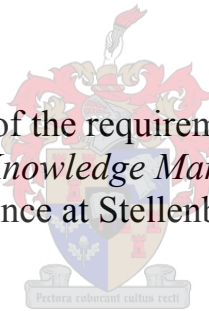


LEARNING FROM RISK: FACILITATING ORGANISATIONAL LEARNING THROUGH ENTERPRISE RISK MANAGEMENT

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Thesis presented in fulfilment of the requirements for the degree of *Master of Philosophy (Information and Knowledge Management)* in the Faculty of Arts and Social Science at Stellenbosch University



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April 2014

Declaration

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

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Summary

Modern business environments are characterized by rapid changes and organizations that are able to survive and to thrive in such environments must be able to adapt and respond to this environmental change. Risk management is an activity that strives to continuously evaluate and deal with changes to the environment. Organisational learning is the capability of organizations to evaluate stimuli from the environment, to interpret the signals and to learn. Organisational learning can thus be seen as the capability to adapt to environmental change.

First the thesis considers the concepts of risk and risk management by looking at its historical development as a discipline. The concept is situated in a broader societal perspective of the risk society in which the individual is expected to carry a much greater burden of risk, where self-criticism is an inherent feature of life and risk management is essential for everyone.

Current risk management practice has seen the establishment of enterprise-wide risk management as an extension of traditional risk management practice, which seeks to manage all the risks facing the organization, but also to manage it in an integrated manner. Increased regulation and policies, as a result of organizational failures such as Enron, has called for organizations to better manage risk in order to establish more resilient organizations and to protect shareholder value in an increasingly turbulent business environment. As a result we see development of enterprise risk management frameworks and standards. Most of these standards and frameworks recommend similar risk management activities, such as objective and context setting; risk assessment (risk identification, analysis and evaluation); risk treatment or response determination; and risk communication, monitoring and reporting.

Next the thesis considers some of the defining features of organizational learning, such as the differences between organizational learning and learning organizations, the individual and organizational perspective on learning, and the role of the individual in organizational learning. Selected organizational learning models are described that focus on scanning, interpreting and learning, and the aspects that have an impact on organizational learning, including organizational memory and mental models, organizational culture, uncertainty and ambiguity, single and double loop learning, and tacit and explicit knowledge.

Lastly the thesis identifies points of convergence in theory and practice between enterprise risk management and organizational learning. It is shown that principles and processes

governing enterprise risk management activities and techniques can be utilized as management activities to formalise and support organizational learning.

Opsomming

Die moderne besigheidsomgewing word deur vinnige veranderinge gekenmerk en organisasies wat in staat is om te oorleef in sulke omgewings moet noodwendig op omgewingsverandering kan reageer en aanpas. Risiko-bestuur is 'n aktiwiteit wat probeer om veranderinge in die omgewing deurlopend te monitor en daarop te reageer. Organisasoriese leer is die vermoë van organisasies om stimuli uit die omgewing te kan opmerk, evalueer en interpreteer ten einde te leer. Organisasoriese leer kan dus gesien word as die vermoë om by omgewingsverandering aan te pas.

Die tesis oorweeg ten eerste die konsepte van risiko en risiko-bestuur deur na die historiese ontwikkeling van die dissipline te kyk. Die konsep word gesitueer in 'n breër samelewingsperspektief, naamlik die risiko samelewing wat gekenmerk word deur 'n groter risiko las vir individue, waar self-kritiek 'n inherente kenmerk van die lewe is en risiko-bestuur vir almal relevant word.

Huidige risiko-bestuurspraktyk sluit die vestiging van ondernemingswye risiko-bestuur as 'n verlengde van tradisionele risiko-bestuur, wat poog om alle risikos waaraan 'n onderneming blootgestel is op 'n geïntegreerde manier te bestuur. Toenemende regulasie en strenger beleid, as 'n gevolg van organisatoriese skandale soos Enron, vra van organisasies om risiko beter te bestuur en sodoende meer volhoubare organisasies te bewerkstelling en aandeelhouers se waarde te beskerm in turbulente besigheidsomgewings. Die resultaat was die ontwikkeling van ondernemingsrisiko-bestuur raamwerke en standaarde. Die meeste van hierdie raamwerke en standaarde stel soortgelyke risiko-bestuursaktiwiteite voor, soos doel- en kontekstelling, risiko identifikasie, -analise, en –evaluasie, risiko behandeling of responsbepaling, en risiko kommunikasie, -monitering, en –verslagdoening.

Die tesis oorweeg van die uitstaande kenmerke van organisatoriese leer, soos die verskil tussen organisatoriese leer en die lerende organisasie, die individuele en organisatoriese perspektiewe op leer, en die rol van die individu in organisatoriese leer. Geselekteerde organisatoriese leer modelle word beskryf wat fokus op skandering, interpretasie en leer, en die aspekte wat impak het op organisatoriese leer, insluitend organisatoriese geheue en wêreldbeelde, organisasie kultuur, onsekerheid en dubbelsinnigheid, enkel- en dubbellusleer, en versweë en eksplisiete kennis.

Laastens word sameloospunte in die teorie en praktyk tussen ondernemingsrisiko-bestuur en organisatoriese leer geïdentifiseer. Daar word getoon hoe beginsels en prosesse wat ondernemingsrisiko-bestuur se aktiwiteite en tegnieke onderlê, ook gebruik kan word as bestuurspraktyke om organisatoriese leer te formaliseer en te ondersteun.

Acknowledgements

This research was made possible through the kind contributions of the following individuals:

- My parents, to whom I am eternally grateful for things too numerous to mention.
- My wife Nazreen and children Salim and Iman, who provided much encouragement, support and tons of patience and understanding.
- My supervisors Prof Hans P Müller and Dirk le Roux whose guidance and advice is very much appreciated.

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Chapter 1

Introduction

Enterprise Risk Management and Organisational Learning

1.1 Introduction: Research Statement

In recent years, one important emphasis in the management of modern business has been toward developing organisations which exhibit increased flexibility and responsiveness to environmental influences and changes. As such, the emphasis has been to create organisations which, when faced with environmental change, are able to identify the changes and adapt themselves in relation and in response to the environment. The concept of organisational learning has been the subject of academic discourse and private sector interest over many years, and has been considered as a means to developing such flexible and adaptive organisations which are able to withstand shocks and changes. Notwithstanding its academic history, and the intense level of interest in organisational learning, it has not been the subject of industry or state driven regulation.

We will organisational learning in relation to the risk management discipline, in particular, enterprise-wide risk management (ERM). Enterprise risk management practices are management activities which are geared to identifying environmental changes, internal or external, and then generating consensus in management activities towards dealing with such change. This means that all levels of the organisation are aligned and informed about the potential change.

In view of the recent corporate failures, such as Enron, Lehman Brothers and numerous others, governments across the world have now introduced a plethora of regulatory provisions to improve governance and impose strict regulation of industry. Globally there has also been an increase in emphasis on risk management activities and procedures in corporations, driven by legislation and other influential regulations such as Sarbannes-Oxley, the successive King Reports on Governance for South Africa and others. Risk management is the management of uncertainty and enterprise risk management as a management activity seeks to implement processes which identify risks, analyse them and design solutions to

manage those risks and uncertainties. It also enjoys regulatory and professional management support which significantly strengthens its role in organisations.

Recently the third edition of the King Report on Governance for South Africa was published, which strengthens the role of ERM and adds to the compliance burden of companies in order to protect investors and other stakeholders. But will compliance to these codes and standards bring about an increased flexibility and organisational learning or will it stifle the learning potential of organisations? These regulatory provisions were in any event introduced to increase rules and structural rigidity to these systems, and can it reasonably be expected to increase flexibility? Can ERM systems and processes result in generative learning, in order to deliver real and continuous organizational transformation and resilience? ERM is an ongoing, necessary set of processes. Can learning be advanced on the back of these obligatory processes or will ERM only be a matter of compliance?

Our research question relates to whether Enterprise Risk Management (ERM) could be used as a management tool to facilitate learning in organisations. The aim of this thesis is to evaluate the opportunity for enterprise risk management to go beyond compliance as a means of enhancing organisational learning. ERM is increasingly regulated due to the public failures of organisations and is accordingly of great interest to managers, regulators and stakeholders. There has also been standardisation of terminology and ERM practices which has enhanced implementation success. There is also significant commonality between the issues which affect ERM and organisational learning, including issues such as organisational culture, issues of uncertainty and ambiguity, and the dynamics of organisational change.

In the discussion of risk management in Chapter 2, we considered the historical development of the discipline as well as the maturing thereof in the form of the development of standards of practice (such as the ISO 31000:2009 Risk Management – Principles and Guidelines published by the International Standards Organisation) and frameworks such as the King Report on Governance in South Africa, published by the Institute of Directors for Southern Africa. These are not the only standards available, but they do provide a generally accepted perspective of ERM principles. Risk management has been used effectively in the financial services industries, especially the insurance industry for many years. In the face of increasing change and turbulence in the economic and social environment within which organisations operate, the need to protect and maintain stakeholder value from unexpected knocks now occupies the top spot among the concerns facing executive management of organisations.

One of the reasons for this has been the increased regulation with regard to governance of organisations, such as the King Report on Governance in South Africa.

Traditionally risk management had been practiced in silos and had focussed only on pure risk the effects of which could traditionally be insured for. Furthermore, management of the risk was effected by the unit most affected and information regarding the risk and risk environment was generally not reported to decision makers at senior levels, giving them little line of site to what was happening at these operational levels. Enterprise risk management as a discipline brings in a new perspective to the traditional practice in keeping with the increased governance requirements in numerous jurisdictions. ERM requires risk management to be viewed from an integrated, enterprise-wide perspective so that managers can gain a comprehensive view of all risks. In determining its risk universe or context, the organisation is encouraged to be as inclusive as possible. While not all the standards and framework are exactly alike, they generally promote similar risk management activities. These activities include objective and context setting, risk assessment (risk identification, analysis and evaluation), risk treatment or decision making, and communication, reporting and monitoring. Our aim is to consider the elements of organisational learning, and to evaluate whether enterprise risk management systems may be effectively used to drive organisational learning.

1.2 Risk Management

Uncertainty has been a part of human endeavour for a very long time, since time immemorial. Death has always stalked us, from the prehistoric to modern mankind. We, and all the activities we have held dear, have always been subject to the vagaries of the weather, tribal and political changes, ecological, and other events which have caused our rise and/or demise. Hunting and gathering cut short by weather changes, people, animals and crops perishing due to climate change and disease, and political and cultural upheaval brings about new changes in social and economic relations, causing certain sections of the population to gain, whilst other lose benefits.

The more modern concept of risk continues to deal with uncertainty of events which may unfold, and which will impact on our lives. The modern concept of risk has two facets, one dealing with threat, the other dealing with opportunity. Often, we only see risk in terms of the potential threat, and hardly ever recognize its potential to offer up and highlight the available opportunities. This is perhaps a cultural attribute, as the Chinese depiction of risk, seems to

best represent the complementary nature of these two elements. It is made up of two symbols, the one representing threat, and the other opportunity¹.

Risk management and its most recent variation, enterprise-wide risk management is a relatively new concept to modern management activity, having been largely utilized and established within the financial services and insurance industry. In the context of ever increasing complexity in an economy driven by interconnectedness, and interdependence, businesses and enterprises need to exhibit a high degree of flexibility and change in order to meet the constant and rapid changes in the market place. It is a continuous learning cycle, where the ability to adapt means the ability to withstand external impacts.

However, notwithstanding that risk has been a part of financial and economic activity for some time, there has been a marked increase in perception of risk across humanity. Indeed, the trend is so pervasive that some writers and academics are referring to the current epoch as the Risk Society², which is characterised by an increase in the identification of risks which financial service companies find to be incalculable, coupled with an erosion of the traditional networks and relationships of kinship, family and society relations, which had the effect of screening and warding off unwanted events. Risk Society is seen to result in the alienation and dehumanisation of the individual. In the light of this heightened perception of risk, as well as the very public failures of major corporations such as Enron and others, there has been a significant drive to improve the resilience of organisations and to protect shareholder value through improving governance and risk management practices. Thus industry and governance codes and standards of practice on risk management have been published to strengthen governance in this area.

We aim to study the ERM discipline and investigate how it has matured from silo driven practices to enterprise wide processes and the various components of regulatory and industry support it receives. While not all the standards and framework are exactly alike, they generally promote similar risk management activities. These activities include objective and context setting, risk assessment (risk identification, analysis and evaluation), risk treatment or decision making, and communication, reporting and monitoring. We consider these in relation to the processes of organisational learning in order to establish similarities between them, and to examine the potential impact that ERM processes could have on learning in the organisation.

¹ Cleary S, Malleret, T, (2006) Resilience to Risk: Business Success in Turbulent Times, Pg 12

² Beck U, 2004 Risk Society Towards a New Modernity

1.3 Organisational Learning

Organisational learning is a concept that has received much attention in academic and management circles³. Academic and management interest has been driven by the promise that organisational learning processes would increase organisational resilience and addictiveness, through creating organisations which are self regulatory and responsive to turbulent and rapidly changing environments.

The term is sometimes used interchangeably with learning organisations, although the latter is more a description of organisations which have implemented the disciplines and characteristics of organisational learning.

In looking at organisational learning we will provide an overview of the topic, looking particularly at the relationship between individual and organisational learning and the mechanisms by which organisations can be said to learn. The organisational learning concept is compared to learning organisations as discussed in various academic papers. We evaluate a simple but widely accepted model for organisational learning to depict the learning process, namely ability to conduct environmental scans, ability to interpret the information received, and the ability to effect lasting changes to organisational structures, strategies and processes.

We consider the crucial components which impact on organisational learning, including aspects such as mental models, organisational culture, and biases and heuristics. We also look at what are considered by many to be characteristics of learning cultures which organisations must exhibit if they are to be responsive to changing environments. These include topics such as the dynamics of organisational change, uncertainty and ambiguity in relation to decision making, the importance of open communication which engenders trust and first and second order learning.

Our purpose is not to provide the most comprehensive coverage of the topic of organisational learning, but to highlight the crucial components and aspect which impact on learning and which resonate with the aims and processes of ERM. We aim to establish a substrate from which to evaluate and compare ERM systems and processes to organisational learning, and to determine whether it can indeed be useful as a management tool to facilitate organisation learning.

³ Argyris, C. & Schon, D. (1978) Organisational learning: A theory of action perspective. Reading, Mass: Addison Wesley

Our argument is that ERM has now matured into a discipline well supported by normative standards, although they are not without criticism. The standards and emphasis by regulatory bodies on ERM compliance has placed the discipline very high on the agenda of management and shareholders alike. Organisational learning on the other hand has not enjoyed similar support. We also argue that the ERM processes are geared to facilitating the processes of learning, engaging in:

- environmental scanning, inter alia through objective setting, risk identification and monitoring and reporting processes;
- interpretation, through risk analysis, risk evaluation and risk monitoring processes; and
- Action, through risk mitigation strategies and planning, monitoring and reporting.

We also argue that both organisational learning share a number of aspect/characteristics which including aspects such as the impact of culture and heuristics, dynamics or organisational change, and other matters of relevance

1.4 Research Methodology

The aim of this thesis is to identify and evaluate the extent to which enterprise risk management can be used as a management activity and organisational process to facilitate and drive organisational learning. Both concepts have been topical issues for a number of years now, and have attracted much attention from academics and management practitioners alike. They are both important organisational activities and processes which are geared to help organisations improve performance and resilience through reducing the effect of uncertainty on organisational objectives. There are at first glance, a number of similarities and commonalities between the two concepts which we will seek to investigate and understand.

In order to conduct this study we will conduct a theoretical examination of the concept of organisational learning, and looking particularly for those components and characteristics which resonate with enterprise risk management. We will consider in particular those processes and elements which are regarded as crucial. These include considering a generally accepted process by which learning happens, both from an individual and organisational perspective. We also look at the aspects which affect the learning process, such as structural

and cultural issues, before we turn to those aspects and elements which are characteristic of cultures which foster and promote learning. We therefore include aspects such as the ability to conduct second order learning, communications which are open and engender trust, proactive approaches to problem solving, and embracing diversity in all aspects of the organisation, as well as managing change and decision making.

Enterprise risk management systems will also be dissected and studied in order to compare and evaluate the extent of the similarity with organisational learning, and to determine whether the processes and underlying concepts of ERM as an organisational activity is able facilitate and contribute to implementing organisational learning. We look at the concept of risk, especially relating to issues of uncertainty and perception, before we make a study of the process of enterprise risk management, which process is widely accepted by practitioners and supported by the well known standard setting bodies in the risk management arena.

While there has been much written on each of these topics, there are few discourses on a comparison between the two, especially insofar as risk management is applied to business management. The risk management discipline is well utilised in the medical and engineering environments, where risk assessments are regularly used in the context of clinical trials and studies, as well as in engineering projects. This study will exclude an evaluation as to the extent to which ERM has been implemented in organisations, or whether it has led to improvements in organisational learning. Though interesting in its own right, such a study is outside the scope of the current assignment, which is limited to a theoretical study of the concepts to determine commonalities and overlaps and to establish whether ERM can facilitate organisational learning. In the concluding chapters we will attempt to identify such other areas of study which may be taken up, and which we believe may take the discussion further. This research, therefore, is entirely conceptual in nature.

Conceptual research of this nature has to review the relevant literature of each key concept, discuss them in some structured and logical manner and before developing a perspective or perspectives on the concepts in order to develop a model or framework or argument of a normative or descriptive nature. In this thesis, we have done a selective review of the material on key concepts in relation to ERM and organisational learning that is governed by the argument that is presented. The reviews of concepts are not exhaustive or comprehensive. There are different options in this regard and the choices made in the research are motivated in the respective chapters.

1.5 Thesis Layout

In chapter 2, we will consider various aspects of enterprise risk management, its historical development as a management activity, and consider issues such as risk perception, identification and assessment of risk, mitigation, communication, and some risk management techniques which have been developed. In particular, we will explore how risk management can make businesses more pliable in the face of the vagaries of international economy, and what the essential features of such organizations are, namely decentralized, distributed authority structures where knowledge and information is shared, and the role of risk management in delivering innovation and creativity.

We will consider risk management and particularly, enterprise wide risk management systems. We will evaluate some of the techniques and activities established by the industry in its development of standards of practice, such as risk identification, risk analysis, risk mitigation, and communication. In particular we will place our emphasis on those activities which seem to enhance or diminish the learning activity.

In chapter 3 we will consider the concept of organizational learning, attempting to distinguish and discern it from the learning organisation, as well as to define the concept. We also consider the concept of learning, and how it applies to individuals, as well as to organisations. We consider the question of learning by organisations, whether they do learn and if so, how does this happen? In particular we will explore some of the concepts which are relevant to any discussion on organisational learning, such as:

- learning by individuals
- organisational learning,
- double-loop and single loop learning
- the views of some of the prominent authors on the subject of learning.

In chapter 4, we aim to explore how and in which ways the features and aspects of risk management resonate with the concepts pertinent to organizational learning and learning organisations. ERM requires that individuals in organisations evaluate and constantly re-evaluate strategic and operational objectives, in the light of new input from environment and taking into account the current resource pool within its ranks. But is it truly a learning opportunity, or does the requirements of Sarbannes-Oxley and King III Report really only

lead organisations to focus on compliance where the box is ticked but where the intended outcome of ERM as a proactive, responsive and inclusive discipline to help improve organisational governance fails?

What are the key features that will truly cause the evolution and transformation of the individual and collective, and can ERM systems play their part? We will consider how ERM systems can enhance or diminish these organisational learning disciplines. (Also, how does this relate to Weick's view on individual learning, and organisational learning?)

We will explore ERM systems in relation to adaptive and generative learning (or double loop learning), where the latter relies on continuous experimentation and feedback to examine the way organizations work. It also relies on an ability to critically analyse and question the underlying assumptions, including those which gave rise to the problems in the first place, and to reorganize and refocus should these assumptions turn out to be inappropriate. Adaptive learning or single-loop learning focuses on solving problems in organizations without examining the underlying assumptions underlying the way the organization works.

We will look at whether ERM systems give rise to adaptive or generative learning, whether it can facilitate the maintenance of such learning systems, through creating the appropriate roles for the various role players of the organization. In our concluding chapters we aim to coalesce the preceding points on organizational learning, and enterprise risk management, and attempt to conclude about the ability of ERM systems to enhance organizational learning.

Chapter 2

Enterprise Risk Management

2.1 Introduction

Businesses currently operate in an environment characterized by interconnectedness, economic and social volatility, and constant and rapid change, and accordingly the ability to make decisions, source inputs and deliver outputs happen in very uncertain circumstances. Rather than impose more structure and certainty on the environment within which business is done, it seems that the doing of business, more and more appears to resemble a continuous change cycle, where the ability to resist shocks are derived from the ability to re-organise and adapt to changing circumstances. Change is a continuous corporate activity and it is increasingly apparent that organizations ought to be engineered in a way that allows for adaptation in much the same way as organisms have adapted to survive.

It has been suggested that in order to develop this type of resilience, businesses must be prepared to “embrace paradox”⁴. Thus organisations must maintain cost-effective processes, but must also seek competitive advantage through innovation, which is known to be costly. The internal processes and governance of the organisation must be robust enough to protect stakeholder value, but must be flexible enough to allow for rapid adaptation to circumstances, also in order to protect stakeholder value, or to increase stakeholder value. The paradox referred to by Cleary and Malleret seems to be similar to the paradox of deliberateness versus emergence in strategy and strategy development proposed by De Wit & Meyer⁵. Strategy, like risk is concerned with the future, and the paradox relates to deliberately preparing and planning versus letting the future emerge and finding out about it along the way.

The drive to develop this flexibility pervades current management thought and discourse, and numerous authors have made pronouncements on this topic. Interventions to achieve this includes creating learning organisations, restructuring the organisation to a flatter, more versatile structure which avoids relationships based on power and politics, reducing divisional and knowledge sharing barriers. These features all resonate with organisational learning, learning organisations, and are promoted by the effective implementation of

⁴ Cleary S and Malleret T *Resilience to Risk Business Success in Turbulent Times* Pg 114

⁵ De Wit B, & Meyer R. 2001. *Strategy Synthesis – resolving strategy paradoxes to create competitive advantage*. Pg 55

enterprise risk management⁶. However, while these interventions are being touted, they do not appear to be implemented as easily or as widely as the statement suggests. Cleary and Malleret lament the irony that, in the face of increasingly rapid change, volatility and turbulence, there has also been a significant increase in standardization and convergence, and indeed greater regulation requiring standardisation and convergence⁷. It appears that we seek to impose stability and certainty on an environment characterised by turbulence and change, rather than try to learn to work in and structure our organisations to survive in these turbulence times.

They identify the key ingredients for success in a turbulent environment as the development of a culture of responsible risk-taking, using relevant, first rate information, skill and knowledge, as well as an ability to identify, and adapt to changes in the environment. Legal and economic dispensations across the globe have now increased the requirements for risk management procedures in corporations (eg Sarbannes-Oxley, King Code of Corporate Governance) in the hope and expectation that this will provide greater protection to stakeholders and increase the resilience of these organisations. But will compliance alone bring about an increased resilience, or will it simply impose greater rigidity, thus reducing the responsiveness of these organisations?

In this chapter we intend exploring enterprise risk management as an organisational activity, with the purpose of looking for those commonalities and synergies with organisational learning. Our intention is to evaluate the utility of enterprise risk management as an activity fostering organisational learning, to identify where it facilitates learning, and why. We will be considering the various processes of risk management, including identification of risk, risk assessment, mitigating risk, and risk communication, as well as some of the pertinent issues affecting enterprise risk management.

2.2 Historical Development of the Concept of Risk

Modern risk management has gone through a variety of stages from a period when there was an acceptance that we survived at the behest of the elements, which could be as fickle as they could be cruel. Crops could fail, droughts and storms could ravage the countryside, or pestilence and disease could destroy people and livestock. People of course knew that they

⁶ Cleary S and Malleret T Resilience to Risk Business Success in Turbulent Times Pg 121. Indeed, according to these authors, organizational resilience is the goal of risk management.

⁷ Cleary S and Malleret T Resilience to Risk Business Success in Turbulent Times Pg 123. This includes compliance to the plethora of market standards and norms such as ISO standards, etc.

were living with risk, but large scale use of mathematics and science that was available at the time was not used in order to render greater certainty with regard to daily activities of ordinary humans, possibly because it was regarded as the domain of God. Notwithstanding that the development of mathematics and various branches thereof, such as algebra and astronomy took place earlier under the Islamic empire, it was only much later, during the Renaissance of the 15th Century when the application of mathematics and probabilities in particular came to be applied to human activities⁸.

Over the pursuant centuries, to the current one, there has been a lot more study into the topic of probability and a large body of literature has been developed on it and related topics. Various concepts, theorems and laws have been postulated, proved and disproved including the Law of Large Numbers, the concepts of normal distribution, personal utility, the distinctions between risk as measurable uncertainty and true uncertainty which cannot be measured and so forth. The knowledge and learning generated during this period was held in high esteem since the Renaissance, and was seen as a mechanism to, not only understand the world in which we live, but also to render greater certainty around the risks impacting on and from human endeavour. Great strides have been made in developing knowledge and understanding of our world, and this seems to have generated greater confidence in the ability of mathematics and science to understand and render the world to greater control and certainty of outcomes.

This confidence which had been built up around the potential of mathematical logic to resolve problems and advance human endeavour became unravelled by the trauma and horror of the First World War⁹. However, the study of risk management continued to look towards the management of uncertainty through the application of mathematics of probability, in the hope of reducing the level of uncertainty within which businesses had to operate. Later however, economists also started to recognise that the consequences of risk taking were crucial components to ensuring the maintenance of productivity and responsible, socially acceptable behaviour from industry and corporations, and that whilst we seek mathematical certainty with regard to the risks we face, we ought also to recognise that life is essentially uncertain¹⁰.

⁸ Cleary S and Malleret T Resilience to Risk Business Success in Turbulent Times Pg 20

⁹ Cleary S and Malleret T Resilience to Risk Business Success in Turbulent Times Pg 25, 26

¹⁰ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks Pg 31; Cleary S and Malleret T Resilience to Risk Business Success in Turbulent Times pg 29, 30

In the aftermath of the Second World War, with the establishment of the World Bank¹¹ and International Monetary Fund (IMF), there sparked renewed interest in science and mathematics, and especially those relating to forecasting, which also came to be sought after in the financial services industries. As the development of the debate progressed, concepts such as the portfolio theory, prospect theory¹² were developed and refined. And then notwithstanding the phenomenal progress made in the mathematics and computers and software, no-one prevented or timeously predicted the financial and economic meltdowns of the late 1990's¹³. So, while increases in knowledge led us to understand our world a bit better, we could not foresee and prevent failures, or manage without significant distress the kind of failure that results from or economic and social activities. And so, while mathematics and probability theories had tried to impose some certainty in the outcomes of human activities, it has come to be recognised that risk and uncertainty are an inherent part of life which are essential for the maintenance of productivity, and the attempts to remove uncertainty from the equations of life are impossible.

2.3 Maturing of the Risk Management Environment

While risk management has been practiced for a long time, including as a recognised discipline in business and organisations worldwide, it has largely been structured on a silo approach, where specific risks are management within specific departments or business units where they typically arise or have an impact¹⁴. Increased globalisation, increasing emphasis on improving governance within organisations to ensure shareholder value, and greater reliance on intangible assets and the risks which are attendant on them, have identified a need a more integrated approach to managing risk, so that the executive management and management can know and deal with these risks effectively¹⁵. Enterprise risk management, as distinct from traditional approach to risk management seeks to provide for this integrated risk management practice.

Enterprise risk management is risk management but a more inclusive, comprehensive and proactive variety¹⁶. Comprehensiveness suggests that risk management should cover all

¹¹ The then International Bank for Reconstruction and Development

¹² Kahneman D, Tversky, A (1979) Prospect Theory: An Analysis of Decision under Risk

¹³ Cleary S and Malleret T (2006) Resilience to Risk Business Success in Turbulent Times pg 39

¹⁴ Institute of Management Accounting 2006 Implementing Enterprise Risk Management, pg 6. Also see Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks Pg 87

¹⁵ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks Pg 77

¹⁶ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks Pg 11

activities of the organisation, all people and processes to give an overall view to the executive management. Management can be proactive by identifying risks up front and then by instituting ways of monitoring and mitigating those risks, that is, it becomes an integral part of the routine general management of the organisation. As the practice of risk management has matured over time, and to respond to increasing regulation in the market to implement and improve risk management practice by organisations, there has been an increased focus on the establishment of protocols, frameworks and standards by risk management practitioners, and regulatory bodies.

The Institute of Risk Management (IRM), The Association of Insurance and Risk Managers (AIM) and the National Forum for Risk Management in the Public Sector (Federation of European Risk Management Associations) has published a standard of risk management practice, under the heading “A Risk Management Standard”¹⁷. The standard had been developed through an inclusive process of collating inputs from organisations and professionals within the risk management discipline, and was designed not to prescribe requirements, but rather as best practices against which organisations could measure their level of compliance¹⁸. There are other standards which have also been developed, such as the framework developed by the Committee of Sponsoring Organisations of the Treadway Commission (COSO)¹⁹, as well as the subsequent standards set by the International Standards Organisation (ISO)²⁰.

The Institute of Directors of Southern Africa have published the King Report for Governance in South Africa²¹ (King III Report), to promote corporate governance, which also contains a chapter on risk management, and accordingly considers it to be an important component of governance²².

¹⁷Federation of European Risk Management Associations (2003), A Risk Management Standard. The standard sets out issues such as terminology, risk management processes, objectives and organization structures for risk management.

¹⁸Federation of European Risk Management Associations 2003 A Risk Management Standard, pg 1

¹⁹ Committee of Sponsoring Organisations of the Treadway Commission, (September 2004) Enterprise Risk Management – Integrated Framework,

²⁰ International Standards Organisation, ISO 31000:2009 Risk Management – Principles and Guidelines; International Standards Organisation ISO/IEC Guide 73 Risk Management – Vocabulary – Guidelines for the use in standards

²¹ Institute of Directors in Southern Africa King Report on Governance For South Africa 2009

²² As do other publications on governance, such as the Turnbull report, Sarbannes-Oxley and others

The King III report makes a number of recommendations²³, including that:

- executive management is responsible and oversees the practice of risk management;
- management is accountable for designing, managing and monitoring the risk management system;
- risk management must be integrated into the day to day activities, implying that it applies at all levels of the organisation;
- it must be incorporated into the language and culture of the organisation;
- risk management processes must be systematic and document assessments of processes;
- managers should monitor and regularly report to the executive on implementation of risk management.

The International Standards Organisation (ISO) has developed a standard to establish an accepted terminology in risk management, whilst encouraging diversity of standards from different standard setting bodies²⁴. The ISO standard was not developed for certification purposes, but is designed for application by any organisation, or components thereof, at any level or different activities or projects within the organisation. It recognises the diversity of organisational activities and types, and promotes that risk management plans and activities must be structured in accordance with the maturity and nature of the organisation, whilst also developing common terminology and best practices with respect to risk management processes²⁵. As the more recent standard, and in view of its status as an international standard, the organisations such as IRM have realigned their own standards in line with the terminology and standards of the ISO. The COSO framework, published in 2004, has more applicability in the United States, having been aligned to the Sarbanes-Oxley requirements, whilst the ISO 31000, was published in 2009 as an international standard²⁶.

The availability of alternative standards represents a maturity within the environment and the risk management discipline and in our view can be a useful development. It emphasizes a yardstick to which organisations must measure themselves and particularly the organisational

²³ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks Pg 75. The above is not an exhaustive compilation of King III recommendations.

²⁴ ISO 31000 First Ed Risk Management – Principles and Guidelines; ISO/IEC Guide 73 Risk Management – Vocabulary – Guidelines for the use in standards

²⁵ ISO 31000 First Ed Risk Management – Principles and Guidelines Pg 1

²⁶ The Association of Insurance and Risk Managers (AIRMIC), The Public Risk Managers Association (ALARM) and The Institute of Risk Management (2010), A Structured Approach to Enterprise Risk Management (ERM) and the requirements of ISO 31000 pg 3

routines which must be complied with to protect value on behalf of the stakeholders. On the other hand, the emphasis on compliance with industry and societal governance requirements such as the Turnbull and King Reports also has a darker side. Managers and board's charged with the implementation of the practice of risk management may, in the face of increasing pressure to perform and increase value, view the imposition of risk controls and additional review and reporting responsibilities as red tape and an administrative burden, rather than an opportunity to identify positive and negative aspects affecting growth. From the perspective of compliance, good systems have been developed to demonstrate compliance with the stipulated risk management requirements, but these have not taken into account the "human factors" which can impact on how individuals view risk²⁷. This means that risk managers and auditors can tick the boxes that the forms have been observed, but the true impact on the individual in terms of how they perceive their environment and risks flowing from organisational activity is not really dealt with in detail which will in its turn impact on his conduct and affect the behaviour of the organisation.

Risk management practices and learning have to some extent been discussed in the literature. McCann looks specifically at using learning frameworks to improve risk management practice in capital projects environment. Other studies where learning has been emphasized include in the arena of occupational safety and in crisis management. It appears that risk systems dealing with occupational safety and hazards do not take into account the cultural processes which may impact on the way risks are perceived and behaviour is amended to minimise and prevent accidents and hazards²⁸. The link between risk management and learning has also been considered in approaches of project risk management. Here the approach has been more driven to determine how learning approaches could be used to improve risk management practice using a learning approach in projects²⁹.

2.4 The Nature of Risk

The concept of risk has always been known and considered, from enquiries like "what is the probability of rain, in which case I should take an umbrella" to "what are the chances of floods/pestilence destroying my crops and what would I need to do to prevent it or reduce the damage". It is always speculative and based on potential events that could arise.

²⁷ McCann, C Evidence for Organisational Learning in Local Authority Capital Projects, Pg 38

²⁸ Specht, M, Chevreau FR, Denis-Remis (2006) Dedicating Management to Cultural Processes: Towards and Human Risk Management System Pg 537,

²⁹ McCann, C Evidence for Organisational Learning in Local Authority Capital Projects, Pg 28

While there has been an increase in knowledge and the tools of learning, and an increase in confidence of mathematical modelling techniques, we have not seen a reduction of uncertainty or in allowing us to better control and direct it³⁰. It has not had the expected outcome of having greater certainty with regard to the outcomes of our actions. The concept seems to be known more from the perspective of danger or threat, notwithstanding that the modern concept can relate to both threat and opportunity³¹. With the passage of time, the risks we face have changed as the fabric of our society has changed. While there was the threat of disease and sickness, especially in urban environments, there have been great strides in research to eradicate these types of scourges. But there also appears to be an increase in systemic risks which are applicable globally, such as terrorism and global advocacy, climate change and protection of consumers.

While business and societies of old did not have to deal with terrorism, increases in oil prices, or the effects of a booming Chinese economy, it still had its own challenges of pandemics and problems. However, there appears to be a heightened perception of risk pervading our society today largely due to an increase in intolerance for risk and uncertainty, which intolerance is attributed to increases in wealth and education in society³². Furthermore, the interconnectedness of the entire global system means that any risk can spread far more quickly than it could previously, and can have a dramatic impact on the entire system, generating more uncertainty and making the same risk appear more impactful³³.

So we need to be constantly vigilant about the environmental changes and the changing risk profile of society and organisations we work within. Risk affects everyone, and it is also becoming more apparent that society is becoming more aware of risk and people have to manage their lives constantly taking into account various risk issues. Below, we set out some of the characteristic features of the concept.

2.4.1 Pervasiveness of the risk concept

The concept of risk and the management of risk have taken on a pervasive quality in society, requiring most organisations and businesses to comply with governance requirements to

³⁰ Beck U, Giddens A, Lash S, 1994 *Reflexive Modernisation: Politics, Tradition and Aesthetics in the Modern Social Order* Pg 184

³¹ Valsamakis AC et al, (2005), *Risk Management Managing Enterprise Risks* Pg 26. Here the authors show a variety of definitions which depict risk as uncertainty in relation to hazard, perils or financial loss. See also Cleary S and Malleret T (2006) *Resilience to Risk Business Success in Turbulent Times* pg 11

³² Cleary S and Malleret T *Resilience to Risk Business Success in Turbulent Times* pg 46.

³³ “Interconnectivity exponentially increases uncertainty” Pg 48

implement risk management activities to give assurance to investors. The concept is not only of relevant to activities conducted at business and industry level, but has also been a part of a discourse at a much wider societal level. Indeed, according to a number of sociologists like Beck, Giddens, Lash³⁴ and van Loon³⁵, focussing as they do on the nature of socio-economic change and the impact on the individual, the advent of the knowledge-based economy has resulted in increasing individualisation, with more obligations and rights flowing downwards and attaching to the individual. These pressures and risks would ordinarily be carried and facilitated by communities, or families and governments, but are now increasingly being placed on the shoulders of the individual. The individual, who is increasingly requested to live and make decisions the outcomes of which are inherently uncertain and unpredictable now, more than ever feels increasingly alienated³⁶.

Thus, more and more the attitudes and the conduct of the individual become centred on risk. This risk society phenomenon is an automatic outcome, and is considered to be the result of the successes of the current social order. It suggests that modernity has reached the limits of its development and represents the breakdown of that epoch³⁷. In other words, the success of the social order carries the seeds of its own demise³⁸. This perspective is interesting in that the advent of risk and the burdening of the individual with risk represents the end of the era and is the harbinger of change. In much the same way, in the practice of risk management, risks represent fracture lines (the cause of concern and uncertainty) between the organisation (in its objectives and operations), and the environment in which it operates. Risks, while they arise from the operations of the organisation and its interaction with the environment, can also be seen as the precursors to changes in the organisation to realign it to the environment. This is also in line with the perspective of Tsoukas et al that organisations are not static, but emerge from the way it changes in relation to its interaction with the environment³⁹.

Through our ongoing individual and organisational activity, the risks we are generating seem to have the potential for catastrophe and which we have no means of calculating the effects

³⁴ Beck U, Giddens A, Lash S, 1994 *Reflexive Modernisation: Politics, Tradition and Aesthetics in the Modern Social Order*

³⁵ Van Loon J, (2004) *Risk and Knowledge* Pg 54

³⁶ Beck U, Giddens A, Lash S, 1994 *Reflexive Modernisation: Politics, Tradition and Aesthetics in the Modern Social Order* Pg 7, 10. Also Van Loon J, (2004) *Risk and Knowledge* Pg 60

³⁷ Van Loon J, (2004) *Risk and Knowledge* Pg 59

³⁸ Beck U, Giddens A, Lash S, (1994) *Reflexive Modernisation: Politics, Tradition and Aesthetics in the Modern Social Order* Pg 2

³⁹ Tsoukas H & Chia R, (2002) *On Organisational Becoming: Rethinking Organisational Change* Pg 577 – 578.

of. These risks can include those related to global warming, genetic engineering, HIV and AIDs pandemic and others. Organisations like medical insurance companies reorganise themselves in the face of these risks, by valuing the risks and then developing insurance products which are sold and by which the impact of these risks could be shared. These insurance products are the predictable outcomes which are achieved by sharing the risk with the individual⁴⁰. But in the face of incalculable risks, that is, where systems of valuing and controlling risks do not keep pace with systems of noticing or anticipating risk⁴¹, insurance companies are unable to insure against these risks and the individual is increasingly on his own.

While noting that we now have a heightened perception of risk, van Loon⁴² discusses how risks are perceived on the basis of his model using a triad of elements, being visualisation, signification and valorisation. Perceived risk is risk that has been visualised or revealed. This element may be similar to risk identification. Signification refers to adding flesh to the risk to make it meaningful to the person, organisation or society at large. This interpretation can be likened to analysis of the risk, to determine its relative importance. Valorisation is the attribution of value to the risk, and especially a value which we all commonly accept and agree upon⁴³.

However, the nature of the risk society is that it forces everyone, every actor, even the supposedly passive actor to play his/her part in the dealing and management of risk. As a result of the increased emphasis and focus on risk and the potential effects it may have, everyone becomes self critical of their own actions, their roles and the roles and actions of others, always second-guessing and countering the potential effects and consequences, in the eternal quest of ensuring the meeting of objectives⁴⁴. We have become more aware of the risks that face us. Risk management is an accepted part of organisational and individual behaviour, and is useful in that it drives towards generating a cultural acceptance of the risk and the potential outcome.

⁴⁰ Van Loon J, (2004) Risk and Knowledge Pg 59

⁴¹ Van Loon J, (2004) Risk and Knowledge Pg 59, 60

⁴² Van Loon J, (2004) Risk and Knowledge Pg 61

⁴³ Van Loon J, (2004) Risk and Knowledge Pg 61-62.

⁴⁴ Beck U, Giddens A, Lash S, (1994) Reflexive Modernisation: Politics, Tradition and Aesthetics in the Modern Social Order Pg 11

2.4.2 Risk as uncertainty

Risks are not real as they represent a possible future state. Since risks deals with potential events, which have not been actualised yet, its extent cannot be fully grasped nor its consequences fully gauged⁴⁵. It is not real, but is referred to by Giddens et al as a “manufactured uncertainty”⁴⁶, and by van Loon⁴⁷ as “virtual”. It is largely considered from the economic and financial perspective and is afforded an economic value insofar as the risk impacts on the outcome of economic activity of individuals or organisations⁴⁸. Only through the notion of probability can it be understood, and through concepts such as scenarios can it be organised. It is characterised by its potential to prevent meeting objectives or to benefit them. Indeed the following quote suggests that the concept of risk increases the uncertainty for the individual.

*“Risks flaunt and boast with mathematics. These are always just probabilities, and nothing more, however, which rule nothing out.”*⁴⁹

Risk relates to the uncertainty which we associate with the possible future outcomes which emanate or impact on our activities. From the perspective of business it is related inherently to the return an investor consider he/she will receive in compensation for the risk. Hence an entrepreneur may go into a high risk venture purely because she sees an opportunity for high returns.

Different standards also have different definitions of risk. ISO/IEC Guide 73 defines the concept of risk as being the *effect of uncertainty on objectives*⁵⁰. Objectives refer to aspects such as financial, environmental goals and can also apply at all levels of the organisation, whether strategic, operational, project or enterprise wide. It characterises risk as being a combination of the probability and consequences of an event⁵¹. The definition of risk is

⁴⁵ Beck U, Giddens A, Lash S, (1994) Reflexive Modernisation: Politics, Tradition and Aesthetics in the Modern Social Order Pg 9; Also see Spencer Pickett, KH Enterprise Risk Management, A manager’s Journey, Pg 55

⁴⁶ Beck U, Giddens A, Lash S, (1994) Reflexive Modernisation: Politics, Tradition and Aesthetics in the Modern Social Order Pg 184

⁴⁷ Van Loon J, (2004) Risk and Knowledge Pg 59

⁴⁸ Van Loon J, (2004) Risk and Knowledge Pg 58

⁴⁹ Beck U, Giddens A, Lash S, (1994) Reflexive Modernisation: Politics, Tradition and Aesthetics in the Modern Social Order Pg 9

⁵⁰ ISO 31000 First Ed Risk Management – Principles and Guidelines Pg 1

⁵¹ Institute of Risk Management A Risk Management Standard, Pg 2

consistent with the view that it may be both positive and negative in consequence, that is, it could be presented as an opportunity or a threat.

Risk is thus defined in relation to uncertainty⁵². Uncertainty flows from the situation where the decision maker does not know, or have sufficient understanding or information to determine with certainty what the outcome of his action or decision will be. Uncertainty can also be measurable (where the probabilities can be calculated) or immeasurable (where probabilities are unknown). The uncertainty of the outcomes of a given situation is what gives rise to risk. This being the case, the essence of risk management (or maybe uncertainty management) is to use the tools we have developed to reduce the extent of immeasurable uncertainty and to increase the extent of measurable uncertainty⁵³. Risk has also been linked to innovation in that innovation is driven by the need to enhance the competitive edge of the enterprise, thus reduce the risk of competition faced by the enterprise.

2.4.3 Risk as a matter of perception

The risk/uncertainty link has occupied academic thought for some time, particularly relating to the effect of risk and uncertainty on decision-making. These studies relate to how individuals perceive risk and accordingly how they respond to situations of risk⁵⁴. How different individuals respond to risk situations depends to a large extent on cultural factors such as experience, wealth, status and upbringing, and even these perceptions are not fixed but can be overcome by group dynamics and group decisions relating to what should be regarded as risks to the organisations objectives. So risk perception in the individual is not fixed and can change through interaction with groups and dynamics of organisational culture.

This changing nature of risk perception aspect was also described in Prospect Theory⁵⁵, and which postulated, inter alia that the individual will exhibit risk seeking behaviour in an attempt to avoid losses, but in the face of a sure thing, that is to make a gain, they would exhibit risk avoidance/aversion behaviour⁵⁶. This finding differed from previous theoretical perspectives which depicted the behaviour of a rational person (making decisions objectively) and thus showed that when taking decisions based on risk, people did not act as a rational

⁵² Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks Pg 30...

⁵³ Cleary S and Malleret T (2006) Resilience to Risk Business Success in Turbulent Times pg 16. Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks Pg 32, describes the modern concept of risk as being akin to “absence of certainty where certainty represents.....only one possible outcome”

⁵⁴ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks Pg 40.

⁵⁵ Kahneman D, Tversky, A (1979) Prospect Theory: An Analysis of Decision under Risk 263-291

⁵⁶ Kahneman, D (2012) Thinking, Fast and Slow Pg 334

person would. It was found that, when taking decisions, people took mental shortcuts by employing certain heuristics, based on different biases. Heuristics are learned behaviours or rules of thumb which allow us to make sense of complex reality by focussing on the limited information we can process from what is available. Typical heuristics which distort the way we perceive risk include the following:

Availability	We tend to interpret any story through the lens of a superficially similar account
Confirmation Bias	We glibly underpin an assumption by focussing on instances that confirm it, while ignoring those which don't
Overconfidence	We see ourselves as always being right – or at least more often than other people
Anchoring	We tend to cling mentally to any number we hear in a particular context, even if it is factually off the mark
Representativeness	We judge the substantial similarity of things based on their superficial resemblance.

Figure 1 Heuristics as cognitive distortions⁵⁷

Because of the availability bias, we are predisposed to see similarities with events or circumstances when we can remember a recent similar event or when we see it sensationalised in the press, and we would be more likely to consider it a higher risk. As a result of the confirmation bias, after we have made decisions about a particular risk cause, we will tend to look only for factors confirming our already made decision, while ignoring ones which deviate. Overconfidence also creates the tendency to undervalue the other view in favour of our own. Anchoring suggests that we tend towards familiar positions and our decisions will also be based on these familiar positions, and can be based on prejudices, past history and strategies to which we may be emotionally tied. Through representativeness, we will associate an event or thing with others which are vaguely similar, latching onto shared characteristics and ignoring many others which may define such an event differently⁵⁸. As a result, the way people manage risk differs due to culture, experience and preferences and these manifest errors in a framing risks, defining content of risk, and calculating probability and impact⁵⁹.

⁵⁷ Cleary S and Malleret T (2006) Resilience to Risk Business Success in Turbulent Times pg 62

⁵⁸ Kahneman, D (2012) Thinking, Fast and Slow Pg 420-430; See also Cleary S and Malleret T (2006) Resilience to Risk Business Success in Turbulent Times pg 62 – 64.

⁵⁹ Cleary S and Malleret T (2006) Resilience to Risk Business Success in Turbulent Times pg 71

These heuristics and biases are useful because they seek to establish a coherent story from the available information and thus allow for quick, intuitive decisions when all the relevant information needed to make the decision is not available or when the quality of the information is doubtful. However, the heuristic distorts the risk and the resultant decision is not necessarily the correct one, but it does allow for a decision to be made confidently. The consistency of the information is important for the story, not the correctness or the completeness of it⁶⁰.

In application, risk is associated with the concepts of probability of its occurrence, and the likely impact it would have. However, when making decisions, we do not do so dispassionately and when weighing up choices based on risk, we also are affected by emotion, bias, and beliefs which impact on the way we evaluate the two aspects of probability and impact. In particular we make certain choices based on our perception of control, and accordingly have a greater regard for those risks we believe we have no control over, than those over which we have control.⁶¹ This leads us to take seriously those low probability, but high impact risks, such as an act of terrorism, while we will underestimate a high probability but high impact risk, such as a motor car accident. This is presumably on account of the fact that we believe we have control of the vehicle. From the perspective of risks and risk management, what we consider or choose as risks are susceptible to these biases and heuristics and accordingly can become distorted. Thus while risk may be pervasive and endemic in all societies and cultures, that way it is perceived is inherently subjective.

Risks are virtual and future abstractions of reality, and are similar in nature to perceptions and knowledge. Risk, because of its virtual nature, requires some basis to be used to interpret and imagine a potential future state⁶². But when individuals get together to identify future risks, on which basis do they decide or determine what presents as a risk to the objectives of the organisation? They use their knowledge of the environment, the objectives and the organisation and, in conjunction with the information being feedback from the environment, make interpretations about future events. Decisions are made on the basis of this knowledge, which relate to how the organisation ought to and will respond and whether they should do something or indeed nothing should they come to pass. Risks are of little consequence to the

⁶⁰ Kahneman, D (2012) *Thinking, Fast and Slow* Pg 87.

⁶¹ Cleary S and Malleret T *Resilience to Risk Business Success in Turbulent Times* pg 59.

⁶² Van Loon J, (2004) *Risk and Knowledge* Pg 60

organisation unless they are accompanied or followed by actions or decisions relating to them.

2.5 Risk Management

The ISO 31000:2009 and Guideline 73 introduces some other changes to the definitions and traditional terminology of risk management. The ISO 31000 standard, read with Guide 73 defines risk management as “*coordinated activities to direct and control an organisation with regard to risk*”⁶³.

The following diagram shows the relationship between the components of the ISO 31000:2009 framework for management of risk⁶⁴:



Figure 2: Relationship between the components of the framework for managing risk

The Institute of Risk Management (IRM) standard views risk management as a process “*whereby organisations methodically address the risks attaching to their activities with the goal of achieving sustained benefit within each activity and across the portfolio of all activities.*”⁶⁵ The IRM standard also confirms that the process of risk management is a continuous one running through strategy development and strategy implementation, and must be embedded into the cultural and management processes of the organisation.

Enterprise risk management differs from traditional risk management in that, inter alia the latter approach seemed to focus on pure risk for which the organisation could be insured.

⁶³ D Gjerdrum, & WL Salen 2010 The New ERM Gold Standard: ISO 31000:2009 pg 44

⁶⁴ ISO 31000 First Ed Risk Management – Principles and Guidelines Pg 9

⁶⁵ Institute of Risk Management, “A Risk Management Standard” Pg 2

Enterprise risk management (ERM) is characteristic of some of the following features⁶⁶, amongst others:

- that it is characterised by continuous actions which are intrusive into all aspects of the organisation, including strategies, objectives, processes, etc
- that it applies to all units and parts of the organisation, and all units are responsible for managing risk;
- that it recognises positive risk in the form of opportunity;

The following table outlines some of the differences between the traditional approach and enterprise risk management.

Conventional Approach	Enterprise Wide Approach
Fragmented	Integrated
Negative	Positive
Reactive	Pro-active
Ad hoc	Continuous
Cost-based	Value-based
Narrowly-focussed	Broadly-focussed
Functionally driven	Process-driven

Table 1 Differences between the conventional and enterprise-wide approaches to risk management⁶⁷

Thus the traditional approach favoured a silo approach, managing risk where it impacted or affected the organisation, and executive management really could not get an integrated view of risk across the organisation⁶⁸. This silo approach, as we will also encounter in the chapter on learning is one of the barriers to effective learning in organisations. We suggest that by overcoming a silo approach to risk management as is inculcated in the ERM approach, the benefit will also accrue to learning.

2.6 Enterprise Risk Management (ERM)

2.6.1 ERM frameworks

Notwithstanding that there are different standards, in general, the different organisations and standards promote the same basic steps and activities of risk management. The ISO

⁶⁶ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks Pg 80

⁶⁷ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks Pg 80

⁶⁸ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks Pg80

ISO 31000:2009 standard requires that the risk management process of the organisation should take into account its maturity, and in particular the design of its business processes, and must be integrated into management processes, and embedded into the culture and practices of the organisation. Figure 2, reproduced from the ISO 31000:2009 standard identifies the risk management sub-processes as follows⁶⁹:

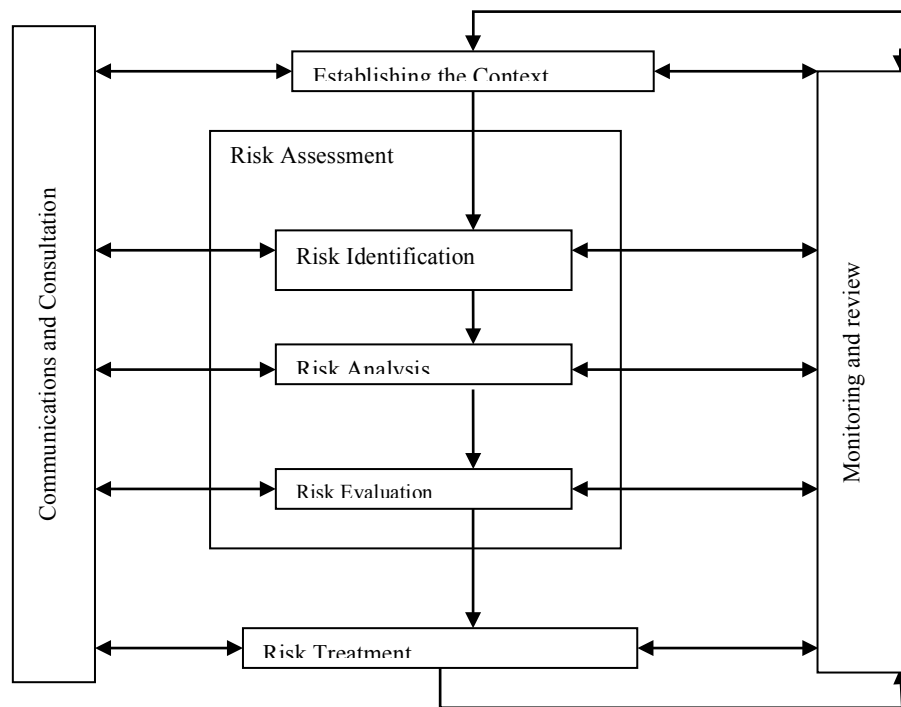


Figure 3 Risk Management Process

The ISO standard also shows that communications and consultations as well as Monitoring and review are an inherent component running through and impacting on all the above sub-processes. Accordingly consultation and monitoring must take place during all components of the process.

The COSO framework sees the objectives of the organisations as the one dimension to be considered, including strategic, operations, reporting and compliance. Other dimensions include the internal environment and the third includes all levels of the organisation, whether entity, subsidiary, or business unit etc.

Many of these frameworks and standards on enterprise risk management (ERM) have similar points of view with regard to management of risk, and processes of ERM and it is not our

⁶⁹ ISO 31000 First Ed Risk Management – Principles and Guidelines Pg 14

intention to discuss or set out all of them here, but simply to show that there seems to be general agreement on the principles, frameworks and processes for risk management.

2.6.2 ERM Process

Organisations and enterprises are established towards a particular purpose, and establish strategies and plans for the furtherance of those objectives. Risk management is part and parcel of those plans, as it represents an attempt to live with and manage the uncertainties and risks which are thrown up as people and organisations strive to achieve their objectives that is as they go about their business. Risk cannot be avoided and the acceptance of risk allows us to generate value (reward). Risk management is accordingly “to optimise the balance between the opportunities we unlock by taking risks, and the cost of the protection needed if we are to survive the occasional mishap”⁷⁰.

Organisations are about people and relationships between people. As a result of these relationships, the nature of people, and they way they learn, and make decisions have a great effect on organisations⁷¹. Aspects such as risk and uncertainty impact heavily on organisational activities such as decision making and other organisational activity. How we perceive risk is an aspect of culture, and an outcome of family, background, experience, position and so forth. Attitude to risk or how these risks are perceived can be amended, because it is reliant on cultural input, and they can change due to interactions with other people, or groups, that is, these attitudes can change through learning.

Risk management, and enterprise-wide risk management in particular is a comprehensive and structured approach to managing uncertainty. It relies on cyclical and regular processes for the identification and evaluation of risks which could impact on the objectives. Since organisations are very different in their strategies, structures, people and processes there is no one size fits all for risk management frameworks. Thus the ERM frameworks are couched broadly to make them more flexible and organisations can adapt and tailor them for application within its own organisational context based on management philosophy, culture, industry and size⁷². In reality however, most organisations approach risk management in a fragmented manner with different components of the business taking responsibility of specific risk areas. The management and oversight functions can then also be impacted by

⁷⁰ Cleary S and Malleret T (2006) Resilience to Risk Business Success in Turbulent Times Pg 76

⁷¹ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks Pg 41

⁷² Institute of Management Accountants (2006) Enterprise Risk Management: Frameworks, Elements and Integration Pg 14

this silo effect, leading to disparate initiatives and technologies which ultimately reduce the effectiveness of the risk management initiative as a whole⁷³.

2.6.2.1 Organisational Context and Objectives

Organisational context frames the governance environment and the tone with which ERM is approached in the organisation. In terms of the ERM standards, it reflects the governance requirements at an industry level, is a reflection of the commitment from senior management and board level, and also reflects the organisations appetite. The risk management philosophy acts as a cultural control, informing people of the behaviour and activities which are acceptable and which risks are acceptable in the pursuit of organisational objectives⁷⁴. Support at senior management level also encourages and enhances the effort of middle managers in the implementation of risk management. This aspect of the ERM process is driven to establish and embed the cultural outlook of the organisation in relation to risk. It also presupposes that the organisation knows or has an established strategic objective, and which objective may be disrupted by the risks identified. There is the view that the implementation of risk management practices is a question of observing the letter rather than the spirit of ERM. In spirit, ERM is focussed on the strategic objectives, and is used to improve performance and increase value for stakeholders. However in practice managers and practitioners of risk management seem to focus mainly on complying with the standards and the many legislative and industry compliance requirements, which fail to register improved organisational performance or value⁷⁵.

Organisational contexts are different for different organisations. Accordingly, as each organisation will have different objectives, cultures and organisational structures, the context within which the organisation exists and in which ERM is implemented will be different for each. Understanding the context is crucial in understanding the stresses and strains, the issues and complexities which will impact on the organisation and its objectives. By identifying and documenting the context, the organisation and its objectives, the constraints, risks and opportunities are better understood and the ERM process is more effectively conducted. At this point it is also an ideal opportunity to consider the ongoing relevance of the organisation, its objectives and other components of the context.

⁷³ Ernst & Young Managing Risk Across the Enterprise. ERM: Getting Started Guide V4.1

⁷⁴ Institute of Management Accountants (2006) Enterprise Risk Management: Frameworks, Elements and Integration Pg 16

⁷⁵ Also see Sharmin R, Copnell T Performance from conformance The Practical Application of corporate governance and risk management, Pg1

The ISO 31000:2009⁷⁶ standard refers to this component as Establishing the Context, wherein the aim is to describe, and understand the objectives of the organisation and also, in comprehensive the external and internal context of the organisation and how this relates to its scope and risk criteria. Components of the external and internal⁷⁷ contexts are set out below:

External Context	Internal Context
Social, cultural, political, legal, financial, technological, economic, natural, competitive environments	Governance, organisational structures, roles
Trends and other forces	Strategies and policies, standards and guidelines
Stakeholders and their perceptions	Organisational or project objectives
	Capabilities and other resources
	Stakeholders and their perceptions (duplicate of the external perceptions)
	Organisational culture
	Information flows, and systems

Figure 4 External and internal contexts

The IRM Standard describes this component as the Strategic Objectives component, and similarly it holds that the internal and external factors are regarded as key drivers of risk in organisations⁷⁸. However, the emphasis appears to remain on the risk itself, rather than look at the environment and context within which the organisation plays out its objectives.

The COSO framework stipulates Internal Environment and Objective Setting as the two components which start off the process of risk management. This stage of the ERM process is geared towards identifying the strategic objectives, making sure that all participants know and understand the objectives and is an ideal opportunity to evaluate the continued relevance of the objectives. However, the ISO Standard indicates that in Establishing the Context, the “objectives, strategies, scope and parameters of the activities of the organisation.....*should*

⁷⁶ In our discussions, we will refer more to the ISO standard, since it is the most recent and was developed out of the older, more established standards.

⁷⁷ Standard ISO 31000 First Ed Risk Management – Principles and Guidelines Pg 15

⁷⁸ Institute of Risk Management, A Risk Management Standard pg 2

*be established*⁷⁹ (my emphasis). The word “established” seems to suggest that the aim is merely document, rather than to investigate its ongoing relevance.

All the standards recommend that, during this part of the ERM process, as much consultation and discussion occurs, as the embedding of a common risk culture is one of the most important aspects or conditions which will facilitate risk management from an enterprise perspective. The development of a learning culture is also regarded as an important component of organisational learning, and a significant barrier preventing learning. We aim to delve deeper into this aspect, in order to determine whether the organisational context and objective setting phase can play a role in developing a culture of learning. Having diverse subcultures especially at different hierarchical levels can significantly reduce organisational integration and learning⁸⁰.

There are divergent views regarding the usefulness of uniformity in respect of culture because it acts as a premise control and affects how and what we perceive as risks⁸¹. That is, in group situations, the view of the expert or one with more relevant experience ought to have a better risk perspective on a particular type of risk. However, due to dynamics of the group, that person’s risk perception may change as a result of interaction with the group. Notwithstanding, the benefits for integration and coordination of risk management across the enterprise or organisation can benefit greatly from have a shared perspective of risk and risk issues. Getting the context right is crucial as the identification of risk and the assessment of it will depend on an intimate knowledge of the organisation, and indeed, the entire risk management process occurs, and its effectiveness is dependent on the context of the organisation⁸².

2.6.2.2 Risk Assessment

The Risk Assessment process includes identifying the risks facing the organisation, describing them methodically and evaluating the possible impact on the organisation. This is the component where the organisation identifies all the risks which could affect the

⁷⁹ ISO 31000 First Ed Risk Management – Principles and Guidelines Pg 16

⁸⁰ Schein E, On Dialogue, Culture and Organisational Learning Pg 36

⁸¹ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks Pg40; Weick K, (2006) Sensemaking in Organisations, Pg 113 ,

⁸² The Association of Insurance and Risk Managers (AIRMIC), The Public Risk Managers Association (ALARM) and The Institute of Risk Management (IRM), UK, (2010) A Structured Approach to Enterprise Risk Management (ERM) and the requirements of ISO 31000, , pg 7

objectives. Enterprise Risk Management requires consideration of all risks facing the entity and should accordingly cover all the business activities, decisions and processes. Risk Assessment is generally made up of the three activities of identifying the risks, analysing the risks and evaluating the risks⁸³.

A generally accepted approach to assessing risks includes assessing the probability of its occurring and the impact it would have on the organisation or the objective in question⁸⁴. Estimates of risk likelihood and impact often are determined using data from past events, which may provide a more objective basis than entirely subjective estimates. The risk assessment methodology can include both qualitative and quantitative techniques, and the outcomes can easily be depicted as a matrix of probability and impact. The risks are then ranked on this basis for easy reference and consideration by the organisation. The more complex the risk management processes of the organisation, the more complex the assessment techniques could be⁸⁵.

Risk assessment methods and techniques differ across industries and companies. Risk assessment methods have long been employed in medical and industrial safety and engineering environments. Emphasis in these areas have been on scientific methodologies and proof regarding risk and its consequences. Furthermore there has also been criticism of the lack of agreed terminology amongst practitioners and standard setting bodies. This has generated some confusion and reduced the efficacy of the risk management practice⁸⁶. Disagreement exists on issues such as definition of the risk concept, and how to represent true uncertainty⁸⁷. These included dealing with incomplete knowledge (uncertainty related to ignorance, ambiguity where no prior knowledge exists). In some environments and industries, such as the engineering and medical environments there is a high reliance on scientific findings in relation to consequences and impact of risk when they occur. This may be because these are well documented, and well understood, but in other instances, such as in business organisations there are cultural aspects which cannot be predicted easily and which may not lend itself to scientific methods.

⁸³ ISO 31000 First Ed Risk Management – Principles and Guidelines Pg 14,

⁸⁴ Walker P, Shenkir W, Barton T (2002) Enterprise Risk Management: Pulling it All Together Pg 21

⁸⁵ Walker P, Shenkir W, Barton T (2002) Enterprise Risk Management: Pulling it All Together Pg 21. Certain organisations also rate the internal controls by which the risks are managed. This allows for the organisation to assess the effectiveness of the mechanisms implemented to manage the risks.

⁸⁶ Aven T (2012) Foundational Issues in Risk Assessment and Risk Management Pg 1647

⁸⁷ Aven T (2012) Foundational Issues in Risk Assessment and Risk Management pg 1649

The assessments are usually conducted through risk workshops with relevant staff members. There are general standards for conducting workshops which can include the type of preparation, duration and so forth. In general, the workshops seek to stimulate discussion and ultimately to derive consensus on the risks identified, how they should be rated and the potential controls to be implemented. Risk assessment can create an understanding of the risks facing the organisation, how they will potentially will arise, how they should be managed. It encapsulates the mental model of the organisation, and almost builds a scenario for the participants who, as the scenario develops into reality will be more prepared to identify the potential event before it matures, and be more prepared in terms of the potential actions to prevent the event and the negative impacts thereof.

2.6.2.2.1 Risk Identification

During the risk identification process, the organisation evaluates past and present factors, whether external and internal, financial or non financial to identify risks to the objectives of the organisation. These could include political, economic, technological, processes and procedures, internal and external governance frameworks.

Different techniques are available for the identification of risk. For example, cash flow risks could be identified through a study of the historical trends relating to bad debts, and payment default historical etc. Other techniques may look to the future trends, such as population growth and death rates, etc. Most risk management methodologies recommend an inclusive process in the identification of risks, as no one person has the requisite knowledge of the internal and external environment to identify all the risks. There are a variety of mechanisms to identify risks which includes workshops and interviews, brainstorming and scenario analysis, self analysis, SWOT analysis, business process analysis, systems engineering process mapping⁸⁸.

The standard⁸⁹ recognise that business activities and decisions may be classified in different ways and accordingly provides examples, such as “strategic”, “operational”, “financial”, “knowledge management”. They also recommend that the risk identification process be an internally driven, well communicated and co-ordinated process would be more effective⁹⁰. Most likely, this is due to the fact that the risk identification process seeks to identify what

⁸⁸ Institute of Management Accountants 2006 Enterprise Risk Management: Frameworks, Elements and Integration Pg

⁸⁹ Institute of Risk Management (2002) A Risk Management Standard, pg 5, ISO 31000 First Ed Risk Management – Principles and Guidelines Pg 17

⁹⁰ Institute of Risk Management (2002)“A Risk Management Standard”, pg 5

risks and opportunities are currently facing the organisation, and this requires an intimate knowledge of the organisation, its processes and its operating environment. Employees and in-house management have the best view of the internal and external environment of the business, and furthermore management would be obliged to take accountability of the risk management processes and the outcomes, in the absence of outside consultants.

The COSO framework names this component *Event Identification*, where the internal and external events which may impact on whether the relevant objectives will be met are identified. The COSO framework uses the word “identified⁹¹”, and again, this seems as if the aim is to document the objectives without delving further into the relevance of the objectives or the other factors. The ISO standard is similar but also shows a keen appreciation for positive impacts on objectives, such as opportunities to enhance, and accelerate the meeting of objectives⁹². The emphasis on comprehensiveness includes even identifying risks the causes of which are not yet evident.

Risk identification is an important learning activity because it scans and focuses attention on the internal and external environment, and particularly raises attention to the aspects which can impact on objectives. For example, process risks show up discontinuities between objectives and the processes designed to achieve them, and can lead to incremental changes (convergence) in the way the organisation conducts its business. These risks thus bring about the changes out of which organisations emerge⁹³. Other risks may result in paradigmatic shift, where the organisation takes on a different direction or objective completely, which change is regarded as upheaval⁹⁴.

In practice it is doubtful whether this type of scanning and identifying of risk is conducted other than as a tick-box approach to complying with the standards, policy and legislation. A survey conducted by the Economist found, inter alia that compliance, controls and monitoring are receiving too much of managers’ attention which is disproportionate, bearing in mind the mechanical nature of the tasks and there is limited time and resources to focus on identifying new risks or to investigate and analyse them properly. There is also perceived to be an

⁹¹ Committee of Sponsoring Organisations of the Treadway Commission, September 2004 *Enterprise Risk Management – Integrated Framework*, , pg 4

⁹² ISO 31000 First Ed Risk Management – Principles and Guidelines Pg 17

⁹³ Tsoukas H & Chia R, (2002) On Organisational Becoming: Rethinking Organisational Change in *Organisation Science*” Pg 569

⁹⁴ Tushman, ML, et al,(1986) Convergence and Upheaval: Managing the Unsteady Pace of Organisational Evolution, in *Managing Strategic Innovation and Change A Collection of Readings*, Pg 534

increase in the compliance burden which will increase the problem⁹⁵. This undermines the ability of risk management to play a more strategic role in improving the way the business works and performs and in identifying opportunities for innovation in maintaining and improving stakeholder value. This will impact on learning by the organisation in the long run.

2.6.2.3 Risk Analysis

The IRM standard also requires the rating of the risk in terms of its probability of occurrence, and the likely impact thereof should it occur. These aspects can be qualitative, quantitative or semi-quantitative and is generally measured in categories of high, medium or low⁹⁶. Both factors (Impact and probability of occurrence) can then be plotted in a risk matrix to give an indication of the risk rating, which will allow the organisation to develop a profile of their risks and opportunities, to document which business areas are impacted by them, and what controls may be implemented and so forth⁹⁷. The COSO framework also uses the impact and likelihood of occurrence to determine how to manage the risks⁹⁸.

The use of the probability approach, although widespread, is not without its criticism. It has been criticised in that the probability approach is too narrow and can be misleading in the case of true uncertainty (that is where ignorance is involved or where risks are incalculable) and where human factors are involved. In the project management environment too, probability theory was considered to be deficient in explaining aspects observed in the environment⁹⁹.

Risk evaluation is essentially the process of evaluating each risk in relation to predetermined attitudes or tolerances of the organisation to specific risks. Key drivers of these tolerances are the perceptions relating to socio-economic factors, legal/compliance requirements, and cost of mitigation or avoidance measures etc¹⁰⁰. The ISO 31000:2009 Standard provides that the risk analysis component provides input into decision making and into the risk evaluation phase¹⁰¹ and the analysis is done on the basis of the likelihood and impact/consequence of the risk. It also suggests that analysis includes considering the causes, sources, consequences, and

⁹⁵ Davis, P 2009 Beyond Box Ticking The Economist Intelligence Unit Pg 18.

⁹⁶ Institute of Risk Management (2002) A Risk Management Standard, pg 6

⁹⁷ Institute of Risk Management (2002) A Risk Management Standard , Pg8

⁹⁸ Committee of Sponsoring Organisations of the Treadway Commission, September 2004 *Enterprise Risk Management – Integrated Framework*, pg 4

⁹⁹ Pender S (2001) Managing Incomplete Knowledge: Why Risk Management is not sufficient, Pg 87

¹⁰⁰ Institute of Risk Management (2002) A Risk Management Standard, pg 8

¹⁰¹ ISO 31000 First Ed Risk Management – Principles and Guidelines Pg 18

the likelihood of the consequences occurring. This component can be qualitative or quantitative, or a combination. In reporting on this aspect, the standard suggests that the confidence with which the analysis is invested ought to be made available to decision-makers. Accordingly, agreement or disagreement by experts, personnel on the analysis, or on the information quality or limitations to the models developed etc must be made known to decision-makers¹⁰².

2.6.3 Risk Response Determination

Risk Treatment is the process of identifying actions and mechanisms by which the risks and opportunities can be treated and dealt with appropriately. Accordingly, treatments can include actions to minimise or avoid threats, or to enhance and promote opportunities, should they arise. Treatment includes actions which can mitigate, avoid, transfer, or finance risk¹⁰³.

The IRM standard refers to risk treatment as a process to “modify the risk¹⁰⁴”. In our view, the word modify appears relevant in referring to the threat component of risk, as it tries to alter, moderate or change the threat and reduce its impact. This definition does not appear to do justice to risk as an opportunity to the organisation. In this case we should seek to enhance, or exacerbate the impact of this positive aspect. Although the risk management standards, frameworks and writers emphasize the dual aspect of risk, the writings, standards and policies seem to always fall into the trend of referring to the threat aspect, possibly due to the historical development of risk management. This will continue the perception of risk as a threat, rather than as having a dual threat/opportunity aspect

The COSO framework uses the term “*Risk Response*”, as a set of actions to bring the risk into alignment with the appetite and tolerance for risk¹⁰⁵. The ISO 31000:2009 Standard also refers to this aspect as “Risk Treatment”¹⁰⁶. However, the ISO standard goes into greater detail, providing guidance on treatment options, on selecting treatment options and implementing risk treatment plans. ISO 31000 also suggests that, when selecting a risk treatment, organisations should consider the perceptions and views of stakeholders, as well as the risks and secondary risks associated with the treatment options chosen. Insofar as the implementation of risk treatment plans, the standard suggests that the organisation documents

¹⁰² ISO 31000 First Ed Risk Management – Principles and Guidelines Pg 18

¹⁰³ Institute of Risk Management (2002), A Risk Management Standard, pg 10.

¹⁰⁴ Institute of Risk Management (2002) A Risk Management Standard, pg 10

¹⁰⁵ Committee of Sponsoring Organisations of the Treadway Commission, September 2004 *Enterprise Risk Management – Integrated Framework*, Pg 4

¹⁰⁶ ISO 31000 First Ed Risk Management – Principles and Guidelines Pg 18

in detail the reasons for adoption of the respective treatment options, identifying the accountable personnel, identifying the actions, resource requirements, performance measures and constraints, timing and reporting requirements¹⁰⁷.

By determining and documenting the risks, the causes, potential secondary risk, the consequences and the organisations response, the people involved in risk management are preparing themselves and the organisation. Thus if the risk becomes a reality, individuals will recognise the events when they see them unfolding as predicted, and this preparation will potentially reduce the time of confusion and allow immediate action.

2.6.4 Risk Communications and Reporting

The risk communication and reporting takes into account that different business components or units require different types of information, depending on how they will use the information. The Executive (Board Of Directors) will need to know what the significant risks are, how they will impact on stakeholders and stakeholder values, how to communicate with stakeholders in the event of the risks becoming realities, and so on. Accordingly, the executive must ensure that there is sufficient awareness in the organisation about the risks, and how to deal with them should they arise, and that this awareness is embedded in the culture of the organisation.¹⁰⁸ In essence they need information relating to strategic aspects of the organisations activities. However, Gartner's survey of 171 firms show that only 43% of boards are influenced in their decision making by risk management information¹⁰⁹.

Business units need information and reports which inform them of the risks which they should be managing or risks from other areas which impact on their business areas¹¹⁰. Accordingly their performance objectives in term of risk management should be directed to monitoring the key activities which are impacted by risk, such as revenue and expenditure, input and outputs etc, and their reporting requirements should also be designed to bring forth the variances and consequences on the business.

Individual members of the organisation also have a role to play in the risk management process. They are essentially the eyes and ears of the organisation and take action on its behalf. They accordingly must be aware of what risks and risk management activities they are accountable for, how their actions can impact on risk and opportunity management, and how

¹⁰⁷ ISO 31000 First Ed Risk Management – Principles and Guidelines Pg 20

¹⁰⁸ Institute of Risk Management (2002) A Risk Management Standard, pg 9.

¹⁰⁹ Proctor PE (2012) Survey Analysis: Risk Management 2012, Gartner, Pg 6

¹¹⁰ Institute of Risk Management (2002) A Risk Management Standard, pg 9

responsiveness to stimuli can be effected through their involvement in the process¹¹¹. Other stakeholders such as shareholders, owners etc also need information regarding risks and opportunities, and these are generally enshrined in governance protocols such as the King III Report and other specific policies and laws relating to specific industries.

Communication is a two way street. In this respect it is unlike simply providing information to stakeholders or employees. Information with regard to risk should understand and speak to the interest of the stakeholder and it is crucial that risk communication is merged seamlessly with risk management processes. This allows for a common terminology to develop and for a common understanding of the risks themselves and their impact, thus creating a common risk culture. It also encourages an inclusive ethos, and brings all relevant people into the risk management process. Honest and open discussion on risk is generally recommended as it solicits input and engenders confidence among participants. It also encourages them to question assumptions/biases, allowing learning to take place. Developing procedures for communications go a long way to ensuring communication is effective, particularly goals, responsibilities, planning, implementation, monitoring and evaluation¹¹².

Monitoring and review, like reporting also runs across all risk management processes. The ISO 31000:2009 Standard suggests that monitoring and review processes should cover all aspects of the risk management activity to ensure that¹¹³:

- controls have both design and operational effectiveness and efficiency,
- additional information is obtained which could benefit the improvement of the risk assessment;
- analysis can be done and lessons can be learnt from the trends, changes, success, failures;
- emerging risks can be identified,
- Keeping a lookout for any changes in the external and internal context, risk criteria and other aspects which may suggest that the risk treatment is or is becoming ineffective.

However, often the organisational dynamics overcome the intention to allow for open discourse and risk communications and other risk processes fall into the trap of maintaining the status quo rather than questioning it. A failure to communicate the proper risk messages

¹¹¹Institute of Risk Management (2002) A Risk Management Standard, pg 9

¹¹²Clery S and Malleret T (2006) Resilience to Risk” Page 133.

¹¹³ ISO 31000 First Ed Risk Management – Principles and Guidelines Pg 20

to stakeholders may mean that certain risks are not understood, or the risk appetite is not appreciated and this can have significant impact on how risks and events are identified. Communication of risk information is considered to be a key weakness in many organisations¹¹⁴. Risk awareness in many organisations has been found to be low, and in many instances managers feel threatened about open discussion on some risks. While this is the case, risk management will fail to influence business decision making and the reports will simply continue to be paper compliance to a non responsive audience¹¹⁵.

Reporting must also be maintained on the progress in implementing the risk treatment plans, as these can be performance criteria for relevant personnel. The COSO framework also identifies Information and Communication as an important component, as well as monitoring in line with the other standards.

2.7 Conclusion

In conclusion, the history of risk management may well be the history of modern human endeavour. While we had thought that with increased knowledge and information processing capability we would be able to better understand the world, and would be better able to control, we keep being surprised by events and circumstances which could have been prevented had we only seen the signs. It is now generally accepted that risk is part of human endeavour and while we may hope to understand it and better manage our organisations in relation to it, we will never eradicate it or totally know it.

The discussion on risk and its relevance to society is a much bigger discussion as Beck et al have pointed out. Our society and way of life is characterised by pervasive risk, and we are accordingly more aware of risk and how it affects us. This, and particularly in the case of incalculable risk where financial services firms, governments and others have passed this on to the individual, has resulted in increasing alienation, dehumanisation and isolation of that individual¹¹⁶. This represents the end of days for modernity, and signals a change of era. Similarly risks represent fault lines in the organisational reality (whether process, strategy or financial in nature), and if used correctly can be the harbingers of change. These changes can be convergent, as in the case of incremental changes in relation to operational risks, or discontinuous changes reflected in paradigmatic shifts in strategy. There are those who posit

¹¹⁴Davis, P 2009 Beyond Box Ticking Pg 13.

¹¹⁵ Proctor PE (2012) Survey Analysis: Risk Management 2012, Gartner, Pg 12

¹¹⁶Van Loon J, (2004) Risk and Knowledge, Pg 61

that upheaval can be structured in order to generate a lasting change¹¹⁷. But there are significant questions which need to be asked here, such as when should upheaval be sought by an organisation? Can risk management play a role here? From the perspective of business and investment, the decision may well rest on the nature of the financial and economic return, but from the wider social perspective? How will these mechanisms affect workers, families unions, and other indirectly related stakeholders? It is beyond the scope of this paper to investigate this, but perhaps this is where Van Loon, Beck, Giddens and Lash are looking to see risk society be more humane and looking to see more regulatory oversight over risk driven solutions¹¹⁸.

Risk management has gone through its own transition, having been practiced in a fragmented way. Greater regulation and governance requirements and a shift in perspective in which intangible assets have increased in value, such as knowledge assets, has required executive management to play a greater role in overseeing risk management. These frameworks and requirements evidence a movement away from management of risk in silos and in fragmented ways, to using methods which are integrated and inclusive, and which requires all stakeholders and parties to participate in the enterprise risk management processes, in ways reminiscent of Beck's suggestion of risk pervasiveness and that everyone is an actor on the risk management stage¹¹⁹.

There is recognition that risk management is responsive to change in the organisation, that it facilitates decision making and continual improvement of the organisation¹²⁰ and that it will improve organisational learning and organisational resilience¹²¹. While these are acknowledged in the literature on risk management, there does not appear to be sufficient information to describe how risk management does this and indeed in what way risk management can facilitate such improvement. The learning approach to risk management is applied in medical and clinical governance environments, where the focus is on generating

¹¹⁷Tushman, ML, et al,(1986) Convergence and Upheaval: Managing the Unsteady Pace of Organisational Evolution Pg 534

¹¹⁸ Beck U, Giddens A, Lash S (1994) Reflexive Modernisation: Politics, Tradition and Aesthetics in the Modern Social Order Pg 7, 10. Also Van Loon J, (2004) Risk and Knowledge, Pg 60

¹¹⁹ Beck U, Giddens A, Lash S, (1994) Reflexive Modernisation: Politics, Tradition and Aesthetics in the Modern Social Order Pg 11

¹²⁰ISO 31000 First Ed Risk Management – Principles and Guidelines Pg 7-8

¹²¹ ISO 31000 First Ed Risk Management – Principles and Guidelines Pg vi

improvements in clinical environments¹²². However, the majority of the learnings are generated less from risk but from incidents and issues observed. Thus the learning is derived from actual events rather than from potential future events.

In order to effectively implement ERM in organisations, certain conditions need to be created so that ERM can flourish¹²³. These include the following

- identifying and embedding a culture of risk taking and management, establishing the risk appetite and philosophy of the organisation, and by establishing a procedural framework for how it will be managed. It also includes documenting the strategic objectives and other aspects which would serve to establish and evidence the organisations culture. Embedding such a culture would require removing barriers to transparency and sharing with regard to risk and to errors made in the organisation, and the establishment of incentives and rewards for risk and error identification and so forth. However, in its implementation there is still much to do in terms of increasing risk awareness, transparency, and generating the kind of focus on risk to improve decision making in favour of increasing shareholder value¹²⁴. This includes increasing board participation, improving information flows and attitudes to ensure line of sight from top to bottom. But often these requirements are complied with in letter but the substance is lost because they are ineffective. For example, while many risk committees have been established in compliance with the legislation and codes, many of them are staffed by inexperienced and unqualified persons, reducing its effectiveness.
- Once it is known what the appetite for risk is and how risk ought to be managed, the organisation must identify and analyse the risks it faces, and assess these risks on the basis of the probability and impact. This process involves a scanning of the internal and external environment in order to determine the nature of the risk and sufficient information to regarding risk mitigation actions, accountability and other relevant issues. During this process many issues which affect risk, such as the differing risk perceptions and issues of interpretation surface, as they do in issues relating to

¹²² Hart E, Huddleston, A, Smith J (2006) Clinical Governance in Action: Learning from Experience: A Case Study of Clinical Governance in Action Pg 30

¹²³ Institute of Management Accountants (2006) Enterprise Risk Management: Frameworks, Elements and Integration Pg 14

¹²⁴ Davis, P 2009 Beyond Box Ticking Pg 6

learning. The strength of the cultural embedment will show in this respect as well as the extent to which participants feel allowed to be open about risk.

- Once the risks are identified, the measures to manage the risks need to be agreed upon and implemented. This is the business of risk management. The mechanisms can include insuring against the occurrence of the risk, or through contracts, or by avoiding the risk by not taking up a project, or by sharing the risk with a partner where the risk level is beyond the companies risk threshold. Action may not be immediately required, but the identification of the risk and its sharing with others will generate a focus on it, and on its impact, even amongst those who previously were ignorant of the risk or its effects, which then can become the cues which are recognised during scanning. Again, as has been mentioned, the scanning and analysis processes are undermined due to the burden of compliance, and thus the opportunity for scanning and interpretation is lost, both of which are crucial for learning
- A crucial component of the risk management process is the continuous monitoring of the environment, so that the organisation's decision makers can receive warning signals relating to the identified risks and/or opportunities. Without an effective method of monitoring and communication, the risk management process will fail to fulfil its objective, which is to improve the resilience and responsiveness of the organisation.

This description must be the result of an inclusive process, including consultation and discussion. Equally, identification of risk, as well as evaluation of risk must be inclusive processes, with a comprehensive documenting of risks. Furthermore, the techniques used must encourage openness and trust by participants. Evaluating the risks can result in disagreement and the ensuing discussions can be valuable from the perspective of identifying new risks, reframing risk perceptions towards a common one, and identifying opportunities. Communication, reporting and monitoring must cover the entire spectrum of the organisation. However, in practice most organisations implementing enterprise risk management fall short, which represents a lost opportunity for organisational learning, and for using it to maintain and improve efficiency and stakeholder value. In this chapter we outlined the principles of risk management and how enterprise risk management can go beyond the traditional approach. In the next chapter we will try to explore the concept of learning, and organisational learning.

Chapter 3

Organisational Learning

3.1 Organisational Learning – A Brief Overview

In and during the 1980's and 1990's, various authors developed ideas around the ability of organisational to learn, how such learning takes place and the benefits to be derived from it. Some of these aspects are outlined below. Since then there have been numerous studies on the subject, both regarding the concepts of learning organisations and organisational learning. Organisational learning, on the other hand may be described as depicting the process by which organisations can learn. This contrasts to learning organisations which may be descriptive of the structure which would facilitate learning¹²⁵. Both of these are fundamental to deliver knowledge creation and innovation by organisations in the knowledge economy.

Organisational learning has received a lot of attention from academics and writers in management sciences, as well as managers and practitioners in organisations, as they seek to improve organisational resilience in the face of increasing environmental turbulence and change. While there has been significant discourse on this topic, implementation is not uniform, nor is there wholesale agreement on many issues relating to learning. There is also no accepted governing or prescriptive requirement or framework for organisational learning practices to be implemented in organisations, such as is found in other management areas, such as risk and financial management, although it has become a significant part of the management focus and is seen as an important component of organisational growth. The lack of an approved, prescriptive standard reflects the maybe a need to continue to study and understand the phenomenon, and may in part be an appreciation of the scale of the issues involved in the topic of organisational learning. In the paragraphs below, we will provide a brief overview of some of the topics and issues relevant to organisational learning. Our purpose is not to conduct a detailed and comprehensive study into the topic, but rather to identify, discuss and evaluate certain aspects and components which overlap and resonate

¹²⁵ Serrat, O (2009) “Primer on Organisational Learning”, Pg 1

with enterprise risk management as a management activity, and where enterprise risk management may, perhaps facilitate the implementation of organisational learning.

The concept of organisational learning has also been tied to the concepts of single and double loop learning which we will also discuss further herein. The concept of single loop learning, as opposed to double loop learning, is the type of learning which occurs in most organisations, whereby the learning is directed to overcome errors and challenges in the environment so as to maintain the agreed outputs and policy guidelines of the organisation. Double loop learning on the other hand deals with the type of learning whereby the strategies and policy guidelines themselves are critically evaluated¹²⁶ and changed.

In this chapter, we will look at organisational learning, what it is, how learning happens and discuss some components of learning, and organisational learning. We will, inter alia, consider aspects such as organisational memory and its effect on learning. We also consider organisational culture, change and the effects of aspects such as uncertainty and ambiguity on learning. While this may not be an exhaustive exposition on the topic, at the end of this chapter we hope to make the connection between these components of organisational learning and aspects of enterprise risk management in order to show more than a passing resemblance between these two increasingly important management activities.

3.1.1 Organisational learning and learning organisations

An organisation may be described as a group of individuals who pursue a common objective. Alternatively they could be regarded as networks of relationships between people, objectives and resources. There are different definitions of organisations, by various authors, which reflect the different perspectives on organisations. In search of a sense-making perspective of organisations, Weick utilises the conceptual framework of W. R. Scott in identifying 3 types of definitions for organisations, namely as a rational system, as an organism and as an open ended system¹²⁷. These organisational types, identified by Scott are characterised in relation to the type/extent of relationships or couplings between the component parts of the organisation, and can range from those couplings which are more controlled, closed systems to those which are more open and loosely structured. The distinction has relevance from a learning or sensemaking perspective since the loosely coupled, open ended organisation will receive more information or stimulus from the environment and accordingly must be geared

¹²⁶ Hovland I, (2003) Knowledge Management and Organisational Learning: An International Development Perspective, pg 17

¹²⁷ Weick, KE. (1995). Sensemaking in Organizations Pg 70

to deal with it and to make sense or learn from it. Are these types of organisations the learning organisations? There has been some confusion around the concepts of learning organisations and organisational learning and whether they can be used interchangeably.

Definitions of learning organisations are varied. It includes seeing the learning organisation as an attitude or a state of being, rather than a product; an organisation that ensures the learning of its members which continuously transforms the entire organisation and the environment in which it operates¹²⁸. Garvin calls our attention to the following definition of a learning organisation¹²⁹:

“A learning organization is an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behaviour to reflect new knowledge and insights”

This definition reflects that learning can only occur if there are fresh ideas which the organisation can act upon, but further that learning will not occur unless they are acted upon in such a way, that the organisation itself changes the way it behaves or is configured. He goes further to suggest that this is a stringent test which will see organisations such as universities and organisations of learning failing in that, although they generate numerous new ideas, they generally fail to act or apply these in their organisational behaviour¹³⁰.

While most scholars agree that organisational learning is a process which requires knowledge creation and can lead to innovation in performance, there appears to be some disagreement on other issues, such as whether behavioural changes or modifications must take place¹³¹.

After having reviewed the literature on the concept of organisational learning, Wang and Ahmed¹³² identified various criticisms of the prevailing definitions of the concept which includes that:

- the definitions were too broad and appeared to be a synonym for all organisational change and that there was little agreement on key concepts and definitions
- Different definitions of the concept were conceptually similar;

¹²⁸ Wang CL and Ahmed PK, (2003) Organisational Learning: A Critical Review, pg 12

¹²⁹ Garvin D, (1998) Building a Learning Organisation, pg 51

¹³⁰ Garvin D, (1998) Building a Learning Organisation pg 51

¹³¹ Garvin D (1998) Building a Learning Organisation pg 51

¹³² Wang CL and Ahmed PK, (2003) Organisational Learning: A Critical Review, pg 9

- Concepts over relied on concepts such as systems thinking and continuous improvement, which were regarded as traditional approaches to management, and which were considered to have limitations in the current market place.

There has also been a distinction made between the traditional perspective on organisational learning and a social perspective on the subject of learning¹³³, which may also have been responsible for the blurring of the distinctions between the concepts of organisational learning and learning organisations. Ortenblad, in his search for the distinctions between the 2 concepts, found that the literature distinguished them on a variety of bases. One of these distinctions refers to organisational learning as a process or type of activity to be found in organisations, while the learning organisation is an organisation itself¹³⁴.

A second distinction deals with the prescriptive or descriptive nature of two concepts¹³⁵. The concept of learning is considered to be a natural consequence of existence, something that happens naturally, both for individuals as well as for organisations, and as such organisational learning is a natural consequence of existence. However, whether the learning experience is used for the organisations purpose is another matter altogether. The learning organisation, on the other hand is not a natural consequence of existence, but requires additional effort and impetus to come into existence. It appears that the learning organisation relies on the learning which occurs naturally, but goes further in fostering or does more with regard to managing it. Referring to the work of Tsang, Ortenblad highlights this distinction and Tsang's view that the learning organisation is prescriptive and an ideal model¹³⁶. However, while a learning organisation is an ideal to aspire to, it is not a necessity. Learning on the other hand is natural and a necessity for continued existence, and is considered to be a prerequisite to the survival of the individual and of the organisation. Another distinction between the two reflects that organisational learning attracts the attention of more academics, whilst learning organisations attract the attention of more practitioners and consultants. Referring to Easterby-Smith and Araújo, this seems to bear out their perspective that writers on the learning organisation seem to focus on normative models for improving processes of learning in organisations, while authors on organisational learning focus on what appears to be a more academic pursuit of the nature and process of how learning happens in

¹³³ Ortenblad, A (2001) On Differences between Organisational Learning and Learning Organisation Pg 125

¹³⁴ Ortenblad, A (2001) On Differences between Organisational Learning and Learning Organisation Pg 126

¹³⁵ Ortenblad, A (2001) On Differences between Organisational Learning and Learning Organisation Pg 127

¹³⁶ Ortenblad, A (2001) On Differences between Organisational Learning and Learning Organisation Pg 127

organisations¹³⁷. Presumably, the former being the more practical pursuit, will be of relevance to companies and firms who would be prepared to pay consultants handsomely to improve the learning processes in their organisations.

What then, is organisational learning, and how does it occur? For our purposes, we know that organisational learning is aimed at creating resilience through being able to learn from environmental events or changes and to be able to adapt accordingly. This resonates with the concept of risk and opportunity in that it deals with how organisations deal with uncertainty and changing environmental impacts. In looking for the concept of organisational learning, we take a closer look at learning, both from the perspective of the individual and of the organisation, as well as the link between individual and organisational learning.

3.1.2 Individual learning

The concept of learning has long been studied from the perspective of the individual, and largely in the field of psychology¹³⁸. From the perspective of the organisation, the studies have been much more recent, but the role of individuals and learning of individuals in relation to organisation learning is an important one. Individual learning is regarded as a *sine qua non*, without which there can be no organisational learning¹³⁹. Learning is a natural event that happens all the time, and individuals learn constantly, but this learning is not always reflected in the changing of behaviours in the organisation, nor is all that they learn useful to the organisation. Consequently, individual learning, while a necessary input for organisational learning, does not automatically result in organisational learning.

For learning to occur, the individual must modify his behaviour as a result of the learning¹⁴⁰. A definition of learning by Stephen Robbins defines learning as “*any relatively permanent change in behaviour that occurs as a result of experience*”¹⁴¹. Accordingly, learning involves individual change, and the change must have some permanency. The change is reflected in how the individual acts and performs his/her work. If the learning is not reflected in different

¹³⁷ Ortenblad, A (2001) On Differences between Organisational Learning and Learning Organisation Pg 127

¹³⁸ Wang, CL and Ahmed PK, (2003) Organisational Learning: A Critical Review, pg 9

¹³⁹ Ortenblad, A (2001) On Differences between Organisational Learning and Learning Organisation Pg 127

¹⁴⁰ Garvin D, (1998) Building a Learning Organisation pg 51; also see Robbins, SP (1989) Organisational Behaviour Pg 68

¹⁴¹ Gibson et al, (2003) Organisations Behaviour Structure Processes pg 154; Robbins, SP (1989) Organisational Behaviour Pg 68

actions no valid learning would have taken place¹⁴². Robbins discusses three theories of how people learn namely Classical Conditioning, Operant Conditioning and Social Learning. Classical conditioning results in reflexive or reactive behaviours, not voluntary behaviours. An outside stimulus causes the reflex response, whereas in complex organisations the response is chosen by the individual¹⁴³.

Operant Conditioning is premised on the principle that the individual will modify his/her behaviour due to an incentive to gain or avoid some consequence, and that the behaviour is learned. Social learning theory is an extension of Operant Conditioning in that the individual will modify behaviour relative to consequences which are likely to follow, but it goes further to suggest that the learning occurs in a social context and takes place through observing others, and that the behaviour is relative to a subjective perception of the consequences which are considered likely to follow¹⁴⁴. In other words, the subsequent behaviour will be modelled by what she believes will be the outcome or consequences, based on what she has experienced before. Social learning theory suggests that the individual is likely to be affected by people and his perceptions of how others consider or perceive him¹⁴⁵. For example, people tend to avoid situations where they are likely to feel less confident or are likely to fail. Thus learning is dependent on and tied to the subjective experiences and perceptions of the individual¹⁴⁶.

Learning is seen as a process involving the past experience, observations and reflection, conceptualisation and experimentation of the individual¹⁴⁷. The organisation however, does not have access to these experiences/observations and cannot rely on having access to them since the individual may decide not to surrender his/her insights or intuition to the organisation. The individual's may choose not to do so because he does not identify with the organisation and is not committed to it¹⁴⁸. Factors which have a bearing on how strongly the individual relates to the organisation, also impacts on learning and performance. These

¹⁴² Robbins, SP (1989) Organisational Behaviour Pg 68

¹⁴³ Robbins, SP (1989) Organisational Behaviour Pg 70; Also see Gibson et al, (2003) Organisations Behaviour Structure Processes pg 156

¹⁴⁴ Robbins, SP (1989) Organisational Behaviour Pg 71

¹⁴⁵ Gibson et al, (2003) Organisations Behaviour Structure Processes pg 155

¹⁴⁶ Kim, D (1993) The Link between Individual and Organisational Learning, Pg 2; See also Van Winkelen C & McKenzie J (2007) Integrating Individual and Organisational Learning Initiatives Pg 528

¹⁴⁷ West P Learning In Organisations: Theory and Practice in Organisational Learning in the Automotive Sector, Pg 53

¹⁴⁸ West P Learning In Organisations: Theory and Practice in Organisational Learning in the Automotive Sector, pg 48

factors can include the nature and culture of the organisation, the competence and management style of managers, and the maturity of the individual¹⁴⁹. Since learning is dependent on past experiences it is also dependent on memory, which from a learning perspective goes beyond the technological concept of storage, but includes the mental models and frameworks which affect what the individual sees, perceives and does, and provides context to the learning experience and how the individual sees the world¹⁵⁰. We will deal with the concept of memory and mental models in more detail later on.

Learning has also been described as sensemaking. From this perspective, learning is about the individual rendering the environment to a more acceptable representation, and acceptability is determined by the meaning the individual places upon the things and events which occur around him¹⁵¹. The concept of sensemaking refers to, inter alia to the interpretative process by which individuals can understand their environment and the events pertaining to that environment. Sensemaking includes the sub processes that the individual goes through to perceive stimuli from the environment, to ascribe meaning to the information being received, and to act in accordance with the meaning ascribed¹⁵².

Thus the individual is a crucial element in the scheme of things, and the recognition of this will undoubtedly impact on the relationship between the employee and the employer, and the existing power and political forces at play there. However, while organisational learning occurs through the individual and the way the individual learns, it does not necessarily mean that organisational learning is an accumulation of the learning of individuals¹⁵³. The learning of individuals, although similar in most respects is more complex in organisational contexts because of aspects such as performance management and reward systems which significantly complicate matters¹⁵⁴. Learning by individuals does not necessarily reflect in organisational learning.

In conclusion, the essence of a learning organisation is that it is an ideal to which organisations must aspire. Learning and knowledge creation is now commonly regarded as a

¹⁴⁹ West P Learning In Organisations: Theory and Practice in Organisational Learning in the Automotive Sector, pg 56

¹⁵⁰ Kim, D (1993) The Link between Individual and Organisational Learning, Pg 4

¹⁵¹ Weick, KE. (1995) Sensemaking in Organizations Pg 14

¹⁵² Weick, KE. (1995) Sensemaking in Organizations Pg 5

¹⁵³ O'Keefe, T (2002), Organisational Learning: A New Perspective Pg 131. Also see Kim, D (1993) The Link between Individual and Organisational Learning, Pg 6

¹⁵⁴ Kim, D (1993) The Link between Individual and Organisational Learning Pg 1

source of competitive advantage which companies will be able to convert into tangible products or services. But can organisations themselves learn?

3.1.3 Can organisational learn?

As indicated above, organisational learning is critically dependant on individual learning, and this has been the perception since the early research on the topic. However, over the years the emphasis placed on individual learning in the context of organisations, and organisational learning has shifted to reflect an understanding of the concept as a more complex phenomenon.

Since organisations themselves cannot learn, the concept of agency is crucial thus and the alignment of learning of the individuals within the organisation is the essence of organisational learning¹⁵⁵. The individual agents learn, and as their learning gains acceptance, their learning is assimilated into the organisational memory (eg rules and procedures and so forth)¹⁵⁶. Weick in a reference to Chatman et al, and in discussion of sensemaking and its link to the identity of the individual, sees that the behaviour of the individual in an organisation is a more complex phenomenon in that she acts on behalf herself, but also on behalf of the collective if she has come to embody its views and beliefs¹⁵⁷. The complexity is also driven by culture, organisational structure and other aspects which either hamper or improve learning. If individuals are learning agents for the organisations to learn, then the development of the individual should be the primary focus of organisational learning initiatives¹⁵⁸. Organisations should therefore look to developing the individuals in order to increase organisational learning.

Referring to the views of Cook and Yanow, Ortenblad posits another view, namely that of a cultural approach to organisational learning, based on the premise that organisational learning can be seen as learning by a collective, rather than as individuals¹⁵⁹. An interesting aspect raised by the discussion of where learning takes place is whether all or most, or only a few of

¹⁵⁵ West P Learning In Organisations: Theory and Practice in Organisational Learning in the Automotive Sector, Pg 54

¹⁵⁶ Ortenblad, A (2001) On Differences between Organisational Learning and Learning Organisation Pg 130.

¹⁵⁷ Weick, KE. (1995) Sensemaking in Organizations_Pg 23; Also see Choo, CW, (2006) The Knowing Organisation Pg 266

¹⁵⁸ Wang, CL and Ahmed PK, (2003) Organisational Learning: A Critical Review, pg 9

¹⁵⁹ Ortenblad, A (2001) On Differences between Organisational Learning and Learning Organisation , Pg 129

the members of the organisation must learn in order to satisfy the learning requirements¹⁶⁰. Can a component or unit of the organisation, even if that organisation is a bureaucratic one, be a learning organisation? Can for example, a research and development facility in an otherwise bureaucratic structure be seen as a learning organisation? Or indeed, can a risk management network in an organisation be a learning organisation? This seems to be what Schein drives at in his discussion of the different types of culture (and thus organisation) which may exist, including macro cultures (national, ethnic or religious groups), organisational cultures (private, non-profit or government organisations), subcultures (occupational groups within organisations) and micro cultures (small coherent, cross occupational units within organisations)¹⁶¹. We will talk a little bit more on culture later on in this paper.

Organisational learning is, however more complex than the sum of the learning of each individual as learning of the collective occurs in addition to individual learning. Indeed, it can be independent of each individual¹⁶², and thus be a reflection of the learning of only a small component of the individuals in that organisation. However, this does not undermine the importance of the relationship between individual and organisational learning, and while there are differences of opinion about whether organisations themselves can learn, or whether their learning is simply an effective alignment of individuals learning together, the individual is still a crucial component, as without the individual, no learning can occur¹⁶³.

Thus, from the perspective of learning, organisational learning can occur because the individual learns and makes this learning available to the collective. The organisation learns as the mental model of the individual becomes shared and becomes the premise on which the organisation bases its behaviour. But if organisational learning does occur, how does learning happen in organisations?

3.2 How do organisations learn?

As we have seen, organisations learn through the learning of individuals, whose behaviours are amended as a result of changes to their underlying perspectives or norms. These individuals interact and communicate with others, sharing and integrating their perspectives.

¹⁶⁰ Ortenblad, A (2001) On Differences between Organisational Learning and Learning Organisation , Pg 128

¹⁶¹ Schein, E (2010) Organisational Culture and Leadership pg 2

¹⁶² Wang, CL and Ahmed PK, (2003) Organisational Learning: A Critical Review, Pg 9

¹⁶³ See also Kim, D (1993) The Link between Individual and Organisational Learning Pg 9

Organisational learning thus requires the interactions between people. Over the years a number of models and frameworks have been discussed depicting organisational learning.

3.2.1 Cybernetics

A view which is premised on Cybernetics principles contributed to the learning debate, and inter alia identified four learning principles or capabilities which would allow an organisation to regulate itself and respond appropriately to changes in its environment¹⁶⁴. According to Cybernetics, the organisation ought to be able to:

- Scan and receive information from their environment
- Relate information against their operating norms, policy guidelines etc
- Establish when deviations from the norms/guidelines occur;
- Take corrective action, in response to the deviations.

To detect changes in the environment suggests that the learning organisation must have the tools to scan and detect changes in the environment. However, it is not just about tools and systems, but it must also have the appropriate outlook or mindset which expects the environment to change, and also is geared to detecting and looking for the trends and markers in order to be ready to respond to those changes. It requires that the organisation must be able to create knowledge and insight, not only of their present reality, but also of potential future realities¹⁶⁵. Future realities seem to refer to a creative rendering of the future, using experience of cause and effect relationships. Not only must they be able to scan the environment and identify the appropriate responses in order to operate in their current environment, but they must also be able to identify those signs and insights into the future environment, and develop the appropriate responses to ensure survival or indeed to exploit the opportunities it may hold. This appears similar to enterprise risk management as we discussed earlier, namely a process to identify potential or manufactured realities from the trends and experiences of the organisation and develop strategies to ensure the strategic objectives are met. Whilst traditional organisations monitor the environment to shy away from uncertainty, and to ensure stable internal operations, organisational learning needs an attitude which embraces the uncertainty and views it as an opportunity to learn.

The learning debate has also thrown up the distinction between single and double loop learning. The former refers to where individuals identify environment changes and their

¹⁶⁴ Morgan, G (1986) Images of Organisations, Pg 86

¹⁶⁵ Morgan, G (1986) Images of Organisations, Pg 91

learning is focussed on identifying plans and strategies to overcome the changes, in order to maintain the objectives or operating norms which exist. Single loop learning seeks to maintain the stability of the organisation and does not upset the balance by questioning or undermining the operating norms, strategies or policies of the organisation¹⁶⁶. Double loop learning on the other hand, requires identifying the errors or changes, and includes the critical evaluation of the operating norms, strategies and policies, in order to determine their ongoing relevance¹⁶⁷. In order to be adept at learning and effecting change, individuals in the organisation must know, and intimately understand, what the operating norms and frameworks are, and how they work. Only then can they, in the face of a changing environment, understand the impact of the norms, how to change it and importantly what to change it to. Generally in bureaucratic type organisations, authority and control structures are based on position in the hierarchy and in the performance against certain established targets¹⁶⁸. These barriers to learning include also the perceptions of personal power tied to the positions, or focus on past experience¹⁶⁹. We will discuss further aspects on single and double loop learning further on in this paper.

3.2.2 Sensemaking

Organisational sensemaking refers to the way individuals interpret and understand their environment, and how their interactions with others result in learning by the collective. Sensemaking includes perceiving stimuli from the environment, interpreting and ascribing meaning to it, and taking action in a manner which reflects the meaning¹⁷⁰. Sensemaking is described by seven properties which are set out as follows¹⁷¹:

1. Grounded in identity construction – this property describes the individual as having multiple identities and which impact on the sensemaking process. When we are unable to confirm the identity which we currently are enacting, we feel the discord and it triggers sensemaking. We need to feel connected to the event, and what sense we make of it depends on who we are at that point¹⁷². Furthermore, construction

¹⁶⁶ West P Learning In Organisations: Theory and Practice Pg 52

¹⁶⁷ Hovland I, (2003) Knowledge Management and Organisational Learning: An International Development Perspective; Overseas Development Institute, pg 17

¹⁶⁸ West P Learning In Organisations: Theory and Practice Pg 57

¹⁶⁹ West P Learning In Organisations: Theory and Practice in Organisational Learning in the Automotive Sector 58

¹⁷⁰ Weick, KE. (1995) Sensemaking in Organizations Pg 5

¹⁷¹ Weick, KE. (1995) Sensemaking in Organizations Pg 17

¹⁷² Weick, KE. (1995) Sensemaking in Organizations Pg 26

implies that the individual is in constant engagement with himself, in the ongoing quest to confirm/establish his identity in relation to his surroundings, which seems to be an automatic process. It seems also to relate to the biases and heuristics, which are part of our makeup and cultural identity, informing the way we interpret and respond to the world around us¹⁷³.

2. Retrospective – this property suggests that meaning can only be made by looking back, with hindsight providing the means by which we can identify the links between the cause and the effect or consequence of actions. However, this hindsight is not necessarily complete, as our biases and filtering abilities allow us to select the most plausible cues when we “reconstruct” the event to make sense¹⁷⁴. This also suggests that past events and history may make an important contribution to the way we see the future, as our histories and experiences are the basis on what we perceive and what future we can project.
3. Enactive of sensible environments – enactment recognises that situations in which people find themselves and to which they respond are creations of their own, perhaps not totally, but there is a relationship between the individual and the environment, each of which shapes the other¹⁷⁵.
4. Social – this reflects sensemaking as a social process, and that the behaviour, and sense we make of our reality is to a great extent how we consider others to perceive us, whether they are present or not¹⁷⁶. In organisations this is more so since the sensemaking or learning process requires the interaction and sharing between people, which is referred to as intersubjective interactions.
5. Ongoing – this aspect suggests that the stream of experience does not stop and therefore does not restart, but reinforces that the sensemaking looks backwards to the past event.
6. Focused on and by extracted cues – this property reflects that people make sense of their environment by receiving information (cues) from it and interpreting it. However it also suggests that the cues are not necessarily the complete picture as we tend to

¹⁷³ Kahneman, D (2012) Thinking, Fast and Slow Pg 334

¹⁷⁴ Weick, KE. (1995) Sensemaking in Organizations Pg 28

¹⁷⁵ Weick, KE. (1995) Sensemaking in Organizations Pg32

¹⁷⁶ Weick, KE. (1995) Sensemaking in Organizations Pg39, 40

only pull out those cues which we are almost primed to because of the situation we find ourselves in and because of the politics and organisational culture we ascribe to. This seems to resonate with issues such as organisational context and culture and how it affects perception, particularly perception of risk¹⁷⁷. A point picked up by Weick is that the power of leadership is dependant in large part to the control of cues to which people are attendant, which is framed by aspects such as culture and context. Thus during the searching/scanning process, which cues we pull out is affected by the context and culture. During the interpretation process how we interpret the cues are also affected in the same way. Scanning is a natural, informal, ongoing and automatic process, because we will always scan the environment and look for cues which stand out in the stream. What stands out is determined by context and culture, including our objective, identities and other things we hold dear. How regularly we get surprised and how we interpret surprise are important aspects for learning and change. Furthermore, the extracted cues bind cognitive elements together which become real when acted upon¹⁷⁸.

7. Driven by plausibility rather than accuracy – this aspect of sensemaking acknowledges that the interpretation does not need to be accurate or correct, but must be plausible in that it takes into account or accommodates the facts or cues which are noticed. Sensemaking does not need accuracy because people believe what fits the facts and what they consider to be interesting, emotionally appealing or what their objectives require¹⁷⁹. People use these mental shortcuts also because we often don't have the time to further investigate and get more information. If accurate perceptions could be made it would probably immobilise the person and prevent them from acting.

Sensemaking includes the process of scanning or noticing, interpretation or analysis of the perceived cue, and learning or action. The sensemaking perspective is elegant in the way it accommodates the inherently messiness in the way people make sense of their surroundings and change their behaviour in relation to the sense they have made.

Organisations, seen from a sensemaking perspective take into account how individuals relate to each other and to collectives within the organisation. The individual, in the sensemaking

¹⁷⁷ Weick, KE. (1995) Sensemaking in Organizations Pg51

¹⁷⁸ Weick, KE. (1995) Sensemaking in Organizations Pg 52

¹⁷⁹ Weick, KE. (1995) Sensemaking in Organizations Pg39, 57

process has a conversation with himself (creating intrasubjective meaning), but may also be seen to prop up three more levels of meaning, referred to as the intersubjective, generic subjective and extrasubjective levels. Intersubjective sensemaking refers to the interactions between individuals, probably largely informally, testing perspectives or feedback whereby they develop a shared perspective¹⁸⁰. This is largely a sharing between the individuals themselves, and not sharing of norms or standards and not a formalised or pervading perspective. In the generic subjective mode, where the organisation typically resides, the individuals disappear and the individual acts here as a member of the collective. The meanings here resonate with the concepts of shared understanding, organisational culture and other prominent and formal features of organisational learning¹⁸¹. Interactions at the generic subjectivity (organisations) level are characterised by stability as organisations and organisational cultures and artefacts develop to provide stability. However, when these routines are thrown by changes or errors, the uncertainty level increases, and the interactions at generic subjective become strained, the interactions drop down to interactive subjective levels, where people together make sense¹⁸². During times of uncertainty interactions shift between intersubjective and generic subjective but the creative potential resides at the intersubjective level (interactions between people). Rich forms of interaction, such as face to face ones will lose innovative effectiveness when replaced by less rich email-type interaction (generic subjective type)¹⁸³. These face to face interactions are regularly used to surface the risks and analyse risk, especially because the risk committee are multicultural groupings with limited shared subcultural backgrounds. Seen in this way, the role of the individual and of learning by the individual (as intersubjective interaction) is a central component or starting point of learning by the organisation. Furthermore, in the face of uncertainty and change, the tension that arises is largely because the control features inherent in the generic (organisation) is at loggerheads with the risky and innovative meaning making of the individual¹⁸⁴.

The individual, seen as processor of information uses the information to make sense of their reality and environment¹⁸⁵. The individual receives information which comes at him or to him from the environment, and the learning is driven by gathering the information and integrating

¹⁸⁰ Weick, KE. (1995) Sensemaking in Organizations Pg 71

¹⁸¹ Weick, KE. (1995) Sensemaking in Organizations Pg 75

¹⁸² Weick, KE. (1995) Sensemaking in Organizations Pg71

¹⁸³ Weick, KE. (1995) Sensemaking in Organizations Pg73

¹⁸⁴ Weick, KE. (1995) Sensemaking in Organizations Pg75

¹⁸⁵ Van Winkelen C & McKenzie (2007) Integrating Individual and Organisational Learning Initiatives P 528

it in order to render more accurate mental depictions of the world around him. The frames and reference points, or streams of experience which the individual has developed over time is cross-referenced with this new information, and where incongruencies are identified, changes to the stream of experience and the reality will be made. This view also corresponds with the technical view of organisational knowledge creation, which has been described as identifying, collecting and redistributing information¹⁸⁶. In this perspective the environment is an objective reality and learning is about understanding that objective reality. An alternate view¹⁸⁷ suggests that the individual learns by creating meaning based on his/her stream of experience, feeling and ideas. This suggests that the environment is no longer an objective reality but a subjective depiction or interpretation and the interpretation is fashioned by the mental model or memory of the individual. The perspective that what we notice or perceive or what cues we notice has similarly been raised in Chapter 2 in that managers make choices of what risks and stimuli to accept or consider based on mental models driven by assumptions and biases.

Most models of learning similarly show that the organisation needs to be able to perceive the errors and changes happening in the environment, to analyse, interpret and attribute meaning to it, and to apply it to behaviour, that is to take action. Daft and Weick presented a model of organisational learning involving scanning (monitoring the environment and receiving data about it), interpretation (translation of the events happening in the environment and making sense of it in relation to past knowledge of the environment), and learning (knowledge about the interactions between environment and organisation action)¹⁸⁸. The relationship between the three components of the model is set out in the reproduction of their model below:

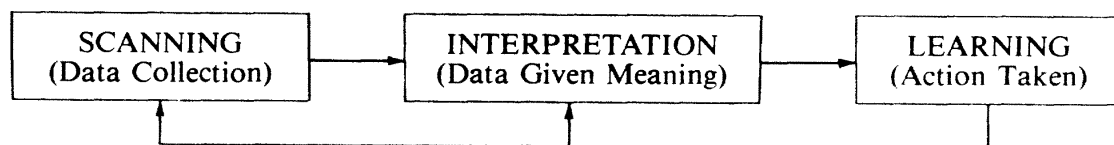


Figure 5: Relationship between Scanning, Interpretation and Learning¹⁸⁹.

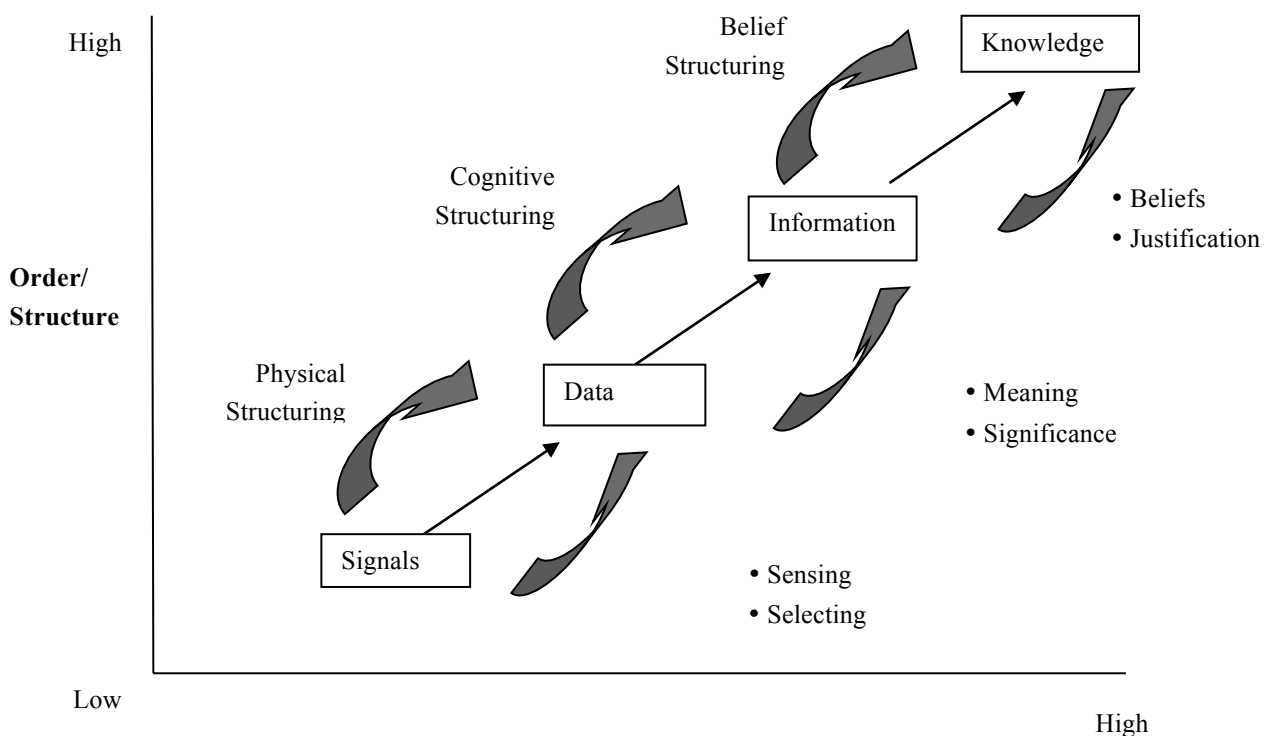
¹⁸⁶ Van Winkelen C & McKenzie (2007) Integrating Individual and Organisational Learning Initiatives Pg 528

¹⁸⁷ Van Winkelen C & McKenzie (2007) Integrating Individual and Organisational Learning Initiatives 528

¹⁸⁸ Daft R and Weick K, (1984) Toward a Model of Organisations as Interpretation Systems Pg 286

¹⁸⁹ Daft R and Weick K, (1984) Toward a Model of Organisations as Interpretation Systems Pg 286

These models depict certain similarities, as both require an ability to detect information (scanning), and ability to reference the incoming information against operating norms, experience etc (interpretation, relate information against norms and identify deviations), and then act by changing behaviour (learn or take corrective action). Choo has a very traditional¹⁹⁰ way of relating signal, data, information and knowledge as a process of transformation in relation to human agency and order or structure. The figure below depicts the transformation to knowledge¹⁹¹.



¹⁹⁰ For a critique, see Müller, HP and Maasdorp CH, 'The data, information, and knowledge hierarchy and its ability to convince', Fifth IEEE International Conference on Research Challenges in Information Science Proceedings.

¹⁹¹ Choo, CW, (2006) The Knowing Organisation Pg 132

Figure 6: Data Information and Knowledge

This model depicts that the signal coming in from the environment is structured through a sensing and selecting process, into data. The relevance of the signal that is selected from the multitude to which the individual is exposed is dependent upon the previous experience and beliefs of the recipient. Data is again attributed with meaning and significance through a process of cognitive structuring, and the meanings attributed to the data are dependent on the mental models of the individual, and an ability to organise past thoughts and experiences (schemas). The mental models of the individual allow him to compare the data to other data, messages and ideas, thus linking them into a coherent, viable interpretation¹⁹². Data becomes information once the individual has attached meaning and relevance to it. Information, in its turn becomes knowledge when it causes the individual to form justified true beliefs about the world, where knowledge is defined as “justified true belief”¹⁹³. At the level of organisation, use of the information becomes knowledge as a higher level of structuring (into belief) and understanding (justified belief) is attained than for information. In organisational settings, justification is inevitably a public process, as the individual must be challenged to justify the beliefs he espouses during sharing¹⁹⁴. This will bring into play the usual barriers to sharing such as the lack of a common language, fear of failure based on previous experience with failure, communication and reporting lines which militate against sharing, and the political tensions and issues which may exist in the organisation.

Looking at the relationship between individual and organisation from a sensemaking and learning perspective, Tovstiga and others¹⁹⁵ conducted an interesting study on a string quartet as a complex organisation. From this study they identified a framework for relating the interactions between the individual and the collective learning processes. They then suggested a framework which also seems to resonate with Weick’s discussion around intersubjective and generic subjective movement in the learning process mentioned above.

¹⁹² Choo, CW, (2006) *The Knowing Organisation* Pg 133. The author suggests that mental models are generated in order to allow the individual to link these messages and data to allow a coherent interpretation to emerge.

¹⁹³ Choo, CW, (2006) *The Knowing Organisation* Pg 133

¹⁹⁴ Choo, CW, (2006) *The Knowing Organisation* Pg 135

¹⁹⁵ Tovstiga G, Odenthal S and Goerner S (2004) *Sensemaking and Learning in Complex Organisations: The String Quartet Revisited*.

The framework is set out below¹⁹⁶:

Level	Learning (and Sense-making) Process	Inputs / Outcomes
Individual	Intuiting <ul style="list-style-type: none"> • Dependent on some form of pattern recognition; • Pattern recognition supports exploitation; • Important also for exploration through new insights 	<ul style="list-style-type: none"> • Experiential Knowledge • Pattern recognition / Images • Metaphors
(Individual)	Interpreting <ul style="list-style-type: none"> • Explaining through words, actions • Development of cognitive maps • May result in potentially conflicting interpretations 	<ul style="list-style-type: none"> • Language • Cognitive map • Dialogue
(Collective)	Integrating <ul style="list-style-type: none"> • Developing shared understanding • Taking coordinated action through mutual adjustment • Shared understanding through dialogue, story-telling 	<ul style="list-style-type: none"> • Shared understanding • Mutual adjustments • Interactive systems
Collective	Institutionalizing <ul style="list-style-type: none"> • Establishment of routinized actions • Embedding of organizational routines • Embedding of 'unwritten rules of the game' 	<ul style="list-style-type: none"> • Routines • Diagnostic systems • Rules and procedures

Figure 7 Organization Learning Framework (from Crossan *et al*, 1999)

If these models are correct, then the ability of organisations to learn will be affected by their ability to scan the environment, interpret and act in accordance with what they have interpreted. Indeed, because of the link between individual learning and organisational learning, organisational learning is impacted by the extent to which scanning processes, interpreting process and action is allowed to individuals. During the scanning process, organisational culture and biases play a role in what cues are picked up, as well as to whether people want to share their perceptions. It may also be affected by the organisational structure which prevents easy flow of information. Organisational culture, mental models also play a role and affect interpretation of the cues. Furthermore, interpretation can be affected by the extent of the error or change, which affects the level of anxiety or uncertainty which is generated. Single loop learning (first order learning) deals with incremental changes whilst maintaining operating norms, which will generate less anxiety than double loop learning.

¹⁹⁶ Tovstiga, et al (2004) Sensemaking and Learning in Complex Organisations: The String Quartet Revisited Pg 3

In conclusion, individuals learn, and by their learning this can result in organisational learning, although this is not a foregone conclusion, as individuals are not obliged to surrender their beliefs and mental models to the organisation. In order for organisational learning to occur, conditions and circumstances must favour learning, in that they should be able to receive information from the environment, as well as interpret and share with others, informally and formally, and then embed the learning into routinised actions and rules of the organisation. But what are those conditions and circumstances? While the learning models are simple enough and easily understood, the implementation of organisational learning is constrained by the deeper issues, some of which we will discuss below. These include aspects such as organisational culture, organisational change and the impact of uncertainty.

3.3 Organisational Culture

Organisational culture plays an important role in the concept of organisational learning. Culture is a powerful yet covert, invisible force which makes a great impact on organisational activity¹⁹⁷. It provides stability and eases the anxiety people feel because it provides predictable patterns and norms of behaviour and is the outcome of a social learning process¹⁹⁸. Culture can be described or characterised by as shared meanings, shared beliefs, mental models, and shared understanding¹⁹⁹. These shared meanings are dynamic and are constantly being reviewed as people are constantly reviewing and reconstructing their reality. Individuals create meaning using culture as a filter to generate meaning. It is a sense making mechanism that acts as a guide to what is or is not acceptable, and shapes how they behave in situations²⁰⁰. Cultures are an important aspect of organisational life as they establish the value system of the organisation, and provide the framework for the behaviour of the members²⁰¹. It informs them of what is acceptable and what is not, and of how to act, and what is expected of them.

Organisational memory and mental models are an important component of any discussion on organisational culture and on organisational learning. Memory is an important component of

¹⁹⁷ Schein, E (2010) *Organisational Culture and Leadership* pg 14

¹⁹⁸ Schein, E (2010) *Organisational Culture and Leadership* pg 17

¹⁹⁹ Morgan, G (1986) *Images of Organisations*, Pg 140; also see Schein, E (2010) *Organisational Culture and Leadership* pg 14-16

²⁰⁰ Wang, CL and Ahmed PK, (2003) *Organisational Learning: A Critical Review*, Pg 11

²⁰¹ O' Keefe, T (2002), *Organisational Learning: A New Perspective* Pg 130

learning, both for the individual and for the organisation. Memory, from an organisational perspective could include the artefacts and historical documents representing old transactions, such as invoices, financial statements, strategies, operational plans, standard operating procedures etc. However, organisational memory, as with individual memory is the assumptions and premises we use as the filter through which we see and interpret the world around us. It determines what the organisation notices or pays attention to, or how to respond²⁰². Organisational memory includes mental models, referring both to the mental models of the individual and to that of the organisation. While organisations can learn, such learning is through the individual learning, but the process is not automatic. What then is required to ensure that individual learning makes the transition to the organisational sphere?

In an attempt to integrate individual and organisational learning and to depict the transfer from one to the other, Kim proposes that the knowledge transfer from the individual to organisational level takes place through the exchange of individual and shared mental models. In his model, the individual learns through a process whereby individual belief systems undergo change, and those changes reflect in the mental model of the individual. The organisation is impacted by the change, because it can only learn through the individual, and the individual mental model influences the shared mental model of the organisation²⁰³. Organisational memory relates to both the individual and shared mental model, and the advancement of both is deeply in the interest of organisational learning. These models can be explicit, implicit or tacit, but the relevance to organisational learning, that is, to affecting the shared mental models requires that the individual mental models are rendered explicit and are shared²⁰⁴.

Changes to the individual mental models eventually influence and change the organisation's mental model, and the extent of the influence by the individual mental model is dependent on the influence of the individual or group within the organisation. Mental models are generated from what is learned from explicit or implicit sources²⁰⁵. Where the individual mental model changes, for these changes to affect the organisations mental model, a mechanism to share

** Kim D, (1993) The Link between Individual and Organisational Learning Pg 11

²⁰³ Kim D, (1993) The Link between Individual and Organisational Learning, Pg 10. See also Choo, CW, (2006) The Knowing Organisation Pg 299

²⁰⁴ Kim, D (1993) The Link between Individual and Organisational Learning, Pg 15. Als see Wang, CL and Ahmed PK, (2003) Organisational Learning: A Critical Review, Pg 12

²⁰⁵ Kim, D (1993) The Link between Individual and Organisational Learning, Pg 15

and spread the mental model is needed, which will allow individual assumptions, views and interpretations to be shared and evaluated.

Culture is usually developed from past experience, and from what worked previously for the organisation. Past successes, and the routines and rules that they are associated with can have an enduring quality and can trap the organisation within that paradigm, within the past, because elements of the organisational cultures are embedded within the rules and processes²⁰⁶. Thus, while organisational culture provides some stability as a protection from uncertainty, this stability can, as the organisation or group matures constrain growth and the ability to change. In order for lasting change to occur, these shared meanings, cultures and behaviours must be unlearned, which may be difficult because they are embedded into the routines and rules of the organisation and are thus generally stable²⁰⁷.

While individuals are crucial in the organisational learning context, cultivating a learning attitude in each individual is not sufficient. While each of the employees may be knowledge workers, organisations must also cultivate a culture which fosters learning, and this includes going beyond individual learning to developing and implementing processes and structures for team learning²⁰⁸. Organisations must promote the use of processes and techniques which allow the individuals to share their own experiences and to generate shared world views.

Organisations also usually have more than one culture. Different types of cultures can also develop within organisations, such as those identified by Schein, namely macro cultures, organisational cultures, subcultures and micro cultures. As the organisation becomes more complex, it develops specialised units for operations, such as human resources, projects, finance, strategy etc, and these groups or units develop common frames of reference, languages and assumptions²⁰⁹. Indeed, the clashing of subcultures can give rise to the integration problems faced by most organisations. Membership of such subcultures will often cause people to value and protect the cultural attributes or characteristics²¹⁰. Language and jargon also exhibits membership of a subculture, and this can act as a mechanism to block

²⁰⁶ Schein, E (2010) *Organisational Culture and Leadership* pg 56; Morgan, G (1986) *Images of Organisations*, Pg 144

²⁰⁷ West P *Learning In Organisations: Theory and Practice* Pg 56

²⁰⁸ Wang, CL and Ahmed PK, (2003) *Organisational Learning: A Critical Review*, Pg 11

²⁰⁹ Schein E (1993), *On Dialogue, Culture and Organisational Learning*, Pg 29

²¹⁰ Schein, E (1993), *On Dialogue, Culture and Organisational Learning* Pg 35

learning across subcultural boundaries, such as between different functional units. Language and mental models are significantly impacted by the existence of these sub cultures²¹¹.

The existence of subcultures can affect how learning happens, as well as the efficiency and effectiveness of the learning process. However when dealing with groups in an organisation who share the same systems of meaning, that is they share the same subculture, the process of learning may be easier as they learn from each other within the area of their speciality. Learning activities become more difficult when done across functional boundaries, as professional pride, and individual self worth perspectives, defensive routines add complexity to the learning environment²¹². Professional qualifications and membership of a professional body, holds a certain value and reflects a social status with which its members identify, and which identity they are usually not keen to relinquish. In acting out the strategies and decisions, individuals also take into account their relative positions in the system, accounting for political, social or economic interests they may have. These positions will impact on the way they interpret situations and environments, make sense of it and in the decisions they make, more often to protect those interests. This will be an issue for those trying to foster organisational learning as this will militate against sharing and the developing of shared mental models and cultures. However, while having the same background experience and being integrated to the subculture will help the generation of shared meaning, those who are not members of the subculture, but who have sufficient background information can sometimes develop some meaningful sharing²¹³. The challenge will thus be to generate sufficient background knowledge between the non members to allow for meaningful meeting of cultures.

Dealing with organisational learning and culture is a complex issue in that culture is needed by individuals as a stabilising force, which allows people to make meaning of the world around them and to render it more predictable²¹⁴. Yet, in the face of rapid change and environmental turbulence organisations are asked to be flexible and adaptive, yet resilient. Schein suggests that organisations must foster a culture which embraces learning and change. Such a culture is typified by some of the following features:

²¹¹ Schein E (1993), "On Dialogue, Culture and Organisational Learning", in *Reflections* Pg 37

²¹² Van Winkelen, C & McKenzie, J (2007) Integrating Individual and Organisational Learning Initiatives. Pg 534

²¹³ Rooney, D & Schneider U (2004) The Material, Mental, Historical and Social Character of Knowledge Pg 24

²¹⁴ Schein, E (2010) Organisational Culture and Leadership pg 365

- learning to learn.
- Commitment to transparent communication
- a proactive approach to dealing with problems, issues and errors facing the organisation,
- Embrace diversity and cultural cooperation

3.3.1 Learning to learn

The learning concept promoted as part of organisational includes the notions of single loop learning and double loop learning. Most organisations are no strangers to single loop learning systems. As has been mentioned before, single loop learning occurs when people identify changes or errors in the environment and the learning they experience is directed to identify strategies to overcome errors and challenges, in order to maintain the outputs previously agreed to and the policy guidelines and operations of the organisation. All the learning and changes occur within the context of the pre-existing operating norms of the organisation. Learning in this context serves to maintain stability of the organisation and to preserve the status quo in response to changes in the environment. This is first order learning, regarded as the lowest form of learning where members become socialised into this lower order paradigm, which then become difficult to change²¹⁵.

Second order learning is a more complex form of learning, where individuals in the organisation are required to learn how to learn. This process entails learning through identifying errors and changes, reflecting on the context and history, and designing new strategies to deal with them. Double loop learning deals with the type of learning whereby the operating norms, strategies, and policy guidelines themselves are critically evaluated and changed²¹⁶. In the double loop learning context, behaviour of the organisation is characterised by exploration, through active risk-taking, experimenting, discovery and innovation. This type of learning presupposes the ability to scan the environment for changes, to compare the changes against existing norms and to evaluate the operating norm for appropriateness and change operating norms where appropriate. It is a self-questioning ability which allows the system to regulate itself, to change the theory-in-use or norm. It requests the individual to

²¹⁵ West P Learning In Organisations: Theory and Practice Pg 52

²¹⁶ Hovland I, (2003) Knowledge Management and Organisational Learning: An International Development Perspective; , pg 17 , Also see Tovstigma et al, Sensemaking and Learning in Complex Organisations: The String Quartet Revisited Pg 3

question the status quo, and to consider alternative ways of doing business, or achieving the objective²¹⁷.

Double loop enquiry is generally practiced in corporate strategy and in change management²¹⁸, which seeks to understand what is happening in the environment, understand competitors in relation to its own competitive advantage and to rearrange its internal and external relations accordingly. It does not appear to work well at the operational level, despite the development of initiatives which attempt to stimulate this type of self-criticism at the operational level. The Kaizen and Total Quality Movement²¹⁹ for example seek to promote continuous improvement at operational level in organisations through:

- Identifying the problem, and further, identify and investigate the causes;
- Evaluate the operating norms, practices, and to find better ways of operating;
- Trying to establish the mindsets, and value systems which embrace change and double learning

Integrating strategic and operational double learning initiatives appear to be more difficult, as resistance and defensive routines face saving measures and incentive systems which reward only positive results encountered at the operational level result in failure of such initiatives²²⁰. These “face saving” routines are natural and ingrained, and are the result of socialisation, to an extent approved of by the culture of the organisation²²¹. Incentive systems which recognise problem identification and solving as worthwhile, and which focuses on loss reduction as well as on profit generation, will reward excellence in learning. Learning programmes for groups who share similar experience, culture and language (such as a functional group of, say engineers) will be easier, as the creation of meaning or sense making will be facilitated by the common language and culture.

Van Wakelin and McKenzie, when evaluating integration of individual and organisational learning initiatives, found that the political challenges which exist across functional boundaries, also exist across the boundaries of the sub organisations involved in learning²²².

²¹⁷ Morgan, G (1986) Images of Organisations, Pg 93

²¹⁸ West P Learning In Organisations: Theory and Practice Pg 52

²¹⁹ Morgan, G (1986) Images of Organisations, Pg94.

²²⁰ Morgan, G (1986) Images of Organisations, Pg 93

²²¹ West P Learning In Organisations: Theory and Practice pg 55

²²² Van Winkelen, C & McKenzie, J (2007) Integrating Individual and Organisational Learning Initiatives Pg 535

Learning by the individual requires the active participation and willingness of the individual, and organisations will need to identify how their members prefer to learn, and present such initiatives in a manner which solicits their buy-in and participation. The ability to break down these barriers and integrate various learning initiatives is crucial to organisational learning. Organisations, and their agents must acknowledge the inherent uncertainty and instability of their environment, and develop cultures, attitudes and organisational processes which embrace the uncertainty, seek it out and support its members when failures occur, which are also a necessary part of learning²²³. Bearing in mind that not all members of the organisation may have this attitude towards learning or uncertainty, the learning organisation may be a functional unit within the greater organisation, but one which will embrace risk, uncertainty, planning for failure, and ensure that organisational structures facilitate the free flow of information. It may be a micro cultural organisation as suggested by Schein²²⁴, a multicultural grouping within the organisation, akin to a risk management committee, or a task team made up of members from different backgrounds and parts of the organisation.

Such teams would need to find common ground, notwithstanding their different backgrounds, to overcome their deference rituals and other cultural barriers²²⁵. Language for example can act as a barrier when the terminology and other artefacts favour a dominant participant in the group. These can be exacerbated when rules like politeness, tact and face saving militate against public discussion around trust and intimacy. Risk committees as required by the normative risk management standards mirror these types of multicultural teams and can be a site around which double loop learning can be focussed.

3.3.2 Transparent communications

Communications is an important component for organisational learning in that it should ensure that information flows easily and timeously through the organisation. A learning culture also promotes that communication and information are crucial to the organisation, because the processes of scanning, interpretation and the implementation of actions require openness and effective communications²²⁶. In this sense, it is not to undermine rules of etiquette and courtesy, but to ensure that there is sufficient sharing of information and data relating to the organisations objectives, rules and norms and tasks.

²²³ Morgan, G (1986) Images of Organisations, Pg 94

²²⁴ Schein, E (2010) Organisational Culture and Leadership pg 2

²²⁵ Schein, E (2010) Organisational Culture and Leadership pg 385

²²⁶ Schein, E (2010) Organisational Culture and Leadership pg 369

An important aspect of transparency and communication relates to the building up of trust between members of the team or organisation, which trust is crucial for purposes of sharing experiences, mental models and ideas in organisational settings. Traditional management approaches see the organisation being steered from the top, where targets and controls are set for the rest of the organisation to aim for and meet. This encourages single loop learning, and limits the potential for questioning the targets and controls, and seeking alternatives thereto. Double loop learning requires that the members of an organisation must be given the opportunity and the space to question the norms, targets in order for the organisation to truly learn. Morgan suggests that double loop learning will benefit from establishing parameters within which the creativity of the members of the organisation can set free to perform actions in response (or shall we say equilibrium?) with the environment²²⁷.

The parameters in this case are a set of rules which define the outer limits of the behaviour or action which members may perform, a sort of a “Danger: do not go beyond this point” marker, but does not limit the member to what must be achieved or how. The member thus has the latitude to act in any manner which will resonate with the needs or requirements of the environment with which he/she is interacting, within the confines of the parameters. The sole use of targets and controls imposed from above are narrow constraints which limit the creativity and space needed for double loop learning²²⁸. However, to what extent can the member question the parameters, which will exhibit the double loop learning characteristic²²⁹, without causing the traditional, status quo component of the organisation to intervene to shut down the change process? This is a necessary tension arising out of the learning process and which organisations and its members must learn to deal with appropriately for new norms to emerge, and the use of dialogue mechanisms can facilitate a consensual setting of the parameters as a guide or limit to action²³⁰. He suggests that the Ringi ritual for the approval of policy documents is an example of the process which can allow for resistance to be overcome and the new operating processes to emerge. Causal maps may be another way in which the necessary discussion can be directed to allow effective learning to take place²³¹. In mapping cause effect relations during risk management activities for projects, it was found

²²⁷ Morgan, G (1986) Images of Organisations, Pg 99

²²⁸ Morgan, G (1986) Images of Organisations, Pg 95

²²⁹ Morgan, G (1986) Images of Organisations, Pg 97. Morgan also indicates that it is a paradox that the learning process must be guided by the operating norms which themselves have to be questioned.

²³⁰ Morgan, G (1986) Images of Organisations, Pg 97-99.

²³¹ Abdullah J, et al Facilitating Organisational Learning through Causal Mapping Techniques Para 8

that group discussion encouraged communications and sharing, and helped to create risk models as artefacts depicting organisational culture. Documentation of these models facilitate reuse and review processes.

Communications is a management activity which is well known, although, in respect of learning no normative requirements exist to ensure the adequate level of transparency exists. However, such requirements have been stipulated in other management areas, such as risk management and financial management, which could facilitate the needed level of transparency to engender trust.

3.3.3 Proactive approach to dealing with problems

Pro-activeness in this sense suggests that the organisation seeks to resolve problems and challenges. It thus is geared to scan the environment regularly, looking for changes and errors, and actively seeking solutions. Cultures which exhibit this learning orientation will put in place mechanisms and processes by which problems/errors can be identified and resolved. It is not only about making sure that processes exist to surface and share these problems, but also to acknowledge that the problem and seeking solution is a the responsibility of the team, rather than one person. This approach of shared responsibility also lends credibility to the solution²³². It will also use the team knowledge base as an asset in the resolution of problems.

3.3.4 Embracing diversity

As the environment in which the organisation operates becomes more complex and more turbulent, the organisation will likely require more diversity in its repertoire of cultures. Complexity in the environment will have the effect of increasing the uncertainty because there are more diverse elements and they interact with each other more frequently and in more diverse ways. But, in view of our biases and limitations, we only notice the cues which are within our belief systems. Those which are outside of our belief systems we would not notice²³³. By embracing variety in its cultural diversity and its belief systems, organisations will mirror the variety in the environment and will then be in a better position to see/notice the cues and thus make sense of the events, that is, to learn. Such diversity is prevalent in micro cultural teams such as risk committees, task teams and project teams.

²³² Schein, E (2010) Organisational Culture and Leadership pg 366

²³³ Weick, K (1995) Sensemaking in Organisations Pg 87

3.3.5 Organisational change and learning

Organisational learning models discussed earlier reflect the processes of scanning and identification of errors and changes, which are then interpreted and analysed, and strategies are implemented to deal with them. The outcome of these processes is essentially that the organisation is changed as a result of the learning that has occurred. At an individual level, the intersubjective interactions result in creative discussion and problem solving, leading to learning and changes within the mental models of the individuals. Learning cultures must embrace change as an important corollary to learning, as this change provides the sought-after self correction and resilience in the face of environmental shifts. The goal of organisational learning is accordingly to generate sufficient responses or behaviours to implement change²³⁴. Change has been generally divided into two types, namely change taking place within the system (first order learning) and change to the system itself (second order learning)²³⁵.

While volumes have been written about change and organisational change, numerous social scientists and commentators have lamented an inability to establish the centrality of change as a feature of human and organisational life²³⁶. A culture which promotes learning must recognise that learning, and thus organisational change does not happen from the outside, but that organisations are built up incrementally, and that the organisations themselves are the emergent properties of change²³⁷. Rather than see change as something that happens in organisations, we should rather consider organisations as existing as a result of change processes. This perspective by Tsoukas and Chia propose that organisational change is the norm, and that stability and the seeking after stability is aberrant organisational behaviour. Organisations are not complete at birth or indeed at any point in its life, but are a set of unfolding processes and events, and the unfolding is generated by its ongoing operational activity²³⁸. As it acts, and receives feedback, so it notices inefficiencies and implements incremental changes, which adds to the unfolding of the organisation.

This improvisation happens so that we can accommodate new experiences which diverge from what we know, or have previously experienced. Change happens from the inside out,

²³⁴ Alas, R 2007 Organisational Change from a Learning Perspective Pg 48

²³⁵ Alas, R 2007 Organisational Change from a Learning Perspective Pg 44, Bessant, J and Francis D, Dealing with Discontinuity How to sharpen up your innovation act, Pg 5

²³⁶ Tsoukas H & Chia R, (2002) On Organisational Becoming: Rethinking Organisational Change Pg 569

²³⁷ Tsoukas H & Chia R, (2002) On Organisational Becoming: Rethinking Organisational Change Pg 570.

²³⁸ Tsoukas H & Chia R, (2002) On Organisational Becoming: Rethinking Organisational Change Pg 577

but is not a specially arranged event which needs to be managed. While organisations do receive and respond to stimuli from outside, such as mergers, regulations, and other external events, it is the manner in which the organisation responds which is crucial for change, rather than the stimulus or its source²³⁹.

Change can occur through convergence which refers to small incremental changes as the organisation is built up and refined over time, or through upheaval, which is abrupt and dramatic change²⁴⁰. Convergence is the fine tuning or incremental adaptations of processes, procedures, whilst maintaining the overall strategies, structures and people in the organisation. The change happens within the existing organisational paradigm. Single loop learning appears to accommodate the convergent type of change, in that it stabilises the organisation in the face of discord between internal or operational processes and the environment requirements²⁴¹.

Upheaval represents dramatic change which is more durable although more painful whilst effecting deep changes to the organisation, including its most treasured operating norms and indeed its very objective. It is characterised by disruptive events which undermine successful organisations with established organisational behaviours. It disrupts them because these behaviours no longer are effective in responding to environmental change²⁴². Success and successful organisational activity tends to generate stability, because we retry the behaviours which generated the success, and in so doing we fight change. Upheavals can be internally generated, and it can be used as a mechanism for driving deep organisational change²⁴³.

This perspective of organisational change seems to see organisations as constantly mutating processes and structures whilst at the same time seeking and imposing stability by making human behaviour more predictable²⁴⁴. In the language of Weick, organisations are interactions which are constantly shifting between the generic (organisational and control/stability-driven) and intersubjective (individual). At the level of the organisation, the interaction is to create stable environments for predictability of human behaviour and thus the

²³⁹ Tsoukas H & Chia R, (2002) On Organisational Becoming: Rethinking Organisational Change Pg 578

²⁴⁰ Tushman, ML, et al,(1986) Convergence and Upheaval: Managing the Unsteady Pace of Organisational Evolution, Pg 534

²⁴¹ Alas, R 2007 Organisational Change from a Learning Perspective Pg 44

²⁴² Bessant, J and Fracis D, Dealing with Discontinuity How to sharpen up your innovation act, Pg 5, 6

²⁴³ Tushman, ML, et al,(1986) Convergence and Upheaval: Managing the Unsteady Pace of Organisational Evolution Pg 538

²⁴⁴ Tsoukas H & Chia R, (2002) On Organisational Becoming: Rethinking Organisational Change Pg 570

interactions are to establish and maintain controls. At the intersubjective/individual level humans are constantly scanning and interpreting, making sense of the information it is receiving from the environment and are creatively identifying and implementing solutions to errors they come across. But how does one get to understand and observe such change, which is constantly and relentlessly unfurling? We can do so by “placing ourselves at the centre of the unfolding phenomenon”²⁴⁵ and by intuitively getting to know the change from within. This implies going through and experiencing the change ourselves as opposed to understanding as an outsider. Practically, this would mean we would need to subject our mental models and our organisational cultures to scrutiny, and to allow them to be changed through sharing and review or reflection so that we can perceive (as in feel, know intimately) the change rather than merely understand it conceptually.

Second order learning and change ought to be approached using interactive and participatory processes, because these can take advantage of optimism which is inevitably built up towards exciting visions of the future²⁴⁶. Such visions can change mental models and shared images which will lead to changed behaviours. Changing mental models are easier when solutions and changes have emotional appeal. Multicultural teams and established processes using scanning, interpretation and learning which are trusted are also useful during these processes. Management activities which are rich in mechanisms of reflection, such as scenario planning, strategic planning processes and risk management processes, may be useful in this regard. They place the practitioners maybe not at the very centre of the unfolding events, but certainly within the flow, since they focus on future states against the background of the past processes and structures. In this way they are looking for impending changes and fractures.

In order to participate and effectively manage disruptive change and upheaval, it is suggested that organisations develop the ability to extend their peripheral vision, to be able to scan and notice niche and fringe markets, products and opportunities. They also need to be able to improve their noticing ability, to ensure they do not ignore important changes happening in the environment, and to develop different mechanisms for projecting future states. These include various management planning and reporting mechanisms, including risk management and scenario planning, where the media and interactions are rich face to face interactions and where the focus is on sharing mental models and developing shared meanings.

²⁴⁵ Tsoukas H & Chia R, (2002) On Organisational Becoming: Rethinking Organisational Change Pg 571

²⁴⁶ Gharajedaghi J 2007 Systems Thinking A case for second order learning, pg 478

3.3.6 Decision making – managing uncertainty

Decision making and learning are linked. In the management context the knowledge and learning are inputs into decisions that have to be made. But decisions are never perfectly baked as they suffer from incomplete information or they are impacted by emotions, or from incomplete understanding of the information. We have discussed some of the issues around heuristics and biases in relation to perception of risk. When changes and errors are noticed, solutions are developed and then decisions have to be made. People make decisions and behave in a particular way, based on their experience and knowledge. This enactment of the knowledge base is often affected by aspects which limit intellectual capacity. These limits include that individuals do not have complete or accurate information at their disposal, or that their choices rely on both intuitive (tacit) and explicit knowledge, and that people are not completely rational²⁴⁷. The concept of bounded rationality suggests that people settle for action or a decision based on what they regard as sufficient information. But on what basis do people determine what information is sufficient, and which data set is relevant. Weick was of the view that sensemaking or learning was rendering the environment to an acceptable representation, as determined by the meaning the individual places upon the things and events which occur around him²⁴⁸. The rendering developed by the individual is based on his subjective experience. This picture informs the person of what the world is like and what he can expect from actions he may take, i.e. of the future state resulting from current actions. But what kick-starts the learning or sensemaking process in the first place and what makes them pay attention to the environment.

When the result of actions do not follow expected outcomes, this creates a situation of shock or surprise, interrupting the flow of experience and causing the individual to try to identify what the problem is and why the consequences are not as expected. In other words, the person tries to make sense of the problem by drawing more information about it. It is the shock or surprise which starts the sensemaking or learning process, and the types of shocks include those stemming from uncertainty and from ambiguity.

Uncertainty and ambiguity are thus “occasions for sensemaking” which occur regularly within the organisational context as it results in shocks which cause the members of the

²⁴⁷ Rooney, D & Schneider U (2004) *The Material, Mental, Historical and Social Character of Knowledge* Pg 31, also see our discussion on perception in Chapter 3 at pg 27.

²⁴⁸ Weick, KE. (1995) *Sensemaking in Organizations* Pg 14

organisation to take notice of what is happening²⁴⁹. However the consequences and the actions attendant on ambiguity and uncertainty are different. In respect of uncertainty, the shock related to it is ignorance, which is the trigger for sensemaking. This uncertainty could be described as uncertainty relating to what is happening, what changes are taking place in the environment, or uncertainty of the impact the changes will have on the organisation or uncertainty of the responses which may be required²⁵⁰.

Another definition considers that, in the social and organisational arena, people are obliged to act to ensure continuing relevance, and that they will act in accordance with their beliefs around the immediate future and their beliefs around what the consequences of their actions will be²⁵¹. Ignorance or uncertainty of the future and the consequences of their actions may also be disruptive because their belief around what consequences will flow from those actions is shaken when the information coming in contradicts that belief. The uncertainty causes the organisation to seek out information (cues) to explain the discrepancy²⁵². Uncertainty, particularly with regard to ignorance is then about not having sufficient information to render a meaningful picture.

Ambiguity on the other is not about having too little information, but about having too many interpretations or explanations from which to choose²⁵³, and the shock attendant on this is related more to confusion. As a trigger to learning or sensemaking, the presence of more than one interpretation shocks the organisation or individual into action, to try to resolve the ambiguity.

In situations of uncertainty, ignorance is in attendance, and in situations of ambiguity, it is confusion which provides the shock. Ignorance is resolved by providing more information, whilst ambiguity is resolved by providing a different type of information to try to resolve the confusion. In the case of confusion from ambiguity, where there are too many interpretations or meanings from which to choose, the confusion is generated from having too few interpretations or meanings available within the organisation to make sense of the variety available. Accordingly, the organisation typically should try to increase the variety of

²⁴⁹ Weick, KE. (1995) Sensemaking in Organizations pg 91

²⁵⁰ Weick, KE. (1995) Sensemaking in Organizations pg 95. These types of ignorance are referred to as state uncertainty, effect uncertainty and response uncertainty, as described by Frances Milliken.

²⁵¹ Weick, KE. (1995) Sensemaking in Organizations pg 95

²⁵² Weick, KE. (1995) Sensemaking in Organizations pg 96. In this instance he was using Stinchcombe's description of uncertainty.

²⁵³ Weick, KE. (1995) Sensemaking in Organizations pg 92.

interpretations available through the type of engagements which will increase the amount of and variety of cues which they have access to. In the face of such confusion, techniques and methods should be used that generate discussion, which include face to face meeting, discussions and workshops where meaning is defined, and refined through the creation of shared meanings²⁵⁴. To manage uncertainty is the mixture and sifting between intersubjective and generic subjective levels of interaction, because as uncertainty increases, the anxiety causes surprise and new sense must be made²⁵⁵. In the case of uncertainty due to insufficient information being available, the issue can be resolved by calling for more information.

Uncertainty and ambiguity shocks the organisation, causing it to look for reasons why the expected outcome is absent. It pushes the organisation into a situation where it seeks to learn. Can an organisation maintain a regular regimen of shocks to ensure constant seeking to learn? If uncertainty and ambiguity is the primer to learning, then to what extent can management activities which are characterised by uncertainty and which constantly seek it out contribute to the generation of a learning culture. Can the organisation prepare itself for the shocks which are attendant on these interruptions? Such crises disrupt the normal thought processes of people reducing their ability to make decisions. This seems to be the perspective underpinning the routines used in the army, or in risk management, contingency planning and business continuity planning, due to the disruption of normal thought processes during crises such as these.

3.4 Conclusion

In conclusion, traditional organisational structures are insufficient and ineffective in fostering learning, both at an individual level and at an organisational level. In the face of global environmental and economic uncertainty, organisations more and more need to be able to change direction quickly to be able to avoid negative consequences, but also to take advantage of any opportunities which may be available. This requires organisations to be vigilant to environmental conditions, to be able to detect and identify changes in the environment, and to relate them to operating norms and objectives, and to make changes to these norms where necessary.

Organisational learning is the process of learning. However, it is by no means clear yet whether organisations do learn, or whether the learning is just typified by the alignment of the learning of individuals within the organisation. Notwithstanding this lack of clarity on

²⁵⁴ Weick, KE. (1995) Sensemaking in Organizations pg 99

²⁵⁵ Weick, KE. (1995) Sensemaking in Organizations pg 71

organisational learning, there seems to be a groundswell of opinion favouring the individual as the starting point on all learning, including organisational learning.

Organisational learning occurs because the individual's mental models changes, which change eventually impacts on other individuals until it becomes the dominant model. Once this gets embedded into the routines, policies and processes of the organisation it becomes part of the traditions of the organisation. Learning is dependent on the experiences, intuition and observations of the individual. However, the individual is not obliged, nor is the organisation able to force him to reveal, or to make it available to the organisation. The extent to which the individual will do is determined by the level to which he buys in to the organisations objective and identifies with it. The implication for organisations include the realisation that no matter how many courses workers are sent on, unless there is a relationship of trust and affinity between the individual and the organisation, it is unlikely that the individual learning will result in organisational learning. Organisations need then to create an organisational culture fostering sharing and collaboration in an atmosphere of trust.

Organisational learning models suggest that the ability of the individual and thus the organisation to learn is constrained by the ability to receive information, and to interpret and share learning so that it becomes disseminated practice. Organisations must seek to foster the type of sharing where individuals are encouraged to surface their experience, perceptions and know how to their colleagues in formal and informal manners, tapping into both tacit and explicit knowledge forms. Management must take up the role of making sure that explicit knowledge is documented and communicated widely, and that tacit knowledge is shared in the most appropriate ways.

In our evaluation of aspects which affect organisational learning, we found that organisational culture was a crucial component of the learning cycle for organisations, as it acts as the filter through which we generate meaning. However, in looking at the effect of culture and subcultures, we understand that different subcultures will develop different systems of meaning, due to their language, experiences and professional affiliations. This will require some creative management to be able to overcome the natural exclusionary and defensive routines which inhibit learning. Learning across the silos and the subcultural boundaries of the organisation is often limited by the poor flow of information and communications across the frontiers. In order to facilitate organisational learning, a recognition of the importance of collaboration and the creation of relations of trust become

important. Managers need to manage boundaries to enable information flow, and to stimulate collaboration in this regard.

In our discussion on single and double loop learning we note that double loop learning is practiced within the strategy environment, but has not been able to integrate learning at both the strategy and operational level. One of the reasons was the prevalence of defensive routines which undermined learning processes.

In the next chapter, we will try to synthesize our understanding of the enterprise risk management discipline, in relation to organisational learning in order to determine the efficacy of using ERM as a tool for learning.

Chapter 4

ERM: a learning approach

4.1 Introduction

In the previous chapters, we discussed enterprise risk management (ERM) as well as organisational learning, attempting to identify the important components of each drawn from various authors and articles on the respective subjects. In this chapter we try to go further to lay a basis for viewing ERM as a set of norms or tools which could be used to facilitate learning in organisations. Insofar as organisational learning is concerned, we considered various definitions of learning, as well as of organisations. We also considered learning, more from the perspective of how people and organisations make sense of the world around them and what is happening in it, considering especially the views of Argyris, Weick, Morgan and others on the subject.

In dealing with Enterprise Risk Management (ERM) we looked at the maturation of the discipline and also considered the elements which make up the ERM process, noting the similarities and differences in the approaches, but finding that the approaches were largely similar. The ERM process proceeds along the following steps, namely, internal and external context, risk assessment (including identifying, analysing and evaluating risks), decisions on treatment of risk, communication and reporting and ongoing monitoring of risk and the environment.

In this chapter we intend to consider certain components of the ERM process and to evaluate them against those aspects of organisational learning, in order to establish whether the processes and tools of ERM can be used to foster and enhance organisational learning. In particular, we will look at internal and external context, risk assessment, risk treatment and decision making, communication, and monitoring and review.

4.2 Enterprise Risk Management as learning

In chapter 2 we dealt with risk management and the processes by which enterprise risk management is conducted. We also identified the norms and standards as set by the 3 well known standard setting institutions in the industry. While there are differences between the

standards, in general they treat risk management similarly, and suggest similar processes for enterprise risk management. The table below reflects some of these similarities:

ISO	Institute for Risk Management	COSO
Establishing the Context	Strategic Objectives	Internal Environment & Objective Setting
Risk Assessment <ul style="list-style-type: none"> • Risk Identification • Risk Analysis • Risk Evaluation 	Risk Assessment <ul style="list-style-type: none"> • Risk Identification and Analysis • Risk Evaluation 	Event Identification Risk Assessment
	Risk Reporting	
Risk Treatment	Decision making Risk Treatment	Risk Response Control Activities
Communication Consultation	Residual Risk Reporting	Information and Communication
Monitoring and Review	Monitoring	Monitoring

Table 2 Comparison between ISO, IRM and COSO Standards

In Chapter 3 we discussed models of organisational learning, including those proposed by Daft and Weick, which depicted it as set out in the figure below.

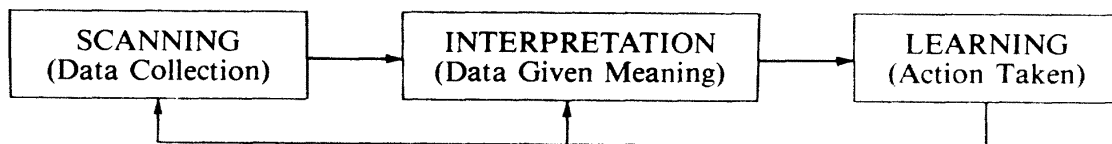


Figure 8 Relationship between Scanning, Interpretation and Learning²⁵⁶

Scanning is about being open to the information emanating from the environment, and being able to receive information or cues. Information that is collected is then interpreted, that is, meaning is assigned to it, based on the shared mental model of the organisation. Learning happens when action is taken by the organisation on the basis of the meaning generated²⁵⁷. The ability to scan, and identify information or news from the environment and to

²⁵⁶ Daft R and Weick K, (1984) Toward a Model of Organisations as Interpretation Systems Pg 286

²⁵⁷ Daft R and Weick K, (1984) Toward a Model of Organisations as Interpretation Systems Pg 286

disseminate it is crucial for learning²⁵⁸. Similar learning principles have been identified by Morgan²⁵⁹ which includes:

- Scanning the environment
- Cross reference data against operating norms
- Identify deviations from norms
- Correct in response to deviations

Below, we evaluate these activities in respect of their similarities and overlaps with organisational learning. ERM is regulated and governed by codes of practice to which organisations subscribe. Listed companies also have to comply with governance requirements of stock exchanges which requirements include risk management. While organisational learning is not similarly regulated, the regulation of ERM may be useful if it can facilitate organisational learning.

4.2.1 ERM and Organisational Culture

There does not appear to have been much investigation into how individuals and organisations behave in relation to risk²⁶⁰. How the individual perceives the reality around him is important, as we have seen from Chapter 3 above. How individuals perceive risk, notwithstanding that these are a “manufactured” reality, is also important from the perspective of risk management. In particular, it can affect the way the individual perceives the organisation he works for, what are perceived as risks and which choices are made about how to manage the risks. It can also determine priorities given to particular risks and is a filter through which we decide what is happening in the environment. It is a significant component, and as such we will look at the organisational culture from the perspective of ERM activities which can impact thereon, such as context and objective setting, risk assessment and risk reporting. .

4.2.1.1 A Context for Learning

Enterprise risk management activity is grounded within an organisation, and must take into account the internal and external organisational context. Accordingly, the risk management practitioners must have a deep sense of the organisation and of its background in order to conduct the risk activity. With regard to the context and objective setting component of the

²⁵⁸ Weick, (1995) Sense Making in Organisations pg 97

²⁵⁹ Morgan, G Images of Organisation pg 86

²⁶⁰ Valsamakis AC et al, (2005), *Risk Management Managing Enterprise Risks*, Pg 40

ERM process, the three standards seem to be similar, in respect of what this component deals with. The King (III) Report also acknowledges the role of culture in the risk management processes, in that it provides that internal audit in the organisation must assure the Board regarding how a risk management culture is being inculcated²⁶¹.

Context setting requires the consideration of and the documenting of the organisations objectives and the context within which it operates. This is crucial to the process of risk management because it reflects the potential risks or opportunities which could impact on the organisations objectives, whether positively or negatively. ERM can thus be a predictor of the potential events which may compromise or affect the organisations objectives.

By discussing and documenting the context, the organisation is making explicit the conditions under which the organisation operates, both internal and external, taking into account strategic and operational factor, and indeed all factors pertinent to the risk management process. While calling up all the possible factors making up the context, the people involved in the context setting exercise are effectively surfacing what they know about the organisation, the external environment in which it operates, its belief system, values, norms and all aspects which allow them to make sense of the organisational reality and sharing this perception with their colleagues. They are voicing their subjective views about these aspects, and accordingly sharing their own mental models about the organisational environment.

The shared values, beliefs, and norms help bind people together, drive agreement between them and allows them to “see” the same reality²⁶², or manufactured uncertainty from the perspective of risk management. As we know, culture guides behaviour, and signifies to people what behaviours and outcomes are expected and appropriate within the context of the organisation, and what cause/effect relations exist between the activities and the outcomes²⁶³.

Shared values lay a basis for the individual to be able to make creative guesses at the potential effects of the actions of the organisation, providing what van Loon refers to as the information basis for the individual to imagine the future state or effects of organisational action²⁶⁴. Thus by describing the context, and documenting it, the organisation is laying its cultural bias bare, and allowing the individual to make predictions about the consequences of

²⁶¹ King Report on Governance For South Africa 2009, Pg 85

²⁶² Weick, K (1995) Sensemaking in Organisations Pg 113

²⁶³ Weick, K (1995) Sensemaking in Organisations Pg 113

²⁶⁴ Van Loon J, (2005) Risk and Knowledge Pg 61-62.

organisational activity. But can such a broadly described cultural statement be adequate for an entire organisation? Can the meaning derived from a broadly described culture effectively derive meaning for a disparate group of people, from different parts of the organisation, with different backgrounds, experiences and thus different perspectives and views of the world?

The ERM discipline brings together individuals from different parts of the organisation with the mandate to understand the organisational context, determine the risks facing the organisation, and to plot and advise management of the organisational action needed to prevent the effects of the envisaged risk or to promote the effects of the envisaged opportunity. The creation of a team of people with different backgrounds and experiences and histories can limit the learning which may take place. Finance managers, for instance will share certain perspectives, language and histories, which may be different from other members of the organisation, such as human resource practitioners, supply chain managers, salespersons etc. As a result of different frames of reference, vocabulary, points of view and assumptions, subcultures develop within the organisation which can resist learning between the subcultures²⁶⁵.

Groups or organisations with the same backgrounds will find it easier to learn within the team as they enjoy the same systems of meaning, cultures or ideology since “meanings tend to stabilise locally”²⁶⁶. Cross functional risk management teams may accordingly be difficult to manage from a learning or sense making perspective as the meanings and emotional belief systems are different. As a result the way the environment and the risks are perceived may be different for members of the different groups, and these cultural and sub cultural attributes will act as a framework indicating how people should to behave²⁶⁷. A shared risk culture or view is crucial to the effective implementation of risk management as described by the standards²⁶⁸.

Culture or ideology is a form of premise control, which influences the way people act²⁶⁹. By discussing and collaborating on the context of the organisation, managers are generating a shared worldview, which ought to facilitate learning across and within the group. In this way the risk organisation is creating a cognitive or causal map of the entire organisation, which

²⁶⁵ Van Winkelen, C & Mckenzie, J (2007) Integrating Individual and Organisational Learning Initiatives Pg 534

²⁶⁶ Weick, K (1995) Sensemaking in Organisations Pg 113

²⁶⁷ O’ Keefe, T (2002), Organisational Learning: A New Perspective, Pg 130

²⁶⁸ Institute of Directors in Southern Africa, King Report on Governance For South Africa 2009, Pg 73, 85

²⁶⁹ Weick, K (1995) Sensemaking in Organisations Pg 113

they will then use as a frame for meaningful noticing. By documenting their shared view they can refer to it when needed, to disseminate more widely and even to further embed the shared view. It thus creates a historical artefact, which becomes part of the organisational memory, and against which the organisation can reference itself, to determine performance (with regard to risk), and to evaluate whether the organisational context has changed over time. Notwithstanding the disparate backgrounds, by sharing a common frame of reference, risk managers will promote learning.

People sharing the premises underpinned by culture will tend to act in a similar fashion. In some instances of course, behavioural uniformity may not be acceptable, and could impact negatively on the organisation. During objective setting, the group generates a shared understanding of the organisation's context. How we perceive risk is not cast in stone because we are able to rewrite the script of our reality, including our perceptions of risk and our attitudes thereto. Thus where the individual's attitude or perception of risk is influenced by group attitudes, this can influence the overall outcome of decisions regarding risk and, particularly in cases where experts in a particular field are swayed by group attitudes, this could negatively impact the organisation²⁷⁰. Thus in risk management activities where the risk profile is being determined the potential is great that the group perception or culture may overwrite the minority perceptions, which perceptions may be correct in the long run.

However, at this stage, we are still dealing with a relatively small group of individuals drawn from different functional areas of components of the organisation. People involved in risk management across the enterprise may vary widely in practice in terms of relative seniority or technical qualification. This will determine to what extent people have the confidence to be able to participate at the required level to make risk management meaningful. This sharing of meaning or learning environment will still only be within a smaller group engaged in the activity of risk management.

ERM can also foster tradition building. Objective setting and documenting the context can also be seen as a component of building tradition in the organisation. Through understanding and documenting the cause and effect relationships, that is the past actions of the organisation and the effects and consequences thereof, the organisation can preserve these traditions and by so doing increase the capability of the subsequent generations by providing them with

²⁷⁰ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks, Pg 40

resources of sense making and learning from the lessons of previous generations²⁷¹. The objective setting, context documenting process, as well as the risk assessment process starts a process of documenting traditions which comes full circle when the outcomes of the actions and decisions are evaluated and known.

Theories of action, mental models and culture are important components of individual and organisational learning, and which facilitate the way the individual and organisation sees his world. Certain changes, errors or stimuli from the environment are noticed, whilst others are ignored, which drives the organisation's understanding and development of the solution or response. However, the tradition may also generate too much desire for stability, as it provides an anchor to the past. As a result, organisations which are too stable and stuck in their routinised ways either do not perceive the new threat, or cannot make sense of it, or they recognise it but respond by trying to further entrench their old ways of working²⁷². The ability to change these theories and mental models are the processes of learning which appear to be exhibited in the ERM process, particularly those related to the component determining context and object setting.

4.2.2 ERM as Environmental Scanning

While risk management as a whole is an ongoing process, it is the risk assessment component which is the business end of risk management. Business units during their continual interaction with the environment will scan and receive information and interpret these in relation to existing risk management profiles and the risks which have been identified. They will then act in accordance with the risk response/treatment actions as planned and agreed through the risk management process and report the actions to management. If the meaning attributed to the information is incongruent with the norms or expected event, a new sensemaking/learning event ensues. Any changes in the environment, including changes to risks, are reported to management and executive management²⁷³.

Clearly enterprise risk management encourages a culture of looking out for and noticing change and amending behaviour in response to changes in the environment. Insofar as learning is concerned the identification of risks can impact on the time taken to act or to take decisions. A risk can be regarded as an expected loss, although the event giving rise to it may

²⁷¹ Weick, K (1995) Sensemaking in Organisations Pg 126

²⁷² Tushman, ML, et al, (1986) Convergence and Upheaval: Managing the Unsteady Pace of Organisational Evolution Pg 534

²⁷³ Institute of Directors in Southern Africa, King Report on Governance For South Africa 2009, Pg 77

be uncertain²⁷⁴. This uncertainty can delay decision making until either additional information is received or a more plausible interpretation is made available, resolving the uncertainties or ambiguities. When risks have been identified and risk management plans have been developed and communicated, management is better prepared to deal with uncertainty and ambiguity. In such situations, when the hitherto uncertain cues to this expected event are noticed, meaning is then made, and thus any agitation and uncertainty being felt is resolved quickly, freeing up attention and information processing resources²⁷⁵. Weick provides a cautionary to this boon, in that expectations can also act as a filter for what we notice and therefore reduce accuracy. In this case our perception may tend towards what we expect, and we see what we expect to see²⁷⁶. Managers may simply overlook cues as they focus on meeting compliance and administration obligations, without reflecting deeply enough on the implications of the incoming information, and they will lose out on key opportunities to learn. Expectations can, fortunately be corrected²⁷⁷.

Risk identification starts off the risk assessment process²⁷⁸. This is common sense as without first identifying the risk, one cannot analyse and measure it nor can one determine how to deal with it. Furthermore, ongoing monitoring of the risk environment is about ongoing risk identification to identify new risk and to identify cues relating to evidence of risks realising their potential. Risk identification should enjoy a significant focus within management activity. However, notwithstanding its importance, in the past all the attention has been grabbed by the aspects such as risk financing and insurance, which is however the component which shows in the bottom line of the business. Compliance, controls and monitoring are grabbing the attention of managers with little time spent on identifying or investigating new risks²⁷⁹. Managers are spending more and more time on just meeting compliance obligations, and that they are not spending time reflecting on the implications and the meaning of the events that they see happening around them. Managers are allocating too little of their time to horizon scanning to identify risk and to spot opportunities, as well as to further investigate them, and this undermines the learning process significantly. Too much time and resources

²⁷⁴ Majone, Giandomenic (2010) Strategic Issues in Risk Regulation and Risk Management pg 102

²⁷⁵ Weick, K (1995) SenseMaking in Organisations pg 146

²⁷⁶ Weick, K (1995) SenseMaking in Organisations pg 146

²⁷⁷ Majone, Giandomenic (2010) Strategic Issues in Risk Regulation and Risk Management pg 105; also see Weick, K (1995) SenseMaking in Organisations pg 147

²⁷⁸ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks, Pg 96

²⁷⁹ Davis, P 2009 Beyond Box Ticking The Economist Intelligence Unit Pg 18.

are allocated to dealing with compliance which is a lost opportunity for learning²⁸⁰. They will fail to notice important cues as they will become increasingly immune to stimuli from the environment, thus losing learning opportunity.

While many techniques and approaches are available, the overall approach is one of identifying risks at a macro level, and then refining the focus on the major classes to determine the micro risks²⁸¹. While there are many risks impacting on as many organisations and organisational objectives, it is an advantage to have a variety of approaches and methods available to match the variety in the environment, as no one technique will identify all risks effectively, and combinations will have to be considered. Furthermore, in many instances techniques are specific to certain industries, and these can result in significant cross pollination of ideas and methods across industries, which will benefit risk management practice in general.

The IRM standard suggests that the risk identification process should not be driven by external consultants and experts²⁸², as the identification process utilises knowledge and intuition drawn on experience within the organisation. The process of identifying risks is an inherently creative one²⁸³, requiring members to predict possible future events which could impact on the meeting of objectives, drawing on their experience and intuition. Examples techniques include workshops, scenario planning, interviews, safety audits and brainstorming with people who have a good perspective and understanding of the business.

Risk identification is similar in many respects with scanning processes in relation to learning. Scenario planning has been found to be a particularly good way of building collective mental models, as a scenario is essentially an internally consistent or plausible story of how the environment is developing or shaping, collected and collated from diverse cues or bits of signal from the environment²⁸⁴. Choo describes mental models as stored interpretations from the past that people turn to first when they want to interpret new signals from the environment. While this type of planning does not predict the future, they do help to identify the forces which are likely to shape the future changes which will impact the organisation²⁸⁵.

²⁸⁰ Davis, P 2009 Beyond Box Ticking The Economist Intelligence Unit

²⁸¹ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks, Pg 97-98

²⁸² Institute of Risk Management, A Risk Management Standard, Pg 5

²⁸³ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks, Pg 103

²⁸⁴ Choo, CW, (2006) The Knowing Organisation Pg 24

²⁸⁵ Choo, CW, (2006) The Knowing Organisation Pg 25

Since scenarios develop alternate stories of the future, it also generates an acceptance of the possibility of change, and an appreciation that the organisation must constantly re-evaluate assumptions.

Other techniques have also been developed which can use the services and experience of outside experts to conduct site visits and inspections, utilising their experience and expertise of specific industries to great effect²⁸⁶. In risk assessments of complex and highly technical facilities, more technical skills may be required and greater capacity and variety of skills can also benefit the risk management process from the perspective of learning. However, as we have seen, the greater the variety of backgrounds, the greater the potential for disruption through defensive routines and political issues. Another aspect which impacts on the variety and use of highly technical skills is the cost associated therewith. The impact of risk on operations may be high, but the time and cost of implementing a risk management process and the cost of the solution must also be commensurate. However, in the identification of risk, the lead roles are often taken by experts, indeed it has been regarded as the exclusive domain of experts²⁸⁷.

Some parties have been calling for greater detail and definition of terms and concepts in the risk management discipline rather than provide for broader agreement and consensus on aspects such as decision making and value creation than is currently the case²⁸⁸. Some critique is directed towards probability-based approaches when analysing risk, as these frameworks are regarded as being too narrow, and cannot express uncertainty and risk effectively²⁸⁹. The argument is being made for more scientific approaches to risk assessment and suggests that the reliance on probabilistic measures and techniques are not useful in situations of increased uncertainty. It seems that, due to inherent uncertainty, the manager determines an expected outcome which is too subjective, being based on the context, experience and knowledge of the predictor, and which could lead to poor predictions. This approach is especially sought after in the scientific community where risk management finds itself consistently being applied in medical, pharmaceutical industries. Valsamakis et al make a similar point, and attempt to reconsider their definition of risk to reconcile the concepts of

²⁸⁶ Valsamakis AC et al, (2005), *Risk Management Managing Enterprise Risks*, Pg 103

²⁸⁷ Van Loon J, (2005) *Risk and Knowledge* Pg 61.

²⁸⁸ Aven T (2012) *Foundational Issues in Risk Assessment and Risk Management* pg 1649

²⁸⁹ Aven T (2012) *Foundational Issues in Risk Assessment and Risk Management* pg 1650

risk and uncertainty²⁹⁰. This debate seems to represent the situation of a discipline in the throes of discovery, in particular about the use of probability approaches, but also about broader issues such as the blurring of distinctions such as identification of risk and its description or measure²⁹¹. It has been suggested that the new framework for risk be structured on the basis that distinguishes between risk and risk descriptions and measures, with risk identifying the consequences of action/activity (which is accompanied by uncertainty due to unknown consequences), and risk descriptions/measures depicting a set of consequences and how they are measured.

As mentioned above, the process of risk identification requires an understanding and detailed documenting of the relations between causes and effects, between activities and the consequences. These cognitive and causal maps are of use in the risk identification and analysis stage of the ERM process, as it creates a shared frame through which organisational members can notice and identify cues or stimuli from the environment²⁹². These maps or mental models guide the behaviour of members of the organisation and the more uniform the mental model the more consistent will be their behaviour as a group. The generation of shared perspectives or causal and cognitive maps for the organisation is also described as a theory of action²⁹³, which provides the organisation with an underlying framework specifying the organisations place in the environment, which information coming in is relevant, and how to respond. These theories of action are generated during the context and objective setting stage. As the risk management process is continuous, and cyclical, the organisation will always have a chance to review and refine its theory of action. Thus these theories of action facilitate the way or what stimuli are noticed by the organisation and what responses are considered or chosen in relation to these stimuli.

4.2.3 Risk Analysis as Interpretation

Once the risks have been identified, the relative impact on the organisation must be gauged. There are a number of methods and techniques which have been developed by the insurance industry to value risks on the basis of impact, probability and frequency. This allows the risk to be known from an impact perspective and the effect it will have against the objectives of

²⁹⁰ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks, Pg 27

²⁹¹ Aven T (2012) Foundational Issues in Risk Assessment and Risk Management pg 1652

²⁹² Weick, K (1995) Sensemaking in Organisations Pg 121

²⁹³ Weick, K (1995) Sensemaking in Organisations Pg 121

the organisation and, in particular to be able to express it in numerical or financial terms²⁹⁴. Identifying the risk is not sufficient, but a further analysis is required to render an appreciation of the risk and to make it meaningful to the organisation. Risk analysis provides meaning to the risks identified²⁹⁵. In van Loon's triad to depict risk in the risk society, he identifies visualisation, signification and valorization.

Risk analysis adds understanding and appreciation of the parameters of the identified risk and accords with the signification component. Risk evaluation appears to accord with the concept of valorization, encapsulating a value that is attributed to the risk, more in the sense of a shared value rather than as an expression of economy alone. He argues that, at a societal level, the depiction of risks solely from the perspective of economic and financial is further evidence of the inhumanity of the risk society and the dehumanisation of the individual in it. His point that we should see risk as more than its impact in financial and economic terms is well made in the face of risk which seems to defy adequate evaluation and depiction in economic terms, such as HIV and Aids, nuclear disasters, and other incalculable risks.

The learning processes of scanning and interpretation benefit from effective risk analysis and risk evaluation processes. Risk analysis processes and techniques identify the risks and uncertainties facing the organisation, leveraging the experience and knowledge of people in the organisation who make the determination based on their past experiences and knowledge of the environment. By plotting the impact and probability of occurrence, ERM practitioners develop a rating matrix and structure to measure risk against the tolerances set by the organisation and which includes a description of the risk, the impact it will have, the probability of occurrence, sources, consequences and causes of the risk, what controls and measures have been agreed upon and other relevant aspects related to the business of the organisation. By sharing and communicating the risks and risk ratings to all business units, managers are being prepared to keep a lookout for the events and risks described or predicted to ensure that the organisation is not caught unawares by the risk event. By so preparing the organisation, people will be better able to deal with cues coming from the environment where those cues tend towards the risks identified. Otherwise they may suffer some uncertainty around what is happening, and accordingly delay decisions or fail to take decisions at all due to such uncertainty. Furthermore, risk mitigation plans developed to deal with risks provide guidance as to how management should act in the face of these risks. These agreed

²⁹⁴ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks, Pg 111

²⁹⁵ Van Loon J, (2005) Risk and Knowledge Pg 60

procedures and actions generates action in a particularly direction and reduces anxiety and uncertainty to improve decision making.

4.2.4 ERM and the ability to effect change

In Chapter 3 we discussed convergence (incremental adaptations) which is geared to stabilising the organisation. Most organisations are familiar with this type of change. Upheaval is a dramatic change to the organisation, and is highly disruptive.

As previously discussed, in order for the learning to exhibit characteristics of double loop or second order learning, it needs to be able to identify the changes in the environment, compare it against operating norms and change those norms where appropriate²⁹⁶. ERM integrates all aspects and all risks facing the organisation, whether strategic, operational or policies and norms. In principle, therefore organisations with effective ERM processes should also be able to effect changes characteristic of double loop learning. However, unless the risk relating to the operating norm is identified as part of the risk profile, this may not show up in the scanning results of the organisation because we see only what is within our belief system.

West²⁹⁷ suggests that double loop learning happens more comfortably in processes relating to corporate strategy and change management, while Morgan²⁹⁸ holds that the double loop type learning at operational levels are reflected in Total Quality Movement initiatives. While change can happen incrementally, by convergence or dramatically through upheaval, both of these can happen at all levels of an organisation²⁹⁹. Convergence, whether through fine tuning of policies, and procedures, or through adaptation in response to changes in the environment, does not change the established strategies, structures, and processes³⁰⁰. These are incremental adaptations designed to maintain the existing objectives rather than amend them. Upheaval or frame breaking changes are painful periods of change, which are more abrupt, creating durable but significant changes to processes, strategies, management (people) and

²⁹⁶Inge Hovland, 2003 Knowledge Management and Organisational Learning: An International Development Perspective, pg 17 , Also see Tovstiga G, Odenthal S and Goerner S (2004) Sensemaking and Learning in Complex Organisations: The String Quartet Revisited Pg 3

²⁹⁷ West P Organisational Learning in the Automotive Sector, Pg 52

²⁹⁸ Morgan, G 1984) Images of Organisation pg 94

²⁹⁹ Tushman, ML, et al, Convergence and Upheaval: Managing the Unsteady Pace of Organisational Evolution, Pg 532

³⁰⁰ Tushman, ML, et al, Convergence and Upheaval: Managing the Unsteady Pace of Organisational Evolution, Pg 534

structure³⁰¹. In this context, effectively operating ERM activities can alert management to the need for change, plot the steps to avert the crisis, identify opportunities and generate consensus at all levels. Furthermore, risk mitigation and management plans for dealing with risks will prepare managers, undermining autonomic responses and improving response time to times of crisis, much in the same way as business continuity and emergency services prepare eg emergency drills.

Monitoring processes of ERM focuses internally in terms of incremental improvements, and externally, focussing on environmental changes and impacts. Identifying such changes and impacts are the result of experience and preparation during the risk management processes. Risk management is concerned with the future outcomes of organisational behaviour and accordingly the practice of risk management is about anticipating potential outcomes, rather than considering actual outcomes. However, the actual outcomes are important for the practice of risk management activity because this is a reflection of the past experience of the organisation, and these outcomes must be measured and recorded³⁰². It is during the activity when the managers are contemplating and documenting the context and identifying risk that the past outcomes become important. These are important artefacts of the past which inform the current managers of the historical trends, of what has happened to the organisation previously, how the events impacted on the organisations people, processes and strategic objectives, which information can in turn be used to make decisions relating to the future outcomes³⁰³.

Monitoring and reporting is about scanning the environment constantly and reporting to relevant managers about what is happening in the environment as the organisation wants to see whether the risks identified and evaluated will come to pass or whether other risks will make themselves known. This is similar to sensemaking or learning processes. The information or news received by the organisation causes it to think about (analyse, understand) the information, and to account for how it came about, that is, to write a history or a story of the events which led up to it. It is accordingly a sensemaking event³⁰⁴. But often, as has been mentioned before, the organisation does not notice or appreciate the news being received. Failure to notice the cues can be the result of the inattention, such as when

³⁰¹ Tushman, ML, et al, *Convergence and Upheaval: Managing the Unsteady Pace of Organisational Evolution*, Pg 532

³⁰² Valsamakis AC et al, (2005), *Risk Management Managing Enterprise Risks*, Pg 25

³⁰³ Valsamakis AC et al, (2005), *Risk Management Managing Enterprise Risks*, Pg 25

³⁰⁴ Weick, K (1995) *SenseMaking in Organisations* Pg 96

managers focus more on the compliance aspects without looking at the events themselves to try to understand their implications. It could also point to poor communication mechanisms, and differences in world views or subcultures between different hierarchical layers in the organisation³⁰⁵. Defensive routines and fear to deliver bad news regarding risks may undermine the communications of such risks on the basis that there is insufficient evidence to support the view, or that it is a long shot. It would be difficult to decide what information is filtered out on purpose and what is left out by virtue of the different culture or paradigm? Ultimately communication, two way and regular, comprehensive and relevant is crucial to manage decision making in such circumstances. Multiple communication channels may also assist in making for more effective communication, but maybe the promoting a culture of publishing and focussing on the long shot idea or notion, both in the form of threat, but also in the form of opportunity. Both corporate governance and risk management frameworks attempt to encourage organisations to build internal reporting and communication capability to ensure that the message gets through to decision makers³⁰⁶. In the end, monitoring and scanning processes can facilitate the learning processes, but cultural dynamics and compliance driven outlooks can undermine such learning.

ERM promotes second order learning and change because it promotes the use of interactive and participatory processes as they are rich and animate organisations and change mental models and behaviours. Such visions can change mental models and shared images which will lead to changed behaviours. Changing mental models are easier when solutions and changes have emotional appeal. Multicultural teams, and established processes using scanning, interpretation and learning which are trusted are also useful during these processes. Management activities which are rich in mechanisms of reflection, such as scenario planning, strategic planning processes and risk management processes, may be useful in this regard. They place the practitioners maybe not at the very centre of the unfolding events, but certainly within the flow, since they focus on future states against the background of the past processes and structures. In this way they are looking for impending changes and fractures.

In order to participate and effectively manage disruptive change and upheaval, it is suggested that organisations develop the ability to extend their peripheral vision, to be able to scan and notice niche and fringe markets, products and opportunities. They also need to be able to

³⁰⁵ Barnes, PH 2005 Can Organisational Failures be prevented before They Occur? (A discussion about Corporate Governance and Risk Management) Pg 16

³⁰⁶ Barnes, PH 2005 Can Organisational Failures be prevented before They Occur? (A discussion about Corporate Governance and Risk Management) Pg 17

improve their noticing ability, to ensure they do not ignore important changes happening in the environment, and to develop different mechanisms for projecting future states. These include various management planning and reporting mechanisms, including risk management and scenario planning, where the media and interactions are rich face to face interactions and where the focus is on sharing mental models and developing shared meanings.

4.2.5 Organisational structure

Organisational learning, and indeed risk management processes are dependent on the manner in which it is configured or structured in the organisation. The implementation of the risk management programme of activities cannot really be regulated by the standards on risk management as it is a function of the strategy and policy of the organisation, and will be dependent on the nature of the organisation and its strategy³⁰⁷. Various standards have for example identified issues that ought to be dealt with in risk management strategy and policy frameworks, and the roles of the different stakeholder, including the board and the individual business units³⁰⁸.

The King Report for Governance in South Africa (King III) identifies that risk management is a key component of management³⁰⁹ and while learning is occupying a lot of managerial thinking, it does not yet have significant regulatory support. The risk management standards and frameworks such as the King Report have identified learning as an output of ERM, but there is little said about how this is to be achieved. It also allocated responsibility for management of risk to the board, thus placing it very high on the corporate agenda.

From the perspective of structure, it is important to create a structure which facilitates learning. As we discussed in Chapter 3, hierarchical and traditional organisational structures will act as a barrier to learning³¹⁰, which can include defensive routines due to the performance and punishment mechanisms established by the organisation. Groups and sub groups with similar experience, cultures and language may create silo effects, which may limit the operation of organisational learning. This may be exacerbated in that certain activities such as risk assessment and risk treatment often require input and assistance from experts and qualified professionals³¹¹.

³⁰⁷ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks, Pg 87

³⁰⁸ Institute of Directors in Southern Africa, King Report on Governance For South Africa 2009;

³⁰⁹ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks, Pg 75

³¹⁰ Morgan G, (1986) Images of Organisation Pg 89

³¹¹ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks, Pg 103

In response to the governance requirements of the King III report and other standards, many organisations have formal risk management structures in the organisation to administer and manage the enterprise risk management process, and business units are responsible for the day to day management of risk³¹². After the risks have been identified, assessed, responses developed, and communicated to all relevant stakeholders, including the relevant business units/risk owners, the monitoring in relation to these risks commence. Whether learning has occurred will depend on whether any action/change in behaviour has resulted from the process.

As it considers risks related to activity at all levels of the organisation, it requires a structure and process to identify (scan/view), to understand (interpret) and to learn (act/change behaviour) about the risks facing it, and to manage it. Management and administration of risks happen at the business unit level, and management includes the identification, analysis and understand the risk environment, scanning the environment identifying new risks and changes to the environment, and monitor and report the changes in the environment to management. Thus business units, conducting the business of the organisation have constant and relevant contact with the environment in which it operates, and has a bird's eye view of its environment and can thus scan the environment. These mental maps generated during the risk identification and analysis activities are interpretations which individuals turn to first as they try to interpret signals coming in from the environment³¹³. Having an understanding and knowledge of the risks facing the organisation, it also has the tools with which to interpret any information coming in relating to changes in the environment and which may evidence the risks coming to pass. This information is passed on to management for appropriate decision making, who, scan the reports and data, and interpret them, and act through making decisions which commit company resources or effect some other change in the organisation.

4.2.6 ERM - dealing with uncertainty

Uncertainty and ambiguity can be detrimental to the way we interpret cues and information and can result in delayed or incorrect decisions. It can affect the interpretation and action processes of learning. In practical situations where managers are faced with having to decide on a course of action, they are often faced with circumstances of uncertainty. This uncertainty relating to future events, may be attributed to a number of factors including incomplete

³¹² Institute of Risk Management (2002), A Risk Management Standard Pg 2

³¹³ Choo, CW, (2006) The Knowing Organisation Pg 24

knowledge, information or understanding regarding the decision as well as of the outcome or consequences thereof³¹⁴. Uncertainty is thus inter related with risk and gives rise to it³¹⁵.

As mentioned in Chapter 3, uncertainty and ambiguity can create the shock which results in learning. In essence, the shock disturbs or interrupts the ongoing flow, and creates a moment when the individual will try to make sense of the interruption. In that chapter we discussed uncertainty (which results from ignorance), and ambiguity (which results from confusion from too many interpretations) as shocks which trigger sense making activity. The interruption is a “shock” because it prevents the completion of a planned action, and triggers an effect in the autonomic system³¹⁶. In effect, an unexpected event occurs in place of another, or alternatively the expected event does not appear at all.

There are a variety of definitions of risk, which differ in respect of each other due to the perception that risk is contextual, and therefore the definitions reflect this contextual nature³¹⁷. However, while they do not conform with each other, the definitions do not disagree to a large extent on the basic components of risk and risk management.

One basic component of risk on which there is general agreement is the element of uncertainty which is implied in definitions of risk. The extent of the uncertainty about the event determines the extent of the risk related thereto. This has usually been described on the basis of probabilities³¹⁸. Risk management, from the perspective of managing uncertainty or managing organisational activity in uncertain conditions deals with uncertainty as to whether a particular event will happen, as well as uncertainty as to what consequences will flow from the happening of the event³¹⁹. In order for effective decision making under conditions of uncertainty, managers ought to be able to quantify the risk, and the mathematical and statistical modelling techniques and tools help with this. However, the world is not perceived the same way by all people, and the levels of uncertainty is influenced and affected by the psychological aspects as well³²⁰.

³¹⁴ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks, Pg 30

³¹⁵ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks, Pg 31. However, they seem, in relation to uncertainty and risk, to prefer to identify risk as an absence of certainty, rather than presence of uncertainty.

³¹⁶ Weick, K (1995) Sensemaking in Organisations Pg 101

³¹⁷ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks, Pg 26

³¹⁸ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks, Pg 26

³¹⁹ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks, Pg 28

³²⁰ Valsamakis AC et al, (2005), Risk Management Managing Enterprise Risks, Pg 29

Learning is a form of sensemaking, which illuminates after the fact how the decision was made, i.e. it is retrospective³²¹. Surprise is an occasion which leads to sensemaking because one then questions what is happening and why. Sensemaking is triggered by the desire to reduce uncertainty³²² (and risk). Uncertainty in relation to decision making is a depiction of the changes in the level of uncertainty over the course of decision making cycle. In effect, the organisation goes through cycles of action to try to reduce the level of uncertainty or ignorance attendant on the decision at hand³²³. Thus at every stage of the decision cycle, and this would similarly be the case with regard to decisions about risk management activities, the organisation will ask itself of the potential consequences of its potential actions.

In view of either the lack of sufficient information or too many interpretations the uncertainty or ignorance will impact on decision making. Any information which the organisation is able to glean from the environment reduces that uncertainty incrementally, until it reaches a tolerable level of uncertainty, where it is reasonably certain of the future, and of the consequences of its actions. Indeed, at this stage of tolerable uncertainty, the organisation ought to be able to take decisions and risks in furtherance of its objectives. Risk is after all the uncertainty inherent in organisations in meeting its objectives, and the less the organisation is able to resolve the uncertainties of the future and of consequences of its actions, the more it has to make decisions which are characterised by risk³²⁴. This shock and anxiety can also be increased the more complex the environment.

Complexity in the environment increases the perceived uncertainty because there are more diverse elements and they interact with each other more frequently and in more diverse ways. We only notice the cues which are within our belief systems, and that which we do not, we ignore³²⁵. The concept requisite variety contends that, faced with complex events, a firm needs to reflect that variety in its belief systems to be able to see/notice the cues and thus make sense of the events. Risk management is also about tapping into those experiences, cultures in order to predict events, identify the cues and design response patterns, and increases the requisite variety of available experiences and stories, which can help to mirror the complexity of the environment. Risk management processes and risk committees pull

³²¹ Barnes, PH 2005 Can Organisational Failures be prevented before They Occur? (A discussion about Corporate Governance and Risk Management) Pg 15

³²² Weick, K (1995) Sensemaking in Organisations pg 97

³²³ Weick, K (1995) Sensemaking in Organisations pg 96

³²⁴ Weick, K (1995) Sensemaking in Organisations pg 97

³²⁵ Weick, K (1995) Sensemaking in Organisations Pg 87

together teams from different subcultures, creating micro cultures³²⁶ and building requisite variety and multiple voices and stories to make sense of the environmental variety.

Ambiguity creates shock which arises from having too many meanings or interpretations attendant upon the action or event and thus differs from uncertainty. The effect of having multiple meanings which emanate from the event causes confusion. The confused members, being part of the system, also often do not know where to begin to unravel the problem, what questions are relevant and what, if any, the problem is³²⁷. Ambiguity and uncertainty are treated differently from a sense making perspective because the ways to resolve them are different. In a situation of ignorance (resulting in uncertainty), additional information on the problem is needed to resolve the uncertainty. However in respect of confusion (ambiguity), more information may not resolve the confusion and may well exacerbate it. Confusion stems from the variety of interpretations which are not matched by the variety of beliefs/understanding in the organisation. The ambiguity needs to be clarified and discussed, and the means to do this are through mechanisms which are characterised by how rich they are in constructing cues³²⁸. Such mechanisms include face to face interactions, workshops where the confusion is debated, discussed and clarified through the evaluation of new cues by the group. ERM processes bring together varieties of diverse perspectives and skills within the organisation, increasing the variety of perspectives and thus increasing the opportunities to resolve the confusion. It also does so through interaction driven face to face and interactive discussion fora. The choice of a mechanism which does not provide sufficient cues will not help, but may prolong the confusion and exacerbate the interruption.

The confusion triggers autonomic arousal which impacts on the sense making ability of the individual. The interruption triggers autonomic arousal, and the sooner the uncertainty or ambiguity is resolved, the better it is for learning or sensemaking. Autonomic responses impacts on the ability to process complex ideas and information coming in from the environment, and thus reduces the ability to notice and interpret cues, thus reducing sensemaking³²⁹. The response will be more dramatic the more expected the event is or established the process is, and can increase the longer the disruption lasts. Accordingly, the sooner the organisation invests its energy and time into resolving the disruption, that is,

³²⁶ Schein, E (2010) Organisational Culture and Leadership Pg 2

³²⁷ Weick, K (1995) Sensemaking in Organisations Pg 98

³²⁸ Weick K, (1995) SenseMaking in Organisations Pg 99.

³²⁹ Weick, K (1995) SenseMaking in Organisations Pg 101

enactment, it will generate additional cues to orient itself. Continued enactment will result in incremental orientations. Decision-making is even more difficult during a crisis situation because the time pressure, coupled with the pressure to get the solution rights and the uncertainty, being either ignorance or confusion (ambiguity)³³⁰.

Risk Management processes, especially those related to scanning the environment and providing feedback to organisational risk committees can facilitate the process of sensemaking and learning in contexts of uncertainty and ambiguity. Risk committees ordinarily are made up of multi-disciplinary teams from all sectors of the organisation. In instances of confusion and ignorance, the risk organisation may benefit from the multidisciplinary nature of the team, in particular, to determine the nature of the problem statement and the nature of the solution (i.e. does it require more information or more clarification). In such cases, the increased variety of the skills and capacities within the team can reduce the anxiety and agitation due to the confusion and allow the organisation to act.

Furthermore, the nature of risk management processes is to accept and make decisions in situations of relative uncertainty. As such it creates a culture which acknowledges uncertainty and risk and requires people to continue to act, albeit in accordance with a pre approved plan. However, the plan is rewritable in that, where circumstances arise which are unexpected, this will call for further acts of sensemaking and learning. Additionally, the risk mitigation plans and management actions developed during ERM can prepare managers. Premeditated and planned responses can help in the situations of anxiety or uncertainty in that it will animate the organisation notwithstanding the anxiety, commencing enactment process and will thus allow additional cues to be made available.

4.2.7 Individual and organisational learning

As we discussed in Chapter 3, individual learning affects organisational learning because of the influence the individual exerts over the organisation's shared mental models³³¹. Thus where the organisation creates the space for the individuals learning, and for the collection and creation of shared mental models, it can effectively "participate" in the learning of the individual. The word participate is used here because the collective creates the space, through structuring the space and creating opportunity for the sharing process. The organisation does not become part of the discussion as a separate entity though.

³³⁰ Barnes, PH 2005 Can Organisational Failures be prevented before They Occur? (A discussion about Corporate Governance and Risk Management) Pg 12 - 13

³³¹ Kim, D (1993) The Link between Individual and Organisational Learning, Pg 10

Furthermore, clearly identifiable groups within the organisation can develop a shared identity and develop a shared mental model, and can be viewed as “extended individuals”³³², contributing to the organisation's shared mental model as a collective individual. This group can provide the impetus for learning and innovation across the organisation depending on the structure of the organisation, and the influence it is able to exert on the organisation's strategies, policies and procedures, relationships between units and functions³³³.

Risk management has become a crucial component of management activity, and has been structured to take into account interests of all relevant and important components of the organisation. It impacts on strategy, operations, reporting and other crucial aspects as determined by the organisation. As we have discussed earlier, it can straddle strategic and operational development areas, and ERM outputs such as risk plans and risk management matrices dovetail with crucial management activities such as internal audit and external audit. It represents multi-functional interests and, during the development of the risk profile of the organisation, it creates a shared perception of the organisation's risk reality, the shared model through which they will interpret events which could impact on the organisation's objectives.

³³² Kim D, (1993) The Link between Individual and Organisational Learning, Pg 11

³³³ Kim D (1993) The Link between Individual and Organisational Learning, Pg 13

Tovstiga proposed a framework depicting the relationship which we have adapted to show where ERM activity and processes could facilitate learning. The adapted framework is set out below:

Level	Learning (and Sense-making) Process	Inputs / Outcomes	Erm Activity
Individual	Intuiting <ul style="list-style-type: none"> • Dependent on some form of pattern recognition; • Pattern recognition supports exploitation; • Important also for exploration through new insights 	<ul style="list-style-type: none"> • Experiential Knowledge • Pattern recognition / Images • Metaphors 	<ul style="list-style-type: none"> • Day to day management of risk interaction with environment • Monitoring of risk plans and their effectiveness by managers • Scanning for new risk
(Individual)	Interpreting <ul style="list-style-type: none"> • Explaining through words, actions • Development of cognitive maps • May result in potentially conflicting interpretations 	<ul style="list-style-type: none"> • Language • Cognitive map • Dialogue 	<ul style="list-style-type: none"> • Daily management response to interaction with the environment, including strategic planning • Informal discussion, sharing individual mental models, communicating results of scanning activities etc • Surfacing views in context and objective setting activity
(Collective)	Integrating <ul style="list-style-type: none"> • Developing shared understanding • Taking coordinated action through mutual adjustment • Shared understanding through dialogue, story-telling 	<ul style="list-style-type: none"> • Shared understanding • Mutual adjustments • Interactive systems 	<ul style="list-style-type: none"> • Documenting agreed context and objectives • Identifying and agreeing on risk responses • Agreeing and setting risk response measures • Responding to information from the environment
Collective	Institutionalizing <ul style="list-style-type: none"> • Establishment of routinized actions • Embedding of organizational routines • Embedding of 'unwritten rules of the game' 	<ul style="list-style-type: none"> • Routines • Diagnostic systems • Rules and procedures 	<ul style="list-style-type: none"> • Communication and reporting • Review of risk • Scanning of environment • Reporting • Performance management

Table 3 Adapted organisational learning framework³³⁴.

The above framework suggests that the ERM activities and processes can potentially facilitate both individual and organisational learning. Whether this facilitation happens in practice is beyond the scope of this study, but may make for an interesting and beneficial one nonetheless.

³³⁴ Tovstiga, Odenthal and Goerner Sensemaking and Learning in Complex Organisations: The String Quartet Revisited, Pg 3

4.3 Conclusion

In conclusion, in this chapter we sought to show the manner in which ERM could facilitate learning, both from the perspective of the individual as well for the organisation, because organisations learn when mental models of individuals change and eventually result in changes to the shared mental models. In view of the governing framework for ERM, established through the various standards such as those set by the International Standards Organisation (ISO), Committee for Sponsoring Organisations for the Treadway Commission (COSO), the Institute for Risk management (IRM) and the King Report for Governance in Southern Africa, the processes, activities and structures are geared to facilitate learning.

Risk insofar as it relates to the objectives of the organisation, brings to the fore the inherent uncertainty of the outcomes of organisational (and indeed, individual) action and activity. By doing so, it forces both the individual and the organisation to maintain a mindset which acknowledges the fluidity of the environment and the potential for changing circumstances, a mindset which is always ready for change. The expected event, notwithstanding that it may be negative or positive, is more easily dealt with than one which is unexpected, and the learning and change is faster and less painful. Furthermore, the regular review of the risk management environment, including the risk management processes and procedures, nature of the risks, changes with regard to risks and the constant and regular reporting and communication required between business units and management suggests that the organisation should not only be mentally prepared for change, but must be constantly vigilant about what is happening in its environment. The ability to scan and receive information becomes an important component for such an organisation, as does the ability to process or analyse information and to act upon it.

The ERM standards acknowledge the role of culture and actively promote the development of a shared culture relating to risk. Bearing in mind the crucial role played by culture in the learning process, both for individual and organisational learning, the ERM activities associated with the establishing and setting of an organisational context goes a long way to allowing individuals to surface their individual mental models and indeed provide them with a reason to let it out. While the standards encourage an inclusive process or conducting ERM activities, it is by no means clear whether organisations in practice entertain inclusive processes, or whether they simply impose some manager's or experts view on the rest of the organisation. From the perspective of compliance, risk managers and auditors in many ways go through the motions in order to comply with the requirements of ERM but the true impact

on the individual in terms of how they perceive their environment and risks flowing from organisational activity is not really considered or meaningfully addressed. This is a lost opportunity for organisational learning. Needless to say, the frameworks exist for ERM to play a role in generating the appropriate cultural basis for individual and organisational learning. The describing and documenting of the context, objectives and the risks allows the individuals to have a point of reference, a peg in the ground around which cues congregate. It also creates a tangible expression of the organisational consensus around risk which can be a benchmark to measure the organisational and environmental change with regard to risk. It establishes tradition and history which provides the organisation with a resource for making sense of the world. However, in well established and traditionally structured organisations, tradition and history could result in individuals choosing to protect the status quo rather than change because they see only the risk to the tradition, and not the opportunity to the organisation in the form of new operating norms or business models.

In order to participate and effectively manage disruptive change and upheaval, it is suggested that organisations develop the ability to extend their peripheral vision, to be able to scan and notice niche and fringe markets, products and opportunities. They also need to be able to improve their noticing ability, to ensure they do not ignore important changes happening in the environment, and to develop different mechanisms for projecting future states. These include various management planning and reporting mechanisms, including risk management and scenario planning, where the media and interactions are rich face to face interactions and where the focus is on sharing mental models and developing shared meanings.

Chapter 5

ERM and Organisational Learning: A Synthesis

5.1 Objective of this study

In the context of modern business environments, organisations are increasingly being called upon to be more resilient, more adaptive to changes within its operating environment. In the light of very public organisational failures such as Enron, Lehman Brothers and many others, managers are being asked to manage under very difficult conditions, in that they must build value for shareholders who requires risk taking, but they must also do so while protecting value for shareholders. In a context where risk and uncertainty as to achievement of objectives is an inevitable part of operating, this seems contradictory. Corporate failures have resulted in increased regulation to ensure that managers protect shareholder value. As a result ERM standards and regulatory frameworks have been developed which focus on protection of shareholder value. Nevertheless, organisations are being called upon to be respond to changes within the environment much faster and effectively than they did before. They are being requested to learn and adapt to environmental stimuli.

Organisational learning has long been a subject of academic discourse and management interest, with promise to increase organisational resilience and adaptiveness. There have been studies done about the distinctions between the concept of organisational learning and leaning organisations, which suggest that the concept of a learning organisation can be referred to as the structure, whilst organisational learning can be referred to as the process by which learning happens in organisations. Learning organisations are self regulatory and highly responsive to environmental change, and as such are a standard to which other organisations must aspire in such turbulent social and economic times. Organisational learning depicts the processes and provides some insight into the attributes would-be learning organisations must possess. Thus the two concepts are intertwined. Learning requires ability:

- i. To constantly and regularly scan the environment effectively looking for incongruence
- ii. To effectively interpret what is happening,

- iii. To act effectively, and timeously by making decisions or implementing actions which change organisational behaviours.

Our research question relates to whether Enterprise Risk Management (ERM) could be used as a management tool to facilitate learning in organisations. The aim of this thesis was to evaluate enterprise risk management as to its effectiveness as a means of enhancing organisational learning. ERM is increasingly regulated due to the public failures of organisations and is accordingly of great interest to managers, regulators and stakeholders. There has also been standardisation of terminology and ERM practices which has enhanced implementation success. There is also significant commonality between the issues which affect ERM and organisational learning, including issues such as organisational culture, issues of uncertainty and ambiguity, and the dynamics of organisational change.

In the discussion of risk management in Chapter 2, we considered the historical development of the discipline as well as the maturing thereof in the form of the development of standards of practice (such as the ISO 31000:2009 Risk Management – Principles and Guidelines published by the International Standards Organisation) and frameworks such as the King Report on Governance in South Africa, published by the Institute of Directors for Southern Africa. These are not the only standards available, but they do provide a generally accepted perspective of ERM principles. Risk management has been used effectively in the financial services industries, especially the insurance industry for many years. In the face of increasing change and turbulence in the economic and social environment within which organisations operate, the need to protect and maintain stakeholder value from unexpected knocks now occupies the top spot among the concerns facing executive management of organisations. One of the reasons for this has been the increased regulation with regard to governance of organisations, such as the King Report on Governance in South Africa.

Traditionally risk management had been practiced in silos and had focussed only on pure risk the effects of which could traditionally be insured for. Furthermore, management of the risk was effected by the unit most affected and information regarding the risk and risk environment was generally not reported to decision makers at senior levels, giving them little line of site to what was happening at these operational levels. Enterprise risk management as a discipline brings in a new perspective to the traditional practice in keeping with the increased governance requirements in numerous jurisdictions. ERM requires risk management to be viewed from an integrated, enterprise-wide perspective so that managers can gain a comprehensive view of all risks. In determining its risk universe or context, the

organisation is encouraged to be as inclusive as possible. While not all the standards and framework are exactly alike, they generally promote similar risk management activities. These activities include objective and context setting, risk assessment (risk identification, analysis and evaluation), risk treatment or decision making, and communication, reporting and monitoring.

5.2 Concepts of Organisational Learning

Organisations themselves do not learn, but people who are part of organisations learn, and through their learning, result in learning in organisations. Learning by individuals does not necessarily result in organisational learning, however. Learning happens when the mental models of individuals are amended through interaction with other stimuli, from the environment or other people. Notwithstanding that learning happens due to the individual, we acknowledge the social aspect of learning, as discussed by a variety of writers including Weick³³⁵, who regard learning as a social process and occurs in social contexts. Learning as a process involves the individual's past history or experience, which helps as a predictor of what consequences will flow from anticipated actions, but also implies that the environment envisaged by the individual is not an objective depiction, but one which is tied to the history and experience of the individual. Along with this, learning also requires the ability of the individual to be able to observe, reflect, conceptualise and experiment. A sine qua non of learning is that some action or change in behaviour which is reasonably permanent must result from the learning activity.

Organisational learning, on the other hand only occurs because individuals learn. However, organisational learning cannot be regarded as the sum total of learning by the individuals in the organisation. Organisational learning is as a result of the generation of a shared meaning/ understanding which has a reality separate from the individual. Indeed, as Weick points out, this could reflect one of the identities of the individual, amongst a plethora of other identities which the individual may have³³⁶. Shared meaning once generated then gets embedded and stored within organisational routines and processes, and becomes the fabric of tradition and history.

³³⁵ Weick, KE. (1995) Sensemaking in Organizations Pg 39

³³⁶ Weick, KE. (1995) Sensemaking in Organizations Pg 20

Following on from learning in individuals, Daft and Weick presented a model for organisational learning comprising of scanning, interpretation and learning. Scanning comprises the ability to be able to monitor the environment in which it operates and to receive data from it. Interpretation is about taking the data and provide it with meaning which is relevant to the organisation. Learning is about taking action, to change behaviour in relation to the environmental stimulus. Tovstiga, Odenthal and Goerner³³⁷ also came up with a framework with which they relate the interactions between individual and organisational aspects in relation to learning.

In terms of their framework, the individual may receive data from the environment, develops some basic understanding or sees some patterns through interpretation of the data. The individual then discusses with his another colleague (probably informally), which not only helps to order his own thoughts and further his understanding (and probably confidence in his assessment), but also results in developing some sharing, albeit in a small circle. By making it more widely known to other colleagues possibly in more formal settings such as meetings, the learning starts getting integrated or woven into the organisational fabric through actions and behavioural changes, as well embedding them into organisational routines, standard operating procedures etc. With increased integration it increases the acceptance and explicitness of the learning and this then gets captured in the routines and systems of the organisation.

What appears to be crucial for organisations is that it is able to get information from the environment. It must be able to scan the environment and receive responses. But what is also important is knowing what information the individual must focus on out of all the information coming at her. Mental models refer to those features of memory which act as the filters and screens through which we see and interpret the world around us. From a learning perspective the mental model of the individual undergoes a change and this change will eventually be reflected through changed organisational mental models. The extent of the impact and change in mental model of the organisation depends on the position and the influence of the individual. Thus a CEO will be able to exert more influence than a manager, for instance, and a risk manager may be able to exert more influence, because of the influence of risk on strategy. The change at an organisational or generic subjective level will require that the mental model of the individual be made explicit and shared.

³³⁷ Tovstiga, et al (2004) Sensemaking and Learning in Complex Organisations: The String Quartet Revisited Pg 3

Enterprise risk management activities such as establishing the context and objective setting is about surfacing and identifying what the parties involved in the risk identification process knows about the organisation, and to share, and document these. They are the basis of generating a shared mental model of the risk of the organisation. This will then assist in the way they perceive the environment, as well as what they notice coming in from the environment. The mental model of the individual is what guides her to what to notice, what information or data is relevant and how to act in response. The more uniform the mental model across the organisation, the more uniform the organisational response will be.

Insofar as generating an interpretation from the data coming in, the ability to make decisions, that is, to act, will be dependent on the understanding the individual and organisation is able to generate. Factors such as ambiguity, uncertainty and requisite variety are pertinent in such a discussion, and we deal with it separately below. Individuals can choose not to make their learning available to their organisations, and thus organisations will fail to benefit from the learning.

The choice is tied to the way the organisation is perceived and whether the individual identifies with the organisation. In this event, the individual then controls the learning from an organisations perspective. This will undoubtedly impact and already has impacted on the power relations in organisations. Those workers regarded as valuable knowledge assets undoubtedly are more sought after in the market place. In order for organisational learning to become a part of organisational processes, organisations will need to take account of the shifting relations and will need to find ways to generate sufficient trust and buy in from individuals to encourage them to share their insights and experience as an input to organisational learning. Organisations must accordingly be structured, and must make available processes and mechanisms by which individuals can be encouraged to make their learning available to the organisation.

Aspects such as organisational culture become important because it is the lens through which individual determines what is and what is not a risk, and determines what actions should be taken. It creates a framework for action by the individual and organisation. Culture also is the foundation on which the individual can make creative guesses as to the effect or consequences of organisational action. It also binds people together under a shared value system, belief system and which perceive the same reality. But culture does not necessarily follow the main organisational boundary.

Complex organisations develop subcultures which can be distinguished on the functional objective, the language and jargon, professional membership and certification required, or position in the organisation. Membership of these subcultures and cultures can also impact negatively on learning when the subcultural boundaries prevent or limit information flow and learning. Change is also impacted through defensive routines because perceptions are not the same due to the different subcultures. So learning will be better achieved in groups with similar cultures, although this kind of learning will probably be geared to maintaining the cultural status quo. In our view, it is important to generate cross functional learning or sensemaking, as this will strengthen organisational coordination and integration across these boundaries. Furthermore, cross functional cooperation and integration will increase requisite variety and allow for resolution of more complex issues and changes. Risk management can provide a basis of cooperation across such boundaries, and it has also been found that notwithstanding non membership of the sub culture, learning and integration is possible if some basis or affinity can be established, such as the collective drive to manage enterprise risk.

As a premise control, culture determines how people will act. The standards of enterprise risk management all acknowledge as do all prominent writers on risk management, the centrality of a pervasive risk culture. Furthermore, the documenting of objectives, contexts and risk registers have an additional function in that it established a body of evidence and tradition, which could later be used as sources of research and learning.

The concept of tacit and explicit knowledge is of relevance in discussions on learning. The distinction between tacit and explicit knowledge is useful for us here in the way we deal with them, from the perspective of sharing and disseminating knowledge. Explicit knowledge can be documented and can be more easily shared, whilst tacit knowledge cannot be documented and sharing must be done more interactively by observation and presentation. Enterprise risk management activities are geared to surface the intuitions and feelings participants engaged in the risk processes. Risk identification activities and techniques are used to tease out people's perception of risk facing the organisation. This is a creative activity where individuals tap into their experiences and insights about the future, and about future consequences of organisational activity, documenting and also surfacing the unspoken uncertainties, risk and opportunities which are resident in the individuals. It provides a forum for the sharing of tacit knowledge, and allows it to spread to other parties in the risk management process and for the documenting of hitherto undocumented knowledge.

In respect of the learning process, we found that ERM processes exhibit great similarity in concept and are impacted by similar features as organisational learning. ERM activities can, in our view facilitate organisational.

5.2.1 Scanning Activities of ERM

A number of ERM activities contribute to the scanning function described in the learning process. Organisations must be equipped to scan and detect changes in the environment, and must have the tools, systems the appropriate outlook or mindset which expects the environment to change, and which is looking for the trends and markers (cues) in order to respond to those changes. Thus it will determine what risks are identified, what cues relating to risks are pulled out of the stream of experience.

Risk identification is a creative process, which involves making guesses at what the potential consequences would be on organisational activity. It calls upon individuals to use their past experience and knowledge to identify trends and possible future realities which may impact on the organisations objectives, and to identify possible future responses to survive or exploit them. Such activity requires trust and confidence in the process and the organisation must create sufficient trust and affinity to encourage participants to truly air their views. In this sense, it lays the foundation for learning, builds trust and relies on the experience of managers in placing their experience and past learning at the disposal of the organisation.

ERM requires continuous monitoring and regular reporting of risk. Once the risks have been identified and evaluated, and risk measures have been determined, business units must continuously monitor the environment to keep a lookout for evidence of the risk coming to pass. Constant reporting and communication must be effected, providing constant feedback to decision makers as to the state of the environment and of the identified risks. The monitoring function is reminiscent of the scanning component in the learning process. It is constant and regular and directs attention to anything which, from experience could be incongruent to the objectives of the organisation.

The processes and techniques used in ERM activities seek to bring together disparate groups from within the organisation to conduct risk management activities. Activities such as objective or context setting activity leads to the identification and documenting of organisational objectives and internal and external contexts. As a scanning function, this is an outward and inward looking activity which focuses attention to what is happening in and around the organisation. It also generates discussion about organisational context and

organisational objectives, which is crucial from the perspective of generating second degree learning. It also animates the risk management organisation, which can be carried through to individual units once the documented context is disseminated and communicated more widely, contributing to shared culture and belief system around which the individuals can rally. Techniques used here can include brainstorming, workshops, interviews and other interactive techniques.

The ongoing monitoring processes too have significant contributions to make to scanning processes of learning. Business unit personnel are required to focus on the environment, to monitor emergent phenomenon which may impact on objectives. This formalises the scanning process and brings it to the foreground of organisational activity, rather than as a background activity of individual learning. Also the maintenance of a focus on risk and ongoing reporting also ensure that managers remain vigilant. They should therefore constantly be monitoring the environment, in order to detect any changes which would exhibit the expected risk event coming to pass.

5.2.2 Interpreting Activities of ERM

The interpretation process requires people to analyse and make sense of the incoming information. A number of issues may impact on the ability to interpret the incoming information effectively. Organisational culture, mental models for instance play a crucial role in framing and play a crucial role and affect the interpretation of cues coming in from the environment. What people notice or see and what sense they make of it is affected by culture. Organisational cultures and mental models are further impacted by political and functional differences and chasms within organisations. Objective and context setting processes in ERM can generate shared mental models and cultures, notwithstanding that the participants are from different functional areas and represent different organisational interests.

Interpretation is also affected by the extent of the error or change being witnessed as a result of the level of anxiety or uncertainty which is generated. Risk analysis and risk evaluation processes seek to understand and make sense of future potential events. It is a creative depiction of a possible future reality, and by doing so it prepares the participants to be able to see the events unfolding and to understand the implications more effectively. That is, it assists in undermining the level of anxiety by reducing the level of uncertainty or ambiguity allowing people to make better sense of what is happening. Risk planning and developing management actions which to be carried out in the event of a risk coming to pass also assists in reducing anxiety, because they are the frames around which people could rally. These

actions are approved and agreed, and therefore are appropriate actions, and enactment of this plan will throw up additional cues which become additional opportunities for learning.

5.2.3 Action Activities of ERM

The processes of risk management are geared to making decisions. As such uncertainty and ambiguity are crucial components of risk management. Insofar as generating understanding from the data coming in, the ability to make decisions, and to act, will be dependent on the understanding the individual and organisation is able to generate. Factors such as ambiguity, uncertainty and requisite variety are pertinent in such a discussion, as they impact on the ability to generate an understanding of the information coming in, that is they cannot make sense of what they are seeing, or they cannot predict the consequences of what their actions will be. Risk management deals with uncertainty about whether an uncertain event will happen and what the uncertainty relating to the consequences of an event happening.

From a learning and sensemaking perspective, we are of the view that ERM processes could provide some assistance in reducing the shock attendant on uncertainty and ambiguity. From an uncertainty perspective, the nature of the shock is one of ignorance which can be resolved by providing more information. The shock in ambiguous situations results from confusion due to too many possible permutations and too little interpretations to understand information coming in.

Risk management acknowledges the place of uncertainty in organisations, and seeks to embed a process and culture for continuing organisational activity in spite of uncertainty. The practice of risk management ought not to make organisations more risk averse, but to conduct activity more aware of the uncertainty surrounding their actions. And by being more aware, they should also be more vigilant about the environmental changes which may occur. Vigilance also requires a regular scanning of the environment, which is required for ongoing organisational learning. The emphasis in ERM around the regular scanning and reporting of environmental changes helps embed a culture acknowledging environmental change and focuses on developing a self regulatory outlook by the organisation. By surfacing the uncertainty, as well as in identifying it, and actions to mitigate and resolve them, the ERM activity will also prepare the organisation to deal more effectively with the uncertainty event (or expected) when it arises.

The action stage of learning is about effecting behavioural changes to the organisation. It is thus relevant to also deal with the concepts of single and double loop learning. Single loop

learning refers to the type of learning where the organisation makes incremental changes to correct errors or discrepancies, whilst maintaining the operating model. Indeed the adjustments and amendments are made to maintain the stability of the operating model and no deep changes are made to the organisation. The type of observation and reflection to ensure self regulation requires an ability to look deeper and be more self critical, allowing the organisation to make adjustments to operating models. While single loop learning is found in the incremental adjustments made in order to keep the organisation stable and improve efficiency of the operations, double loop learning is more difficult.

The activity generally found alongside double loop learning includes risk taking, experimentation, discovery and innovation. However, while the self critical practices of double loop learning are more difficult in operational contexts, it has been used in strategy development processes where the regular review of strategic objectives are commonly practiced.

Enterprise risk management focuses on all risks facing the organisation, whether operational or strategic. At an operational level, risk management can play a role in ensuring critical self analysis of operating norms at that level. Other techniques and methods such as Total Quality Movement have had success at this level, and their overall method seems to mirror that of ERM. Risk management also has the added impetus of being backed by a compliance requirement, which may ensure that energy and resources are made available for ERM initiatives.

Activities such as risk analysis and evaluation assist in interpretation of cues but they also reduce the levels of anxiety which grip people when faced with the unknown or the unexpected. Risk mitigation and planning also helps to reduce anxiety and thus assists in interpretation. For instance, where a risk can have a great impact on ongoing business operations, by performing drills and creating business continuity plans, people will be more prepared and able to act coherently in cases of extreme anxiety and uncertainty.

5.3 Limitations, exclusions and opportunities for further study

In this study, we deal with a number of concepts and areas in organisational learning, and risk management which are contested and disputed amongst different writers. While we note that there are disputes in these areas, we have not focused on them in favour of developing some coherence in the argument presented. One such area is the hotly debated discussion on tacit

and explicit knowledge, whether the distinction is relevant for any discussion of knowledge, and how it could be relevant from the perspective of learning. We are of the view that further study in this arena will be useful, because we remain of the view that inevitably learning will result from sharing both explicit and tacit knowledge and additional study in this area will undoubtedly provide further insight to how the two concepts relate, and how sharing them may be enhanced. From the perspective of ERM, it will provide some direction to the type of tools and techniques which may be used to effectively improve learning.

Another area which we have excluded includes an insight into the practical implementation of ERM and with regard to the efficacy with which ERM has been implemented in organisations. Our focus has been to determine whether conceptually, ERM could provide a basis for organisational learning, rather than to evaluate whether the quality with which ERM has been implemented would support or has supported organisational learning. We are of the view that ERM conceptually can support organisational learning in a number of ways. However, we believe that such further study can be instructive in that it will provide some insight into how ERM is practiced and to verify whether in reality it supports organisational learning. Such a study may indicate whether the espoused principles and activities of ERM are actually implemented in practice and, if so, the extent, if any to which they do enhance organisational learning.

Furthermore, it has been suggested that under certain conditions the views of minority experts may be overridden by majority views in respect of risks, which may severely impact organisational plans. Another practical aspect which we have touched on but not researched in detail refers to the cross functional teams brought together by risk management processes. We have seen potential for these teams to facilitate learning and decision making by increasing variety, but have not investigated the effectiveness of these teams in practice or whether it has improved cultural alignment, responsiveness and resilience. It would be useful to investigate this as well as practical lessons and techniques for improving cross functional cooperation.

We have suggested that organisations can benefit through improved decision making as ERM will reduce uncertainty and ambiguity normally attendant during these times, particularly through pre meditated plans and business continuity plans which can prepare people to make sense and act more quickly than they would ordinarily have. We believe that further research in this area would also be useful to determine whether ERM has been able to assist in this regard.

5.4 Summary

In conclusion, enterprise risk management activity can benefit organisational learning in a number of ways. It can assist in establishing a culture and belief system relating to risk and the management of risk, and it can contribute to knowledge management activities and tradition building. All of these have an impact in the way risk will be viewed but also the way all other activities will be conducted.

It can assist in engaging in double loop learning practices at operational levels, where this type of learning has generally been unsuccessful. It helps to create mental models and entrench these across the enterprise. It fosters a culture and an awareness of risk and potential for change in the organisation, and openly encourages the seeking of information which evidences a changing environment. Insofar as the implementation of changes and adjustments are concerned, ERM is both proactive and responsive. It is proactive by identifying creatively potential future consequences as well as mechanisms to manage them. This helps the organisation deal with uncertainty and ambiguity. It is reactive in that the organisation implements solutions and operating norm adjustments in response to environmental stimuli.

These attributes are akin to what is being sought by Morgan³³⁸ in respect of learning capabilities which organisations must inculcate. These include the ability to detect changes in environment; the ability to question and change operating norms; and to allow emergent structure to develop.

³³⁸ Morgan, G (1986) Images of Organisations, pg 90

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