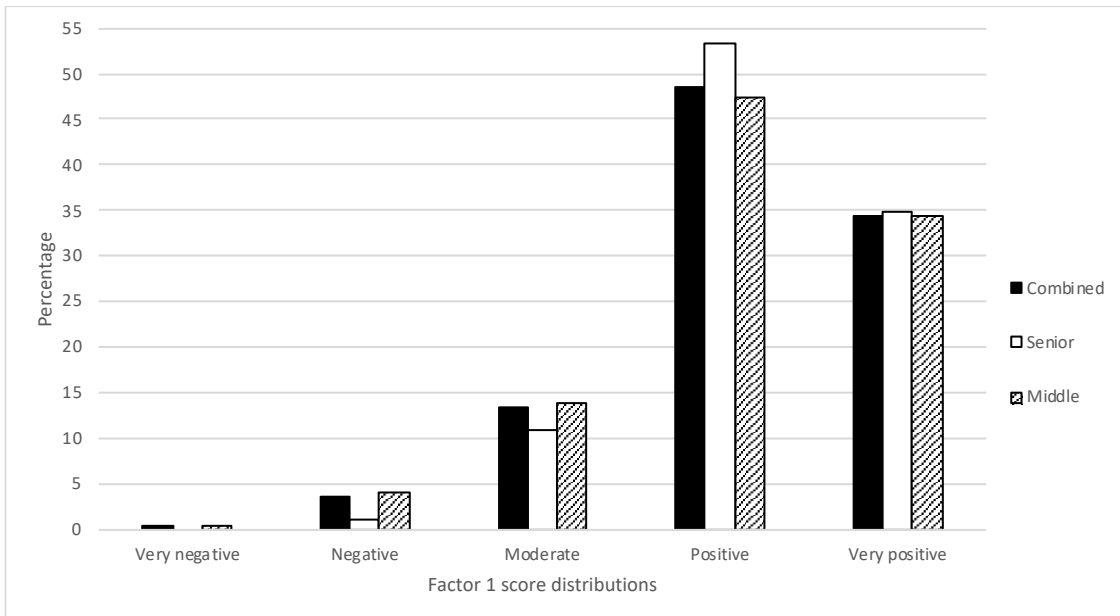


Figure 3: Response distributions for Factor 1: Perception of decision-focused executive risk leadership culture, allowing for comparison of the combined, senior and middle management groups of respondents.

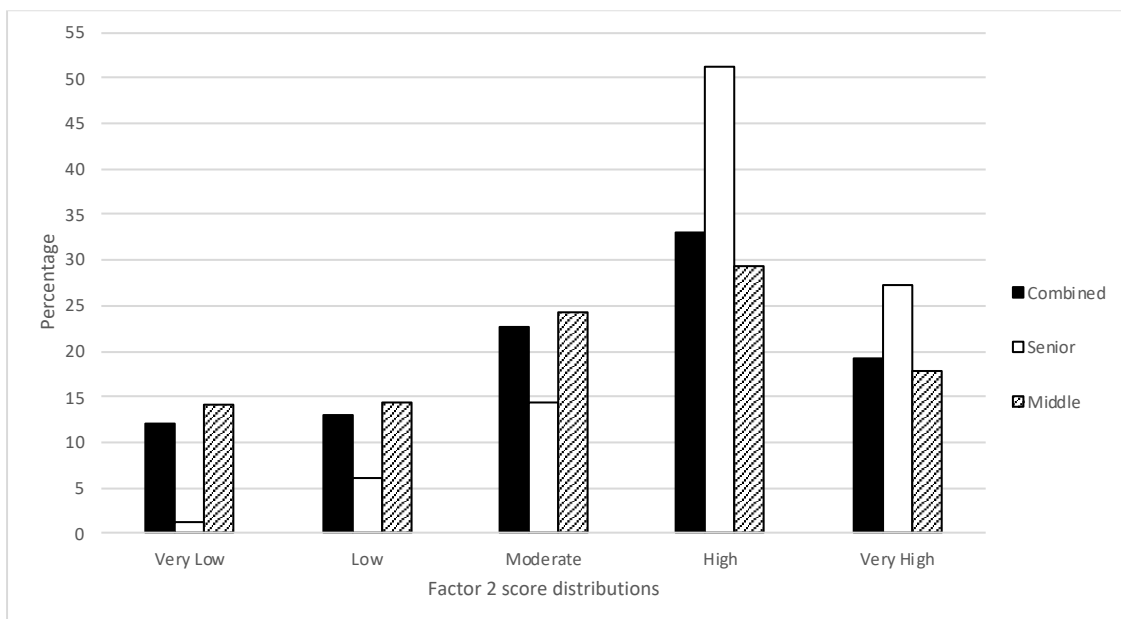


Figure 4: Response distributions for Factor 2: Perception of own contribution to executive risk decisions, allowing for comparison of the combined, senior and middle management groups of respondents, respectively.

Risk culture improvement diagnostic item

The survey ended with an additional diagnostic item aimed at identifying priority areas for improving the risk culture in the organisation:

“To improve the inclusion of risk in decision-making in the organization, leadership can start by improving”....

- Holding decision-makers accountable for how they included risk when making decisions
- How risk is included in decision making in the organisation (group dynamics)
- Leadership: Tone in the middle about actively including risk when making decisions
- Leadership: Tone from the top about actively including risk when making decisions
- Quality of risk-related information
- Risk-based rewards – for example, remuneration, succession planning and talent development
- How managers communicate consideration of risk when decisions are made
- How risk is used to query decisions
- Risk management framework – for example, risk appetite, functions, systems, processes, practices, data
- Risk role clarity
- Risk understanding.

The respondents had to choose one of these options. These items represent the risk culture indicators illustrated in Figure 1. The online survey presented the items in random order to avoid item order response biases such as primacy bias. Primacy bias refers to the tendency to select response options at the beginning of a list of options (Chan, 1991; Simon, 1957). Random ordering of options is therefore expected to increase the trustworthiness of the item responses.

Results and discussion

In this section, I discuss the survey findings in the context of the study aims. This information is provided in three categories 1) comparison of management level perceptions of risk leadership culture; 2) analysis of the “I do not know” responses; and 3) indications of what the executive leaders need to focus on to improve the risk culture in their organisations. Lastly, suggestions for further development of the RLCS are provided.

Management level perceptions of risk leadership culture

The negatively skewed factor distributions (Figures 3 and 4) and group factor scores provided in Table 10 show that most respondents had a largely positive view on two factors measured by this

scale. Although survey responses may be affected by positive response biases, such as social desirability bias (Kreuter et al., 2009; van de Mortel, 2008), one would expect that participants had little reason to deviate from their true opinions, as this was an internal, anonymous survey, where they evaluated an external group's performance, not their own.

Table 10: Factor scores for testing the study hypotheses

Role level	Factor scores		
	Calculation	Factor 1 Perception of decision- focused executive risk leadership culture	Factor 2 Perception of own contribution to executive risk decisions
All	Average, weighted according to role level sample size	4.1	3.2
Senior management	Straight average of senior manager factor scores	4.2	3.8
Middle management	Straight average of middle manager factor scores	4.1	3.1

The next question to consider was whether the senior and middle management group's factor scores differed significantly, as expected from the study's alternative hypothesis.

Table 11: Non-parametric factor level analysis using the Mann–Whitney U.

Role level	n	Wilcoxon mean score	Chi-square test statistic	p-value	Significant difference at $\alpha = 0.05$
Factor 1: Perception of decision-focused executive risk leadership culture					
Senior management	92	287	0.67	0.412	No
Middle management	457	273			
Factor 2: Perception of own contribution to executive risk decisions (inclusion in the process)					
Senior management	84	331	25.54	<0.0001	Yes
Middle management	429	243			

The Mann–Whitney U test results shown in Table 11 indicated no statistically significant difference between the factor distributions of Factor 1 between the two management groups. This means that the null hypothesis could not be rejected, and the two groups are deemed to show the same positive view of this decision-based measure of executive risk culture. The largely positive factor scores therefore reflect positively on the implicit importance-of-risk messages sent by the bank's leaders, as perceived by lower management levels. Communication of these messages works well, either

directly from executive managers to senior and middle managers, and/or via the senior management structure to middle managers.

On the other hand, the senior and middle management group perceptions of their own contributions to executive risk decisions showed significant differences, with senior managers feeling significantly more confident than middle managers that their opinions and concerns about risk are considered when executives make decisions. Similarly, senior management's Factor 2 score of 3.8 falls in the "High perceived contribution" score category shown in Table 8, whereas middle management's score of 3.1 lies in the "Moderate perceived contribution" category. This finding is understandable as senior managers deal directly with executive managers, and are expected to influence executive manager decisions more directly than middle managers. However, this is an area where the bank's management teams may spend more time explaining to the lower management levels how their inputs are considered when decisions are made.

Analysis of the "I do not know" responses

The "I do not know" item response options provided in Figure 5 give further diagnostic information on possible risk culture improvement areas by showing the proportions of the senior and middle management groups that indicated that they did not have an opinion on an item. Although the percentages in the chart are small, three items indicate areas of concern.

For Factor 1, *Item 4: "Executive managers are held accountable for including risk when they make decisions"*, had the highest number of "I do not know" responses (74; 13%). Figure 5 shows that most of these respondents were from middle managers (65; 14%). Nine percent of senior managers also opted not to rate this item. Risk accountability is one of the RiDC indicators for the risk culture in an organisation. One can expect that executive risk leadership's behaviour and attitude to taking accountability for their risk actions will influence the risk culture of managers and employees further down the organisation. This indicates that more work needs to be done to allow employees to understand accountability for risk inclusion when executives make decisions.

This finding links closely to uncertainty on *Item 5: "Executive managers practise what they preach on risk issues"*, where both management groups seemed equally unsure about the situation, with a total of 46 (8%) respondents selecting the "I do not know response". Again, this highlights possible issues with risk-specific visibility of the bank's executive managers.

It is of concern that a greater percentage of senior than of middle managers reported uncertainty about the items belonging to Factor 2:

Item 6 “Executive managers ask for my input when they make decisions about risks related to my role” (6%).

Item 7 “Executive managers take my concerns about risk into account when they make decisions” (11%).

As senior managers usually report directly to executive managers, one would expect greater clarity about how executive managers consider senior managers’ risk inputs and concerns when they make decisions. This is an area to which executive managers could give more attention.

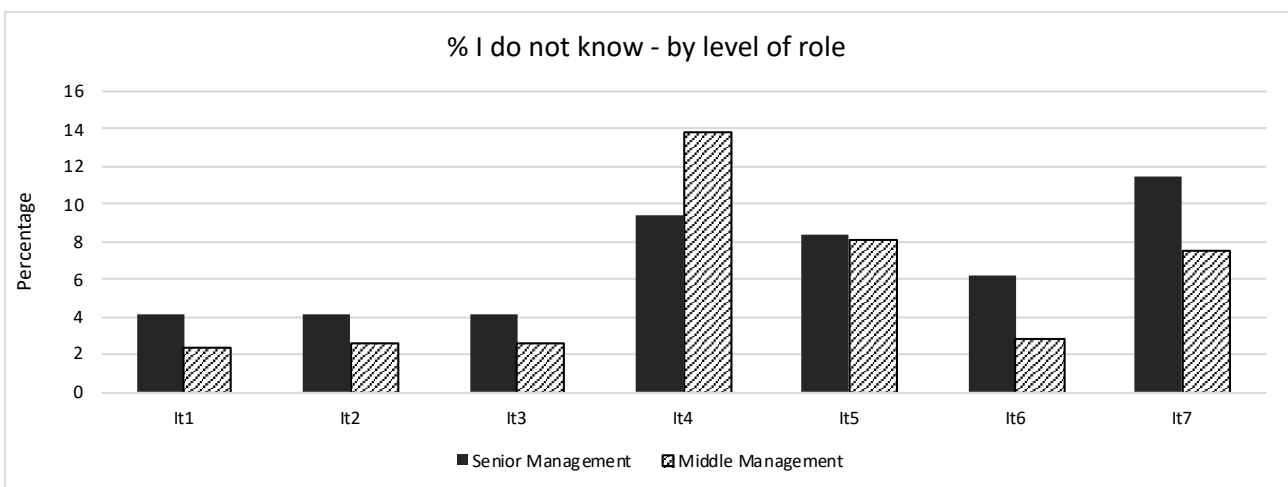


Figure 5: Percentage of “I do not know” responses for the senior and middle management groups.

Suggestions on improving the bank’s risk culture

Lastly, study participants were asked to suggest priority areas for improving the inclusion of risk in decision making in the bank:

“To improve the inclusion of risk in decision-making in the organisation, I believe that we must start with improving...”

Each participant was asked to select one priority option from a risk culture indicator-based list. Table 12 provides the percentage of each option selected by the management group, as well as a management group size-weighted percentage for all participants. Five top priority areas of improvement were identified based on the weighted total response rates of 10% and higher, as shown in Table 12. These areas are indicated in the RiDC model diagram (Figure 6).

Table 12: What needs to be improved in the bank to improve the inclusion of risk in decision making, with priority areas indicated in bold font.

Improvement area	Priority ranking*	Senior management %	Middle management %	Total %	Weighted total %
Understanding of risk	1	22	20	21	21.1
Risk management framework (e.g. risk appetite, functions, systems, processes, practices, data)	2	18	17	17	17.5
Holding decision-makers accountable for how they included risk when making decisions	3	10	11	11	10.9
Risk-related role clarity	4	14	8	9	10.7
How managers communicate consideration of risk when decisions are made (risk communication)	5	7	10	10	8.9
Risk-based rewards (e.g. remuneration, succession planning and talent development)	6	6	9	8	7.5
Leadership: tone from the top about actively including risk when making decisions	7	8	6	6	7.2
Quality of risk-related information	8	5	5	5	5.1
How risk is included in decision making in different groups in the organisation (group dynamics)	9	3	6	5	4.4
Risk challenge	10	3	4	4	3.6
Leadership: tone in the middle about actively including risk when making decisions	11	3	3	3	3.3
Total %		100	100	100	100

*Priority ranking is based on weighted totals.

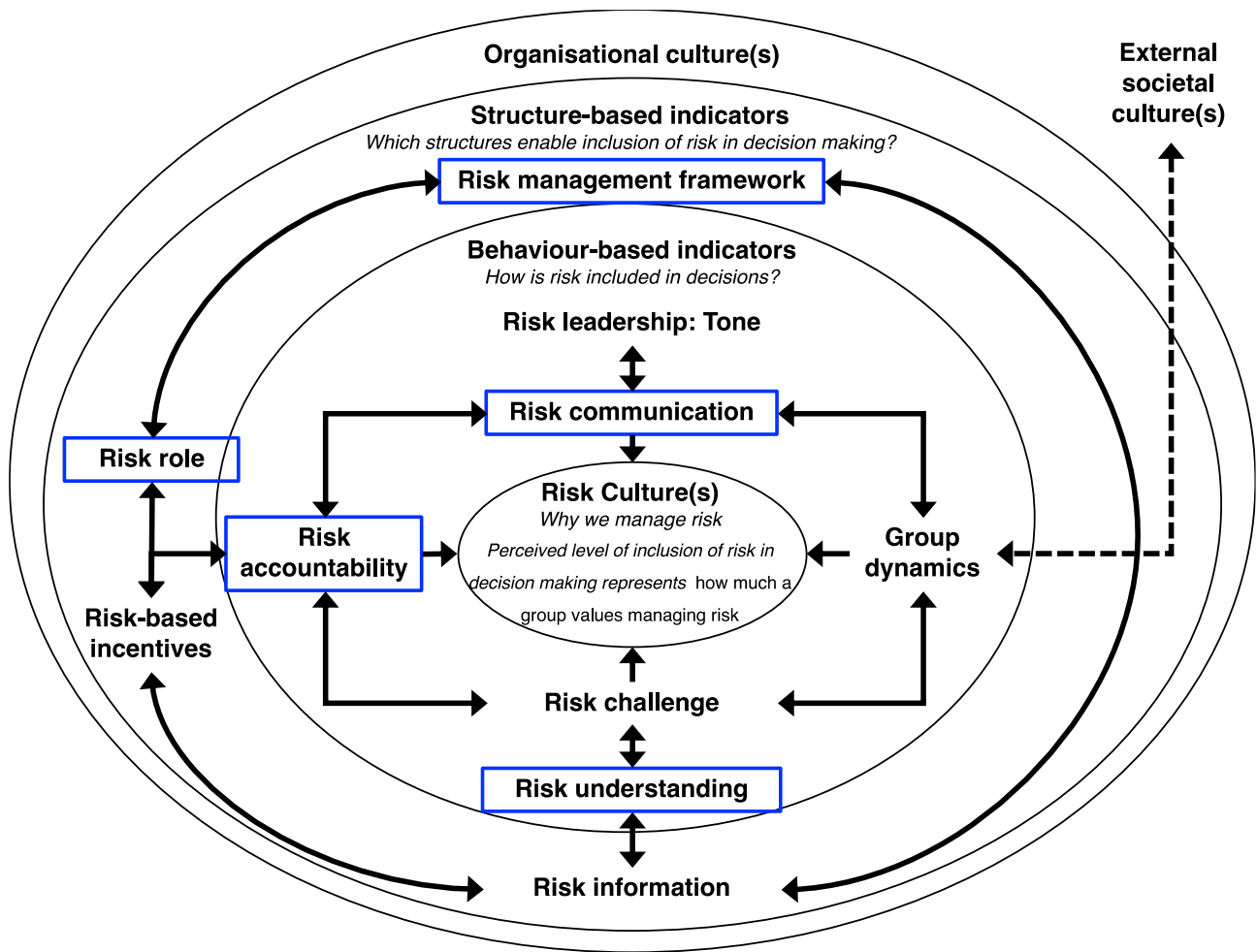


Figure 6: Priority decision-focused risk culture improvement areas mapped to the risk-informed decision culture (RiDC) indicator model developed by (Zaaiman et al., in progress).

The initial idea behind this study was that “Risk leadership: Tone” and the corresponding “Risk communication” between management levels are crucial for an optimal organisational risk culture. The RLCS measurement of leadership factors related to risk culture showed that senior and middle management groups generally felt positive about how executive leaders model and communicate behaviour related to risk decisions, thereby satisfying the requirement of the FSB to lead by example. Other FSB requirements were that executive leaders have to ensure that the organisation’s risk values are adopted by the rest of the staff in a financial institution, and to ensure common understanding and awareness of risk. The top risk areas identified to improve the decision-focused risk culture in the bank directly link to these requirements, as is discussed below in terms of risk culture indicator.

1) Shared understanding of risk

Both management groups identified improvement in shared understanding of risk as the highest priority improvement area, thereby indicating a general view of inconsistent understanding of the concept of risk in the bank. The bank's multiple divisions and many employees require a structured approach to assist employees to understand risk in the way intended by the bank's leaders. The option did not define what was meant by "shared understanding of risk". However, the second-most priority improvement area provides an indication of what needs greater shared understanding.

2) Risk management framework (e.g. risk appetite, functions, systems, processes, practices, data)

The next most-selected option was to improve the risk management framework. The bank has made significant financial and operational investments in updating and building central risk management frameworks. Being selected as the second-highest area for improvement seems to indicate that these frameworks are unclear to staff members outside the risk community. This feedback indicates that greater effort is needed to ensure that the bank staff at all levels, and certainly at senior and middle management levels, are aware of, and understand, the risk management frameworks. Expected benefits of integrated enterprise ERM frameworks are well described in the literature, e.g. Borghesi and Gaudenzi (2013) and Prewett and Terry (2018). However, such benefits can be realised only if risk management frameworks are understood and used by all staff members in the bank.

3) Accountability for including risk when making decisions

The third most-selected option referred to holding decision makers accountable for how they include risk when making decisions. This result links to the "I do not know" finding that more work is needed to allow employees to understand accountability for risk inclusion when executives make decisions. These results indicate that the question of how executives, managers and other staff will be held accountable for including risk when decisions are made, have to be communicated and demonstrated in practice. Risk accountability in a bank may be assigned as part of staff performance management and remuneration contracts, as explained by Angeli and Gitay (2015). However, if this information is confidential and not communicated, this may negatively impact on the perceived risk culture in the bank. Why actively include risk when decisions are made when employees are unsure that this practice will be valued and rewarded?

4) Risk-related role clarity

Risk accountability linked to risk-related role clarity, which was the fourth most-often item selected for improvement, as accountability for risk management, including how risk is considered when decisions are made, should form part of every manager's role description. Interestingly, this option was more often selected by senior managers than middle managers, indicating an improvement area that requires attention from the executive managers in the bank.

5) Risk communication

Ten percent of middle managers selected risk communication as an area that needs to improve first, whereas senior managers were less concerned about this. This brings us back to the importance of effective communication of the value of risk management from executive managers through to senior and middle management levels discussed at the beginning of this article. Even though both senior and middle management gave positive ratings of their perceptions of decision-focused executive risk leadership culture on Factor 1, middle managers reported they needed more communication on risk at the bank.

In summary, the information gathered using the RLCS offered valuable indications of areas that the bank's leaders may address to improve the bank's risk culture, thereby satisfying the aims of this study.

Suggestions for further development of the RLCS

The survey provided useful information for the bank studied, and the RLCS pilot may be deemed a success. However, more work can be done on the scale based on its performance reported here. For example, finding the second "Perception of own contribution to executive risk decisions" factor in the scale items implies that more aspects of a decision-focused risk culture can be measured than currently included in the scale.

Conclusion

In this project, we measured the differences in perception of the executive risk culture between a bank's senior and middle management groups. Although this was not the first study related to risk culture at the bank, its novel approach to the topic allowed for a focused investigation into leadership, in particular executive risk culture. The study satisfied its research aims by providing previously unavailable information on how managers perceive executive leaders' risk culture-related behaviour, and highlighted possible areas for risk culture improvement in the bank. It also contributed to

knowledge of risk culture by providing an example of how other executive leaders can investigate their risk cultures, and provided a platform for the pilot testing of the RCLS.

Although the study was limited to a specific bank, it satisfied its aims and can be used as a basis for further research on the topic in other commercial sectors. For example, designing similar studies to investigate reasons for response rates in groups, more work on the impact of external societal cultures on bank risk decisions.

Word count: 8,392 (incl numbers in tables)
6899 (excl tables containing mainly numbers)

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REFLECTION

As described in the Article section, I am satisfied the stated research objectives have been met in 2020. After completion of the study design and approval of my research proposal by the NWU and by the organisation studied, I sent out the survey questionnaire to middle and senior managers in late August 2020, leading to the study findings described in the article. An objective of doing a master's degree is to learn to do applied research and to master the skill of performing applied research. I believe that during the past two years of conducting the research, I have learnt how to conduct applied research. This learning journey has been intense as it involved reading many journal articles, and many engagements with my supervisor and other members of the study team. The impact of the unexpected COVID-19-related interruptions on the study timeline on all the study team members cannot be over-emphasized.

The support given to this study by the bank executive as well as by senior and middle management allowed for useful applied findings. These findings are expected to contribute to the risk culture efforts of the bank due to its going through a risk culture refresher during 2020; the bank-specific results of this study are expected to aid the bank in this effort. Feedback obtained from the bank was that the risk culture efforts are still in their infancy, therefore this feedback will assist in providing a pointer to what the bank risk managers can focus on. I shall provide feedback to the executive leaders in the bank in December 2020.

As this research was conducted in my organisation, I tried to ensure that I remained unbiased in my interpretation of the findings, by observing the following tactics when analysing the results: continuously engaging with other risk professionals on their views of explaining the findings, liaising with my study supervisor on the study results, and reading articles on leadership perceptions that related to my study to evaluate my results in the context of the existing literature. The survey was also administered by the NWU, and the data analysed by an external statistician, which minimised my influence on the data and results.

During the past two years on the applied risk management journey, inclusive of writing research reports, I learnt to be resilient during confusing times when I was not exactly sure what I was doing. When conducting the research, I came across a quote that sums up my feelings at times: "Staring at a missing piece in your life makes you miss the real peace that you truly have (Maeda & Bermont, 2011).

I also learnt the following lessons during the data collection period:

- Sending mail to 3500+ participants is not possible via Outlook, as only a maximum of 500 addressees can be sent an e-mail at a time,
- Sending the mail personally provided the participants an opportunity to verify whether I was a staff member as I purported to be and to verify whether my e-mail sent regarding the study being performed and link did not form part of a cyber security banking ploy. The questions raised by staff members proved to me that the cyber security awareness programmes that the bank is running was working.
- When I sent a reminder mail, I obtained several questions and compliments regarding the study within the organisation

I intend to use my newly acquired resilience skills in my daily role as a risk practitioner within the bank. Second, I intend to be active in the bank when it comes to risk culture efforts so that I can apply some of the concepts that have learnt.

APPENDICES

Appendix A Risk Leadership Culture Scale applied in this study

NWU[®] | UARM

Risk Leadership Culture Survey (UARM RLCS-2020)

Survey explanation and consent

Dear Participant

You are invited to participate in an academic research study conducted by the Centre for Applied Risk Management (UARM), North-West University. (<http://commerce.nwu.ac.za/uarm/>)

The goal of the study is to obtain an understanding of the perceived executive risk leadership culture within [redacted].

The research question for this study is:
How do senior- and middle-management groups perceive the executive risk culture in [redacted]?

Note, please only complete this survey if you are a senior or middle manager within [redacted].

Consent to conduct the research has been obtained from [redacted] subject to the following conditions:

1. This is an anonymous survey, which means that you cannot be identified as participant in this survey.
2. Your participation is voluntary and you may exit the survey at any stage should you no longer wish to continue completing the survey.
3. The data will only be reported in aggregated format, meaning that individual responses will not be reported.
4. The organisation will not be identified in the research report.
5. Anonymised general results of the study may be published in an academic journal subject to permission from the organisation.

Note:

1. The survey consists of 3 demographic items followed by 10 risk-related items.
2. It should take you less than 5 minutes to complete the survey.
3. We would like to know what your experience of risk management in the organisation is. Please answer all the items as honestly as possible.
4. You must be at least 18 years old to participate in this survey.
5. All starred items (*) require a response.
6. Only complete the survey once.

Note: The North-West University, South Africa, owns the intellectual property to the contents of this survey.

*** 1. I am older than 18 years, have read the information above and consent to anonymously participate in this study on a voluntary basis. I also understand that I may exit this survey at any stage.**

Yes

No

Figure 1: page one of the survey that was completed

Risk Leadership Culture Survey (UARM RLCS-2020)

Perception of Risk Leadership Culture Survey

Demographic information

This section asks for information about your role in [redacted] to allow us to analyse the data against the study objectives.

This information will not be used to identify you.

Please select the option that best describes yourself.

*** 2. Division in which you are employed**

- Business Banking (BB)
- Card Payments [redacted] (CPT)
- Unsecured Lending (UL)
- Home Loans (HL)
- Retail Relationship Banking (RRB)
- [redacted]
- [redacted]
- Consumer Banking and Client Engagement
- Forex and Investments
- [redacted] Digital
- [redacted] Risk (All divisions)
- Finance
- Human Resources & Learning

*** 3. Level of your current role in [redacted]**

- Divisional Head (Divisional committee member [redacted])
- Senior Manager (Management committee member [redacted])
- Middle Manager

Figure 2: Page two of the survey that was completed

*** 4. Time employed in [REDACTED]**

Less than or equal to 1 year
 More than 1 and less than or equal to 5 years
 More than 5 and less than or equal to 10 years
 More than 10 and less than or equal to 15 years
 More than 15 years

Now, please rate how the [REDACTED] Executive Management team approaches consideration of risk when decisions are made, by selecting the most appropriate option for each item below.

*** 5. Executive managers actively consider risk when they make decisions.**

I do not know Not at all Not well Moderately well Well Perfectly

*** 6. Executive managers explain how they connect risks, opportunities and organisational objectives in their decisions.**

I do not know Never Infrequently Sometimes Usually Always

*** 7. Executive managers manage risks within the organisation's risk appetite strategy.**

I do not know Never Infrequently Sometimes Usually Always

*** 8. Executive managers are held accountable for including risk when they make decisions.**

I do not know Never Infrequently Sometimes Usually Always

*** 9. Executive managers practice what they preach on risk issues.**

I do not know Never Infrequently Sometimes Usually Always

*** 10. Executive managers ask for my input when they make decisions about risks related to my role.**

I do not know Never Infrequently Sometimes Usually Always

*** 11. Executive managers take my concerns about risk into account when they make decisions.**

I do not know Never Infrequently Sometimes Usually Always

Figure 3: Page three of the survey completed


*** 12. Executive managers actively learn from risk events to improve their decisions.**

I do not know Never Infrequently Sometimes Usually Always



*** 13. Executive managers treat staff fairly when a risk materialises (i.e. when a risk event occurs).**

I do not know Never Infrequently Sometimes Usually Always



*** 14. To improve the inclusion of risk in decision-making in [REDACTED], I believe that we must start with improving....**

(select only one of the options below - options shown in random order)

- Holding decision-makers accountable for how they included risk when making decisions
- How risk is included in decision making by groups in the organisation (group dynamics)
- Leadership: Tone in the middle about actively including risk when making decisions
- Leadership: Tone from the top about actively including risk when making decisions
- Quality of risk-related information
- Risk-based rewards (e.g. remuneration, succession planning and talent development)
- How managers communicate consideration of risk when decisions are made
- How risk is used to challenge decisions
- Risk management framework (e.g. risk appetite, functions, systems, processes, practices, data)
- Risk role clarity (i.e. clarity per role in the organisation on how to include risk when making decisions)
- How risk is understood by staff in the organisation

Figure 4: Page four of the survey that was completed