# Organisational Decision-making: A Personal Construct Perspective

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# ABSTRACT

Management and organisational literature reports that half of all decisions are considered to fail, as they are either discarded before an implementation attempt, or are implemented with fruitless efforts. Such decisions are expected to be based on facts, information and expertise, and carried out in a rational manner. However, most organisational decisions are not based on precise information or carefully deliberated analysis; they are not objective or carried out in an isolated manner. Instead, organisational decisions are made through personal experiences, social relationships and interactions, and often in an unconscious manner. Thus, there is a need to understand the complexity of the 'ways' decisions are made in organisations, uncovering the hidden construing, expectations, orientations and interactions of organisational decision-makers. The focus of this study is the problem of how the complex phenomenon of organisational decision-making can be captured, modelled and explored in order to understand 'why' organisations make the decisions that they do. This study has identified a conceptual gap that represents an oversimplification of the complex and interlocking phenomenon of organisational decision-making. It is argued that there is a need to consider the multi-dimensional layers and interactions of the private and social worlds of the organisational decision. A conceptual model is presented that reveals the power of synthesising Organisational Sensemaking and Personal Construct Theory, to gain an alternative perspective of organisational decision-making that considers organisational decisions, sensing and actions. Additionally, this study proposes an innovative methodology known as FORMED to elicit the complex and iterative practices of decision-makers, thus providing a 'vehicle' through which the decision-makers are able to map their organisational decision landscape. An important constituent of this study is the ability to capture both the individual and social perspectives of each of the organisational decision-makers in a visible and measurable manner. The findings empirically demonstrate the influences of personal experiences, natural choices, behaviours, relationships and interactions upon the organisational decision, which is concerned with the planning and development of organisational growth. An emergent empirical finding established how operational and strategic management tensions are a natural and essential aspect of the organisational decision and confirmed how the discussion of assumptions and distinctions can trigger a debate and agreement regarding the organisation's identity, its direction and its policies. Thus, through reflective practices decision-makers demonstrated their ability to step out of their habitual choices and change their circumstances, as they moved through the terrain of the organisational decision landscape, reconsidering their choices and orientations, ultimately shifting their organisational decision.

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# Part A

# Setting the Scene

# CHAPTER 1     INTRODUCTION

*"We no longer claim that the only way to make a good decision is to generate several options and compare them to pick the best one (experienced decision-makers can draw on patterns to handle time pressure and never even compare options)… We no longer believe that people make sense of events by building up from data to information to knowledge to understanding (experienced personnel use their mental models to define what counts as data in the first place)…" Klein (2015b:83)*

## 1.1    PURPOSE

This is not a study on *'how'* decisions are made in organisations, nor indeed *'how'* they should be made. It is not a study on *'what'* is known about a decision context or *'how'* the context is defined and managed. It is not a study that explores types of organisational decisions, their impacts, their successes or failure. Neither is it a study regarding decision-makers' characteristics, their effectiveness or the conditions under which decisions should be made. This thesis argues that the 'how's' and 'what's' of organisational decision-making should not be a primary concern. Instead, the *'ways'* that meaning is created, the *'ways'* that managers make sense and the *'ways'* they find themselves acting and interacting are central to gaining an in-depth understanding of organisational decisions.

The research is significant both academically and for management practice as an alternative standpoint is adopted that synthesises Organisational Sensemaking (Weick, 1979, 1995) and Personal Construct Theory (Kelly, 1955). New insights demonstrate that, if organisations can describe and see the *'ways'* organisational decisions are created and influenced from experiences and interactions, then they can understand *'why'* they make the decisions that they do. Revealing a deeper understanding of why decisions are made in the way that they are is a critical dimension of decision-making that is often overlooked (Weick, 1979; Fast and Clark, 2011).

This study has developed an innovative methodology known as FORMED that maps the ways that decision-makers *sense* an organisational decision, demonstrating how the decision is created and recreated within both a private and a social context. The findings empirically reveal the influences of personal experiences, natural choices, behaviours, relationships and interactions upon the organisational decision, which is concerned with planning and development of organisational growth.

## 1.2  ORGANISATIONS: SETTING THE SCENE

Organisations are not independent of conscious intentions or unconscious motivations; they are collective arrangements whereby managers give meaning to situations and activities (Fast & Clark, 2012). Managers create their existence and live within their environments, situations and activities (Blumer, 1969, Schutz, 1970; Mead, 1962). Managers play a critical role in this shaping of organisations as they are the creators and organisational enactors (Weick, 1995). Thus, organisational life and events do not simply happen; they are simultaneously shaped and are being shaped by individuals; they are construed. The ways that managers construct meaning and reality are central in organisational theories; such processes are deemed complex ongoing processes that are "instrumental, subtle, swift, social and easily taken for granted" (Weick , Sutcliffe & Obstfeld 2005:409). However, this study does not seek to ask questions about reality; rather, it seeks to open the door to a consideration of meaning placed upon it and the ways managers orientate within it.

Much of organisational life is taken for granted, unreflective and deemed to be static (Czarniawska-Joerges, 1992). However, just as organisations and environments are constructed, they too can be reconstructed, changed and adapted. Nothing is ever final and clear cut. This study recognises the need for reflective reconstruction of social relations – how individuals see themselves in relation to others, the roles that are played, and the needs of those roles. "Humans live in two worlds – the world of events and things (the territory) and the world of words about events and things (the map)" (Weick, 1992:2). Meaning is created through interactions between the two worlds, and between managers. Therefore, multiple individual realities exist. Such phenomena cannot be separated but instead operate simultaneously, and as a consequence organisational life should not be deliberately fragmented by 'levels' and 'parts'. Instead, there is a need to consider the whole, as individuals do not have a "self-enclosed way of acting, independent of everything else" (Schutz, 2010:55 ). As Dewey (1927:186) argues, both "individual" and "social" are "hopelessly ambiguous, and the ambiguity will never cease as long as we think in terms of an antithesis". This view is supported by Weick (1979:33), who states that any organisational inquiry needs to examine sites for both collective and individual behaviour, further supporting the importance of moving beyond fragmented studies that focus on parts of the organisation that are deemed to be static in nature. This study views an individual as a system, integrated within a group setting; the group is a defined system operating within a wider organisational system. Thus, it rejects the individual/social

distinction in favour of situated analysis of actual phenomena, and an understanding of systemic interactions.

## 1.3    DECISIONS WITHIN ORGANISATIONS

The concept of 'Decision' is one of the most widely and firmly accepted concepts in the field of organisational theory" (Mintzberg & Westley, 1990:1). There is an acceptance that organisations do make decisions and that decision-making is widely regarded as a central concept in organisational theory (Litchfield, 1956; March & Simon, 1958; Drucker, 1974; Simon, 1987; Cooke and Slack, 1984, 1991; Cyert & March, 1963; Mintzberg, 1976; Ackoff, 1953; McLaughlin,1995; Chia, 1994; Boisot, 1998; Child & Ihrig, 2013; Nutt and Wilson, 2010; Larrick , 2016). As it is proposed that managers devote substantial time to making appropriate organisational decisions (AI-Tarawneh, 2012), their actions are expressed as an outcome of a managerial decision and are considered to be a major determinant of an organisation's success or failure (Nutt & Wilson, 2010). Despite this, management and organisational literature continues to report that half of organisational decisions are considered to fail with little or no benefits being realised, as decisions are either discarded before an implementation attempt, or are implemented with fruitless efforts, or devastating results (Daft & Marcic, 2016; Nutt 1999, 2002, 2010; French et al., 2009).

It is customary for conventional decision-making studies, both experimental and empirical, to concentrate on an act or processes, as if decision-making was a discrete and simple event. The assumptions made in the extant literature obscure the questions around the creation and understanding of decisions. There needs to be a focus on the ways that individuals interpret their organisational decisions (Fast and Clark, 2011). Understanding the histories and experiences of managers as they look upon the past, the current and the future can provide a rich contribution to the decision-making body of knowledge. Challenging the traditional assumptions in the literature gives rise to alternative questions that underpin this research. What are the ways in which managers construct their organisation and environment? What are the ways they interpret such environments and what ways do they act within it? In this way, this study is centred on getting the picture and exploring decisions through a sensemaking perspective.

Whilst executing an organisational decision is deemed to be important, it is argued that "uncovering and exploring claims and the concerns that prompt them" (Nutt, 2010:191) are equally important, which is an area that is often unexplored. There is a call "for skilful questioning to get to the bottom of things", agreement to engage in "reflective listening", a

search "for deep feelings", "an inner voice", to "confront each position 'in the decision', accepting the uncertainty of not knowing what is best" (ibid:191). Such ideas are compared to the "notion of mystery" as "a decision does not pose a problem to be solved but a mystery to be embraced" (Nutt, 2010:191-2). They are deemed to be key to successful decision-making and identify a need to explore and understand the decision from an inner psychological space. Such concerns illuminate the need to invest time in exploring organisational decisions, acknowledging interactions, considering competing personal interests, using a dialogical, reflective mindset to gain a deeper understanding (Nutt, 2010). As Weick (1979:13) states, "organisations have a major hand in creating the realities which they view as 'facts'".

## 1.4 A SENSEMAKING PERSPECTIVE OF DECISIONS

Traditionally, decision-making literature has tended to focus upon an isolated event, a moment projected against personal, social and organisational goals or objectives (Harrison, 1999; Leigh, 1983). Attention is focused towards consequences of action (Staw, 1981) and considers only what is revealed at the time a decision is made official (Mintzberg and Waters, 1990). "Decisions, like so many other concepts in organisational theory, can sometimes turn out to be an artificial construct… 'decision' that can sometimes get in the way of understanding behaviour" (Mintzberg & Water, 1990:5). Weick (1993:634) also supports this view and observes that "most organisational analysis begins and ends with decision-making", but also notes that "there is a growing dissatisfaction with this orthodoxy". In response to such concerns, this study adopts a growing perspective of Organisational Sensemaking to understand decisions (Hodgkinson & Healey, 2008; Gioia & Chittipeddi, 1991; Weick, 1995). Such a perspective moves attention from an isolated event to the meaning placed upon it, in an ongoing world that is co-created by managerial decision-makers through their subjective experience and social interactions. Additionally, attention is given to where alternatives originate, as Simon (2013:126) comments that the classical rational view of organisational decision-making provides no explanation of their creation as they are simply presented "as a free gift to the decision-makers". A focus upon the decision remains, through a sensemaking perspective: there is a consideration of alternatives and choices open to decision-makers during the process of making a decision, and there is a need to understand from where such alternatives and choices have originated. Sensemaking sets the frame of reference for a decision, offering insights into the ways decision are created, shaped and defined. Thus, it provides a "look under the hood" (Seligman, 2006:110), a consideration for the origins of alternatives which are often

assumed as a given, a pre-existing input to decisions that is often overlooked or oversimplified in literature and practice. Sensemaking is about providing clarity, it is about defining the decision, but it is also about providing answers and options (Drucker, 1974). Through the adoption of a sensemaking perspective, the private and social journey of decision-makers can be explored. This study is not limited to the discovery and evaluation of a single decision event – it is much broader than that.

Weick (2012:56) highlights the dynamics and importance of a sensemaking perspective through a statement made by practitioner Paul Gleason:

> *"If I make a decision, it is a possession, I take pride in it. I tend to defend it and not listen to those who question it. If I make sense, then this is more dynamic and I listen and I can change it. A decision is something you polish. Sensemaking is a direction for the next period."*

Weick (2012:56) further comments that,

> *"…when Gleason perceives himself as making a decision, he reports that he postpones action so he can get the decision 'right' and that after he makes the decision, he finds himself defending it rather than revising it to suit the changing circumstances… If, instead Gleason perceives himself as making sense of an unfolding fire, then he gives his crew a direction for some indefinite period, a direction which by definition is dynamic, open to revision at any time, self-correcting, responsive, and with more of its rationale being transparent".*

## 1.5    SENSEMAKING IN ORGANISATIONS

Recent articles have reaffirmed the prominence of the sensemaking perspective and its influence in organisational and management theory (Hernes & Maitlis, 2010; Holt & Cornelissen, 2014; Maitlis & Christianson, 2014; Sandberg & Tsoukas, 2015; Brown et al., 2014; Brown, 2015).

Weick's (1995) Theory of Organisational Sensemaking is adopted within this study as a perspective for understanding the ways that decision-makers sense their organisational decision addressing, and the ways that individuals and groups give meaning to the decision. This stance sees decision-making as part of the "discursive processes of constructing and interpreting the social world" (Gephart, 1993:1485).

Sensemaking can be implicit in that the individual draws upon their experiences and meaning gained through time. Such experiences and meaning are stored within systems of the unconscious, often described as a 'gut feeling', simple 'intuition' or merely 'the way in which something has always been done'. Sensemaking can also be explicit, in that it occurs when the individual is deliberate and mindful of their surroundings and where there is no clear way to engage with the world. Weick (2005:409) states that: "people look first for reasons that will enable them to resume the interrupted activity and stay in action. These 'reasons' are pulled from frameworks".

Weick (1979) has proposed that a trick in organisations is for meaningful action to be coordinated, further proposing that this can be achieved through sensemaking recipes. This study considers three sensemaking recipes, presented in turn. The first is "How can I know what I think until I see what I say?" (Weick, 1979:133). This signature sensemaking 'recipe' implies that individuals come to know the meaning of their decisions through a continuous process of reconstruing reflection, as they see or enact the decision itself. Importantly, Weick (1995) acknowledges that decision-makers are not singular; they are unique and may be similar but they do not act alone. At this point, Weick's sensemaking question becomes not 'I' but 'we': "How can *we* know what *we* think until *we* see what *we* say?" (Weick, 1995:62). However, decision-makers do not just exist within a social context; they interact and engage, in a coordinated and interlocking manner. At this point, the sensemaking question moves once more to a collective perspective: "How can *I* know who *we* are becoming until I see what *they* say and do with *our* actions?" (Weick, 2009:142). Each of the three questions can be represented as a 'recipe' that is embedded in the past, present and anticipated future. Recipes are schemes of interpretation in that it provides an automatic explanation of what people who act in certain ways are up to" (Schutz, 1964; Weick, 1979).

Although a sensemaking perspective is embraced within this study, as a critical lens through which organisational decision-making can be explored, it alone does not provide a way of gaining a picture, a map of the ways that organisational decisions are created through social interactions. The Personal Construct Perspective (PCT) is used to complement sensemaking in order to unpack and articulate the ways, structure and content and conclusions of the decision recipes. It is argued that PCT provides the ability to map the organisational decision landscape, the terrain of individual and social recipes. In other words, PCT is used to operationalise the ways that decision-makers sense an organisational decision.

## 1.6    PERSONAL CONSTRUCT THEORY

Personal Construct Theory (PCT) originated in clinical psychological practice through the work of George Kelly (1955). Several authors have reviewed the diversity of its application (Fransella, Jones & Watson, 1988; Jankowicz, 1990; Brophy, 2007; Winter, 2016; Cornelius, 2016). PCT is believed to be a "comprehensive theory of human experience and action" (Faidley & Leitner, 1993; Phillips, 2005) which provides an account of the experiences and construing of individuals within a social context; in other words, how they make sense of a situation, a person and – in the context of this study – an organisational decision (Raskin, 2011; Epting &Paris, 2006; Butt and Burr, 2004).

Whilst PCT can be considered to be a complementary perspective to Organisational Sensemaking, it adopts a personal construct-orientated approach and provides a measureable appreciation of the unique ways of construing. PCT provides a focus upon the individual, their experiences, interactions and relationships, through which it is possible to understand from where decision alternatives, choices and orientations originate. A conversational approach reveals how decision-makers are often not consciously aware of their construing as they take for granted their unique ways of behaving, seeing and thinking about decisions. Through the exploration of what lies beneath decisions, the ways alternatives are actually created and what influences an organisational decision, traditional assumptions are challenged. The surfacing of the meanings attached to an organisational decision creates an opportunity to consider possible future courses of action and even reconsider the organisational decision itself. The synthesis of Organisational Sensemaking and PCT emphasises the need to treat decision-makers as scientists, who formulate hypotheses about their decisions, test them out and if necessary revise them. PCT places the decision-maker as being of equal importance to the decision itself.

In order to understand the construing of individuals, Kelly (1955) developed a methodological extension to PCT which is known today as the Repertory Grid technique. The RepGrid has been compared to a "thinking tool" (Shaw & McKnight, 1981) and is a widely used technique that consists of two main phases: a knowledge elicitation phase and a rating grid phase. At the heart of this technique is the aim to enable decision-makers to reflect in depth upon their own constructs and their personal view of the world, which inform their decisions and actions. This study suggests that PCT and the Repertory Grid provide a comprehensive perspective that explores and uncovers the salient factors often overlooked within organisational decision making.

## 1.7    CONCEPTUAL MODEL

As previously mentioned, this study combines two notable theories, Organisational Sensemaking Theory and PCT, in a conceptual framework (Figure 1) in order to illuminate the ways that organisational decisions are created.  The conceptual model examines sites of both collective and individual decision-making, each considered to be a system interacting within a wider organisational system as individuals do not have "self-enclosed ways of acting, independent of everything else" (Schutz, 2010:55).

The conceptual framework consists of several interacting layers: the individual, group and organisational layers, which, when considered together, define the 'organisational decision' from the perspective of the decision-makers.  Each layer comprises multiple 'decision recipes', both individual and social, that represent a snapshot of the organisational landscape at a particular moment from the decision-makers' perspective.
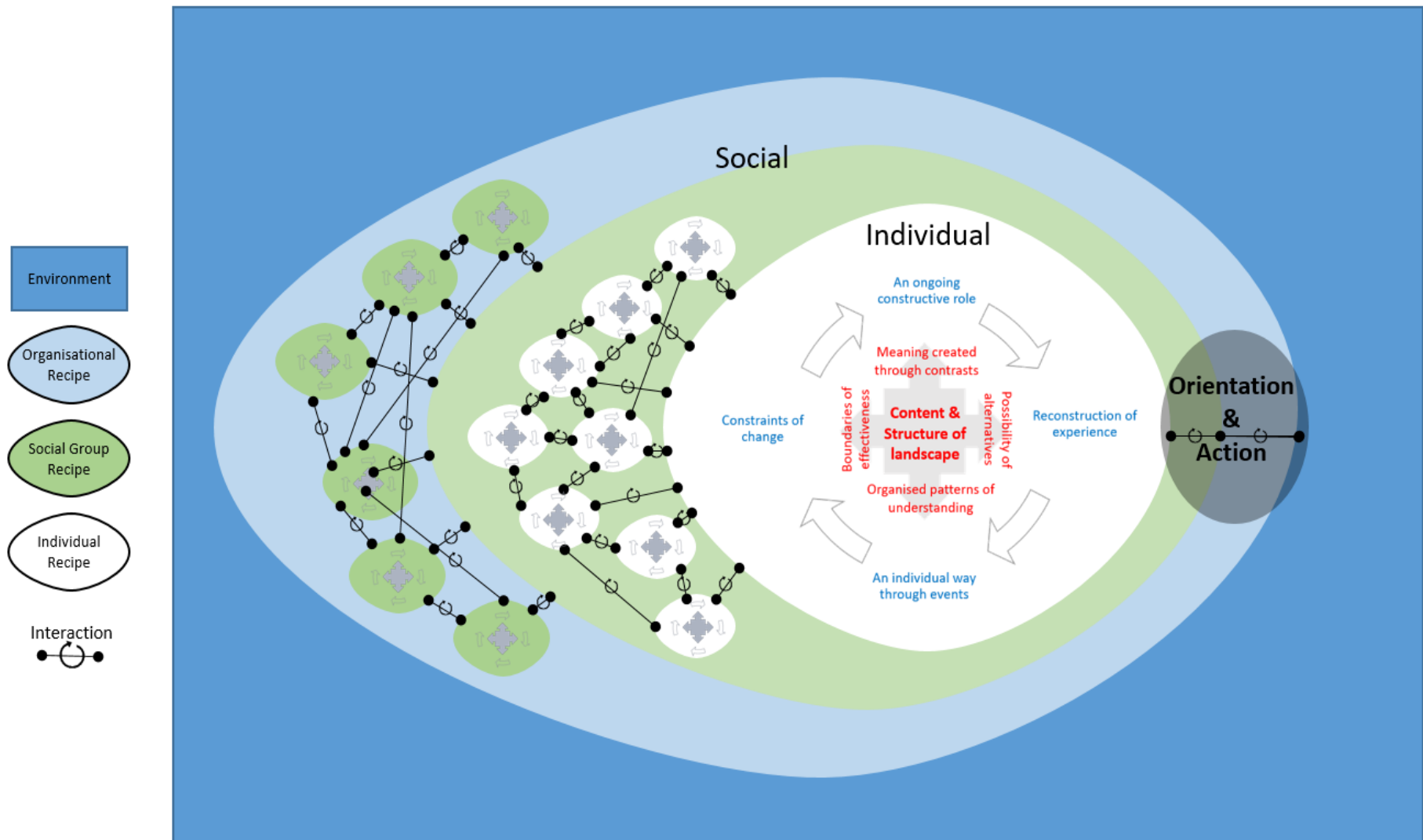
*Figure 1: Conceptual model*

### 1.7.1 The organisational decision landscape

This research addresses the need for an empirical study that moves beyond the uniqueness of the individual decision-maker and past group decision-making commonality and consensus. There is a need to focus upon the whole, its interactions and the social embeddedness of the organisational decision-maker, without adopting a reductionist approach to such complex and dynamic interrelationships.

The notion of a decision landscape seeks to portray a multi-dimensional map that represents the organisational decision from the perspectives of decision-makers. The organisational decision landscape focuses upon plausibility, not accuracy, and defines meaning, distinctions and orientations of those involved in making the decision. The landscape clarifies the terrain, mapping interwoven pathways defined by the individual within their social context.

### 1.7.2 Decision recipes

Drawing on the work of Weick (1995, 1979), Kelly (1955) and Schutz (1962, 1964, 1967, 1970), the notion of 'decision recipes' is used as a metaphor to define, measure and track the development of the sense of a decision. Decision recipes are defined through a process of construing, both individual and social, capturing the content, structure and conclusions of the meaning from the decision-makers' perspective.

Decision recipes capture distinctions, which represent meanings, which are essential features of the way in which individuals conceptualise their experiences. Recipes may be chaotic, contain inconsistences and variations, and thereby contain the possibility of alternatives. Recipes evolve and change to reduce incompatibles and inconsistencies. Recipes are repertories that are structured and ordered; they are flexible and frequently modified. However, recipes have boundaries of effectiveness as they are defined by the moment of their creation. They can both facilitate and restrict the decision-makers.

### 1.7.3 The individual layer

This study adopts the perspective that there is not a single 'correct' view of an organisational decision. As a result, the individual layer of the conceptual model comprises the multiple decision recipes depicting the private journey of the decision-makers to make

sense of a decision, mapping taken-for-granted assumptions, personal values and histories to ultimately create their unique decision recipe.

Each individual recipe is an active refinement process that permits decision-makers to make sense of the organisational decision. The decision-makers search for repetitions of the current event within past events, as they extract their past experiences to make sense of the decision. As they make sense, they reconstruct, developing their decision recipes for the purpose of anticipation as the situation evolves. They make distinctions and choose between them, creating their unique, individual way through events. Such distinctions and choices are often made unconsciously as decision-makers are not always aware of their capacity to make sense.

### 1.7.4 The group layer

The group layer represents the social embeddedness of decision-making, whilst the individual layer is concerned with the idiosyncratic nature of the decision recipes. This layer considers the possibility of difference (individuality), as well as the possibility of similarity (commonality). More practically, it explores how decision-makers understand each other's differences, discovering the unique and private constructs that make that person tick. This layer is concerned with the social interaction of the decision-makers and their social journey as groups create and recreate the organisational decision landscape. Much more importantly, this group layer is also concerned with the extent to which a group of decision-makers can convey understanding, trying out the others' recipes (Sociality Corollary) as they each play an active social role (Kelly, 1955; 1970; Jankowicz, 2001; Adams-Webber, 2003).

### 1.7.5 Interactions

Interactions involve reflection and questioning, as decision-makers go over things, digging deep, weighing-up choices and alternatives that are not always obvious to the individual. Their processes are focused upon orientations and actions, providing an opportunity to clarify, as if seeing their personal and social journeys in a mirror, standing back, considering orientations. It is through the consideration of interactions that it is possible to gain a complete picture of the organisational decision. Drawing upon Kelly's (1932) notion of the group mind, this conceptual model considers the influences, the interactions through which adjustments and reconstructions are being made, as the complexity of the individuals (sub-pattern) and group (super-pattern) are exposed.

## 1.8 RESEARCH QUESTIONS

This research study aims to reveal the power of synthesising Organisational Sensemaking and Personal Construct Theory for the purpose of gaining an in-depth understanding of the ways that decision-makers create and recreate their organisational decisions.

To meet this aim, the following research questions will be addressed:

1. In what ways do individuals within a social context create and structure organisational decision landscapes?
2. In what ways can the individual and relational influences of organisational decision landscapes be mapped?
3. What impact does a deeper understanding of the decision landscapes have upon the decision itself.

## 1.9 POSITIONING STATEMENT

This study adopts the paradigm of 'pragmatic constructivism', whereby knowledge neither claims to reflect an ontological reality (for nobody could rationally prove its existence) nor does it reveal its characteristics when this reality exists. Pragmatic constructivism offers an elaborate and practical perspective that permits a rich exploration of the ways that managers create a decision landscape through an ever-changing and social undertaking of meaning and action. Knowledge is built from human representations that give meaning to situations. Such a paradigm supports exploration and further understanding of how meaning is created and, fundamentally, the ways that managers construct the decision landscape, rather than capturing a true representation of reality. Further still, managers' interpretations and meanings are deemed to be built from their personal experiences, actions and social interactions. There is an emphasis on action rather than interpretation, which is not focused upon change and relationships. Such pragmatic assumptions are reflected within Personal Construct Theory (Kelly, 1955) and Organisational Sensemaking (Weick, 1995).

## 1.10 AN EMBEDDED CASE STUDY

Case study research has a long, well-established reputation in business and management research (Yin, 2003) and is a common form of social research (Stake, 2005, 2013; Yin, 2005). This study adopts a common notion of a case study as a bounded system (Smith,

1978), drawing attention to an entity that has a boundary and working parts rather than a process (Stake, 2005). Case studies can be designed as either holistic or embedded in nature and either a single case or multiple cases (Yin, 2009). An embedded single-case study approach has been adopted as each organisation is a complex, open, living system of heterogeneous, interacting networks and should not be fragmented and deliberated by 'levels'; there is a need to consider the whole (Kirman, 2004). In line with the research aim, the embedded approach allows for the development of an iterative research process to evolve within its real-life context, whilst an understanding of multiple units of analysis that are embedded in the larger whole can be gained. Such an approach would represent a typical case with the aim of capturing the circumstances and conditions of everyday actions within an organisation. As the research questions are focused upon more than one unit of analysis, an embedded case study is selected as it has the advantage of sub-units of analysis, thus allowing for a more detailed level of inquiry (Yin, 2003; Wilson, 2002). Further still, equal focus is given to each of the embedded units of analysis (individuals) together with their interactions and the larger units of analysis, known as cases (groups of individuals), whilst also maintaining a focus on the phenomenon (organisational decision).

The empirical context is a maintenance and construction contractor, originally formed in the 1980s as a family-owned business, but now a legal wholly-owned commercial entity within the social housing sector. The Senior Management Team and the Middle Management Team were tasked with delivering a significant increase in growth over a three-year period. The organisation further faced pressures from its Board and the wider industry to diversify its income to reduce its reliance on government grants. Pressures were compounded by the need to balance current operational resources and the possibility of commercialisation, change and growth. Thus, a case study can enrich and potentially transform the understanding of the ways that decisions landscapes are created through exploration and analyses of complex social interactions to uncover or construct "inseparable" factors that are elements of the phenomenon (Yin, 2003).

## 1.11 ORGANISATION OF THIS STUDY

This study has been undertaken in an iterative process between theory, methodology and practice. However, the final work is organised and presented within the core chapters illustrated in Figure 2.

This chapter has provides the research context, setting the scene for the subsequent chapters.

| Part A<br>Setting the Scene | Part B<br>Setting the Theoretical Stage | Part C<br>Providing Empirical Evidence | Part D<br>Conclusion & Outlook |
|---|---|---|---|
| **Chapter 1**<br>**Introduction** | **Chapter 2**<br>**Literature Review**<br><br>Organisational theory<br>Decision-making<br>Structuring methods<br>Sensemaking<br>Personal Construct Theory | **Chapter 3**<br>**Research Design**<br><br>**Chapter 4**<br>**Research Findings**<br><br>**Chapter 5**<br>**Discussion** | **Chapter 6**<br>**Conclusion**<br><br>**Chapter7**<br>**Outlook** |

*Figure 2: Organisation of this study*

Chapter 2 sets the theoretical stage, presenting a discussion of the key strands of academic literature relevant to this study. A broad discussion of Organisational Theory, Decision-making, Sensemaking, Personal Construct Theory and Operational Research Methods is provided. Finally, the chapter concludes with a brief discussion that exposes the power of conjoining Organisational Sensemaking and Personal Construct Theory.

Chapter 3 discusses the research design. This chapter begins by examining the various research philosophies and theoretical perspectives. Following this, the research approach, research methodology, methods of data collection and analysis are discussed in turn. A discussion of the evaluation criteria used to interpret and report the findings of this research is also provided. The chapter concludes with a presentation of the pilot study, its results and lessons.

Chapter 4 presents the empirical evidence and analysis. The innovative methodology is discussed and implemented within a case study context. Initially, the exploratory study is detailed. The chapter then outlines the planning of the empirical study and presents the empirical evidence as three phases. Phase 1 captures and analyses the individual decision-makers' recipes. Phase 2 captures and analyses the social decision-making recipes, thereby bringing others into focus as the social interactions of the organisational decision-makers are considered. The third phase explores the intertwined stories of the individual and group decision recipes as the decision-makers' orientations and actions are explored.

Chapter 5 provides a discussion of the empirical evidence and analysis. The researcher provides further interpretation and describes the significance of the findings in line with current literature presented in Chapter 2.

Chapter 6 provides a conclusion to the study and highlights the key findings, limitations and implication of these findings.

Chapter 7 brings this thesis to a close with a discussion of potential future research that can be undertaken to further the knowledge and practice of organisational decision-making.

# Part B

# Setting The Theoretical Stage

# CHAPTER 2        LITERATURE REVIEW

*"A striking characteristic of organisational life is that there is a lot of talk about decisions, decisions that have been made, are to be made, will be made, should be made, will never be made; talk about who makes decisions, when, how, why and with what results.  Organisation members interpret a significant part of activities around them in terms of decisions." (Laroche, 1995:67)*

## 2.1    INTRODUCTION

The purpose of this chapter is to contextualise the research questions within existing literature, providing a theoretical background for the preceding empirical sections. Research on organisational decision-making is built upon insights arising from an immense and diverse set of literatures; therefore, several streams of literature have grounded the conceptual framework.  Each are reviewed in turn and presented as several mini literature reviews.

The structure of this chapter is shown in Figure 3 and presents the researcher's route through the literature.



| **The content of organisational decisions** |
| *What is the context of this research? Why is organisational decision-making important?* |

| **Decision-Making** |
| *What are the prominent theories of decision-making and what are their advantages & limitations?* |

| **Sensemaking** |
| *What are the potential benefits and limitations of adapting a sensemaking perspective?* |

| **Personal Construct Theory** |
| *What is this theory about?  How can it enhance the sensemaking perspective?* |

| **Structuring Methods** |
| *What methods & tools are available and how can they be applied to address the research question?* |

*Figure 3: Structure of chapter 2*

## 2.2 THE CONTEXT OF ORGANISATIONAL DECISION-MAKING

Organisational theories are a way of thinking about organisations; they form a diverse set of assumptions regarding the purpose of the organisation itself, the reasons why people work within organisations, their formal and informal structures, their cultures and their decisions. Thus, even today, "organisational theory is a wide territory, and its landscapes are manifold" (Schwaninger & Scheef, 2016:1). Over the years, many different schools have evolved and populated this territory with distinct perspectives. Many authors have tried to map this landscape, such as Hatch and Cunliffe (2013), who identify four major perspectives within a chronological order: classical, modern, symbolic-interpretive, and post-modern. Bolman and Deal (1991) distinguish between four approaches: structural, human resources, political and symbolic. Scott and Davis (2015) propose a typology for organisational analysis: 1) rational systems, 2) natural systems, and 3) open systems. Morgan (1997) structures the high variety of organisational science schools through the lens of eight metaphors: the machine, the organism, the brain, the culture, the political, the psychic, the flux and transformation, and the domination. The purposes of the metaphors are to create new ways of thinking about organisations and further illustrate how the management and design of organisations can be improved. Given the notable range and complexity of organisational theory, a brief overview of the relevant key literature is given to provide context for the following sections of this study.

The current status of organisational theory is rooted in the contributions of a classical school of thought. There are four notable theorists; the first is Adam Smith (1776), who published his book 'The Wealth of Nations', which noted the benefits of the division of labour and specialisation as bringing about significant economic efficiencies. The second theorist, Frederick Taylor (1911), is known for starting the Scientific Management Movement and was one of the first to study work processes scientifically. Taylor's primary focus was upon production and organising individual tasks. Thus, managers were seen to be primarily motivated by economic rewards. His work embodied the perspective of a rational man who seeks to maximise his efforts and efficiency, and was based upon the assumption that all uncertainty, internal and external, could be controlled, standardised and mechanised. Taylor (1911) dehumanised organisations as they were seen to be goal-setting, machine-type entities working towards a single goal in a harmonistic manner. Another important contributor was Frank Gilbreth (1911), who focused on identifying efficient work movements, which became known as 'time and motion' studies. Lillian Gilbreth

(1914), Frank's wife, published a doctoral thesis entitled 'The Psychology of Management', making an early application of psychology within organisational studies, and paying particular attention to the human implementation within scientific management, as she considered skills and abilities. Together, husband and wife made contributions to classical organisational theory as they focused upon the role of the worker, whilst, Henri Fayol's (1949) administrative management theory focused upon the role of managers, taking a top-down, managerial approach to dividing and coordinating complex work systems.

The classical and notable theorists concerned with scientific management, administrative principles and bureaucratic approaches were effective. However, over the years, contrasting organisational theories developed that considered human relations with the work of Elton Mayo (1933), who was one of the first to challenge the classical view, through a series of experiments conducted by himself and Roethlisberger in the late 1920s at the Western Electric plant in Hawthorne, Illinois. Mayo's (1933) works, popularised by the Hawthorne studies, became known as the Human Relations Movement and in many ways have remained central to much of the managerial thinking of today. As individuals were studied in a social context, it was established that the performance of employees is influenced by their surroundings and working conditions and by the people that they are working with as much as by their own innate abilities.

Chester Barnard (1938) proposed his theory of organisation, which can be considered to be one of the first modern theories of organisational theory as it defined organisation as a system of consciously coordinated activities. The work of Mayo (1933) and Barnard (1938) emphasised that organisations are social systems that embody values and norms and should not be simply viewed at settings for work.

Douglas McGregor (1960) articulated two sets of contrasting assumptions, labelled as Theory X (recognised as an authoritarian management style) and Theory Y (recognised as a participative management style). Together, the theories articulate basic assumptions of organisational behaviour as a contrast to the tenets of classical organisational theory.

The works of Weber (1947) contributed to the notions of bureaucracy. Weber's interest in the nature of power, authority and rationalisation led to the concerns of the operations of modern large-scale enterprises in the political, administrative and economic realms. This bureaucratic coordination of actions has become the dominant structural feature of modern forms of organisation.

Taylor (1911), Mayo (1933), Barnard (1939) and Weber (1947) shared the belief that the goal of management was to maintain equilibrium, through an emphasis on control and manipulation of workers and their environment. However, a third movement known as The Contingency Approach believes that managerial actions can be adjusted to specific circumstances, as an organisation is deemed to be adaptive. Thus, conflict is viewed as unavoidable, but manageable. This approach states that neither mechanistic forces nor humanistic forces provide solutions to the challenges faced by organisations, but it is through their synthesis that managers can find better guidance. Simon (1945) proposed a model of "limited rationality" and argued that the organisational theory of his day was an oversimplification. A critical element of Simon's work was the rigorous application of a scientific method, through a reductionist and deductive logic. Morgan (1997), in his book 'Images of Organisations', describes the main ideas underlying contingency theories.

In retrospect, further stands of literature also shaped and redefined organisational studies. During the 1950s a general systems movement emerged through the work of Von Bertalanffy (1968), introducing the concept of the system as a new paradigm, which focused on interactions and that a change in the environment would in effect initiate a change in the system. A number of scholars recognised the benefits of this perspective; Boulding (1956) was amongst the first to emphasise that organisations were open systems, characterised by complexity and reactivity. Katz and Kahn (1966, 1978) apply the concept of the open system to the organisation built by energetic input-output where the energy coming from the output reactivates the system. Social organisations are then open systems due to their material exchanges with the environment. Emery and Trist (1960) address organisations as socio-technical systems comprising: a social component (people) and a technical component (technology and machines). The Viable System Model (VSM), on the other hand, outlines the system as an entity that is adaptable for the purpose of surviving in its changing environment (Beer, 1972), which draws from the works of Wiener (1948) and Ashby (1958). The viable system is an abstracted cybernetic description that is applicable to autonomous organisations. Additional theorists have had a notable influence upon organisational theory, such as Woodward (1958), Chandler (1962), Burns and Stalker (1961), Lawrence and Lorsch (1967), Perrow (1967), Pugh and Hickson (1976), Weick (1969), Drucker (1974), Pfeffer and Salancik (1978), Hedberg (1981), Mintzberg (1979), Argyris (1972, 1982, 1993, 2015) and Senge (1990, 2014), who have considered organisational learning and change.

In reviewing the early field of organisational studies, Gouldner (1959) identified two underlying models. The first takes a rational perspective which places emphasis on rational design, planning and control, whilst the second can be characterised as a natural systems perspective which views the organisation as an emerging organic system of collaborative individuals. Today, this divide is still visible within organisational literature (Stowell, 201; Langenberg & Wesseling, 2016). Table 1 summarises the two mainstream perspectives and their implications for organisational research and how they influence the context of this research.

*Table 1: Organisational perspectives*

| A traditional & architectural vision | The Weickian vision of an organisation |
|---|---|
| **Impact on the individual manager** | |
| • Design affects managerial ability<br>• Managerial action is individual | • Managerial ability affects design<br>• Managerial action is social |
| **Impact on decision-making** | |
| • Decisions determine effectiveness<br>• The purpose of design is to facilitate decision-making<br>• People decide and then they act | • Interpretations determine effectiveness<br>• The purpose of design is to facilitate interpretations<br>• People act and then they interpret |

An organisation can be compared to an architectural design for the purpose of defining its normative nature. However, literature has argued for a second perspective, one where an organisation is not viewed as a rational machine, a static concept concerned simply with goals, hierarchy and the division of tasks and responsibilities (Checkland & Holwell, 1998:80). Instead, the second perspective views an organisation as a series of interactions between customers, suppliers, competitors and many other elements of the external environment (Daft, 2007, 2016). This viewpoint emphasises beliefs, values and assumptions that guide organisational actions (Smircich & Stubbart, 1985; Weick, 1995) as the organisation is deemed to be a living system, a social system. The variety of conceptual schemes and orientations that guide organisational theory is influenced by questions and answers within the organisations, rather than from pursing questions arising strictly out of the paradigms themselves (Scott & Davis, 2015). There are generally considered to be three levels of analysis within the study of organisations (Blau, 1957), which can be defined as: the social psychological level, focused on the behaviour of individuals or interpersonal relations within the organisation. Such a perspective is exemplified by the work of Katz

and Kahn (1978) and of Weick (1969, 1995).  The organisational level, focused on the structural features or processes that characterise the organisation, or examining the behaviour of the organisation itself as a collective actor.  Researchers working at  the organisational level include Pfeffer and Salancik (1978).  The third level is ecological, which focuses on the characteristics or actions of the organisation viewed as a collective entity operating in a larger system of relations.  There is often a focus upon organisational strategy, organisational design (structure, culture, processes, people, technology and organisational performance (Connor et al, 2012),

This study adopts the social psychological level and in particular a Weickian view of organisations, a perspective that views the organisation as an abstraction and not outwardly visible, a notional concept.  Speaking about an organisation in such a manner gives attention to relationships and interactions and gives rise to alternative questions and permits the study of organisations in different ways.  Thus, this study adopts the view that each organisation is a complex, open, living system of heterogeneous, interacting networks comprising groups, individuals, ideas, information, knowledge and experience (Katz & Kahn, 1978; Weick, 1979; Morgan, 1998), which has implications for the study of organisations.

A Weickian view of organisations proposes that organisational realities are not waiting to be discovered (Weick, 1979), as managers construct the realities depending upon "What people see, predict, understand, depends on their cognitive structures… that manifest themselves in perpetual frameworks, expectations, world views, plans, goals... myths, rituals, symbols... and jargon" (Nystrom and Starbuck, 1984:55).  Individuals transform their preferences and their identities and shape organisations (Shapira, 2002).  As a result, different people can look at the same incident and draw vastly differently conclusions about its meaning and importance.  The implication of constructed realities for academic research is that methods and analyses need to consider complex systems of human emotions, histories, experiences, beliefs and values that have capacities and abilities to remember, hypothesise, analyse, change and adapt within the organisation.

## 2.3  DECISION-MAKING

To support the contextualisation of the empirical research, this section introduces a stream of research on decision-making. Decision-making is widely regarded as a central concept in organisational theory, as it is proposed that managers devote substantial efforts to making appropriate organisational decisions; their actions are expressed as an outcome of a managerial decision and are considered to be a major determinant of an organisation's success or failure (Nutt & Wilson, 2010; March & Simon, 1958; Drucker, 1974; Simon, 1987; Chia, 1994, McLaughlin, 1995). As such, many notable theorists consider decision-making to be a core managerial function (Litchfield, 1956; Janis, 1972; Janis & Mann, 1979; Simon, 1979; Cooke & Slack, 1984; Brunsson, 1990; Cyert & March, 1992; Drucker, 1981; Hoy & Tarter, 2010; Larrick, 2016).

This section on decision-making teases apart the various strands of existing research to gain a deeper understanding of the significance and importance of decisions within a managerial and organisational context. The following questions were asked of the literature:

- *What* is a decision?
- *What* influences a decision?
- *What* types of decisions are made?
- *Who* makes a decision?
- *How* are decisions made?
- *In what ways* are decisions created?

### 2.3.1  What is a decision?

Given its everyday use, it is not surprising that the concept of 'a decision' is often taken for granted (Meyer, 1990; Salaman, 2001). There have been various attempts to provide an accurate definition and explanation of managerial decision-making (Cray et al., 1988; Hickson et al., 1986; Mitchell & Beach, 1990). The concept of 'a decision' has taken a number of different forms, demonstrating its diverse and multifaceted nature.

In its most basic definition, a decision is seen as a series of choices (Staw, 1981; Simon, 1960; Nutt, 1984, 1987; Baron, 1998), a reasoned choice among alternatives (Mallach, 1994), a result of a process (Eisenhardt & Zbaracki, 1992), and as involving both individual and social phenomena (Shull et al., 1970). Others recognise a decision as a broad and

potentially unconscious series of separate decision activities that are longitudinal in nature (Mintzberg et al., 1990) as a decision is viewed as "a moment, in an ongoing process of evaluating alternatives for meeting an objective" (Harrison, 1999:46). It has also been called the science of muddling through (Lindblom, 1959), but, in contrast, is also viewed as a deliberate, satisfying, rational choice that is consistent with the values, alternatives and information that were analysed in reaching it (Simon, 1960). While some decision-makers believe their choices are based on facts, information and evidence, many rely on personal experience, intuition and gut feelings (Pfeffer & Sutton, 2006). Some suggest that decisions are a system of rules (March, 1994; Levitt & March, 1988) or a commitment based upon decision-makers' experiences and expectations, which are projected against their goals or objectives (Harrison, 1999; Leigh, 1983), or show a willingness to act with a specific commitment to action (Mintzberg et al., 1976; Butler 1991; Yates & Tschirhart, 2006) – further implying that action is a consequence of a decision (Staw, 1981).

Fundamentally, the literature demonstrates the vast and diverse definitions of decision-making, and provides a glimpse into how traditions are influenced through the philosophical stance of the researcher. This study proposes that viewing a decision as a system would be beneficial and is aligned to the aims of this research, which seeks to consider the 'whole'. Firstly, parts of the organisation operate within continual tensions: on the one hand, organisations embody established ways of thinking, policies and practices, informed through experiences, standards, and procedures; on the other hand, organisations need to innovate, learn, adapt and change. Decisions in organisations are comparable to dynamic homeostasis, enabling a balance between stability and growth with constant disturbances that influence their balance (Reynolds & Holwell, 2010; Hoverstadt, 2008). Thus, life in organisations is unavoidably unruly and more uncertain than prescribed strategies, structures, systems and processes imply. And yet the dominant organisational management research is still rooted within the mainstream presumption of rationality, certainty, predictability and control. Inherent in this position is the need to build consensus and the consideration of choices and outcomes for the purpose of achieving corporate and operational objectives.

### 2.3.2 What influences decision-making?

Prior research on decision-making builds upon insights arising from an immense and diverse range of literature that has developed simultaneously across a multitude of disciplines, each trying to understand decisions, albeit for different purposes and from

different perspectives.  There have been many notable studies that have shaped the understanding of organisational decision-making from several perspectives and settings.

The term 'decision-making' was introduced into the business world by Chester Barnard, and later theorists James March (1978), Herbert Simon (1959) and Henry Mintzberg (1976), who laid the foundation for the study of managerial decision-making (Buchanan & O'Connell, 2006).  Since then, there have been considerable changes in how decision-making is studied and the body of literature is contradictory and controversial, with many theoretical tensions.  Decision-making theories and models arise from mathematics, statistics, economics, psychology and management.  Research differentiates between individual, group, multi-group and organisations.  Decision-making research is therefore multidisciplinary in nature (Harrison, 1999; Kriger & Barnes, 1992; Brunsson, 1990; Cyert & March, 1963; Hickson, 1995; Power & Sharda, 2007; Power et al., 2015).

To summarise the extensive body of literature on decision-making would be an overwhelming and time-consuming task.  Instead, Table 2 provides an illustration of the diverse range of literature concerning organisational decision-making, according to four strands of research:

1. The organisational decision-maker (Individual factors)
2. The organisation (Internal social factors)
3. The organisation's environment (External factors)
4. The decision context (Decision specifics)

There are, inevitability, areas of overlap as significant contributors, theories and models are presented under several headings for the purpose of illuminating areas of interest within the previous research.

### 2.3.3   What types of decisions are made?

No two situations that call for a decision in an organisation are ever identical; therefore, decisions are never the same: they vary depending on circumstances, importance, events, involvements and many other factors (French & Papamichail, 2003).

Literature has provided many ways to categorise decisions (Osmani, 2016). Commonly, organisational decisions are classified according to their degree structure upon a continuum of: 1) highly structured (programmed), which are considered to be of a routine, repetitive

nature, for which systematic procedures have been devised, 2) semi-structured, and 3) highly unstructured (non-programmed), which are complex and deserve specific treatment (Mintzberg, 1973; Simon, 1965).

*Table 2: Organisational decision-making research*

| | | | |
|---|---|---|---|
| **Personal Factors** / **The Decision-maker** | | Personality & Characteristics | Slovic (1967); Taylor (1975); Johnson (1990); Johnson & Powell (1994); Erogul & Croxton (2010); Musso & Francioni (2012) |
| | | Motivation & personal interests | Barnard (1938); Simon (1957); March & Simon (1958); Cyert & March (1963); Weick, (1969) |
| | | Intuition | Simon (1987); Harper (1988); Mintzberg (1994); Khatri & Ng (2000); Dane & Pratt (2007); Klein (2015); Calabretta et al. (2016) |
| | | Experiences | Anderson (1974); Taylor (1975); Perkins & Rao (1990); Karlsson et al. (2005); Zsambok & Klein (2014) |
| | | Decision style | Janis & Mann (1977); Bass (1983); Hickson et al. (1986); Pate (1987); Hart (1992) |
| | | Cognitive & learning style | Messick & Fritzky (1963); Stanovich & West (1998, 2008); Baucells & Katsikopoulos (2015) |
| **The Organisation** / **Internal Social Factors** | | Role & structure | Simon (1960); Katz & Kahn (1966); Mintzberg (1972); Vroom & Yetton (1973); Child (1973, 2013); Pfeffer (1981); Brehmer & Hagafors (1986); Jaque (1989); Sniezek & Buckley (1995) |
| | | Power, politics & conflict | March (1962); Cyert & March (1963); Collins & Guetzkow (1964); Allison (1971); Pfeffer (1981); Butler (2002); Wilson, (1993); Pettigrew (2014) |
| | | Culture, values & beliefs | Hofstede (1980); Bell (2007); Scheepers et al. (2013) |
| | | Group Think, mind & models | Janis (1982); Maznevski (1994); Rose (2011) |
| | | Interactions | Buchanan & Huczynski (1997); Kugler et al. (2012) |
| | | Data & information, knowledge | Hogarth & Makridakis (1981); Schwenk (1984); Hogarth (1987); Stasser & Stewart (1992); Boisot (1998); Jehn & Mannix (2001) |
| | | Communication | Fisher & Ellis (1980); Hirokawa & Poole (1996) |
| | | Sensemaking | Weick (1979, 1995) |
| **Decision-specific** / **Context** / **External Factors** | | Industry conditions factors | Rajagopalan et al., (1993); Jarratt & Fayed (2001); Elbanna & Child (2007) |
| | | Uncertainty, complexity | Busemeyer (1993); Butler (2002); Fredrickson (1984) |
| | | Time, risk, complexity, politics | Butler et al. (1991), Hickson et al. (1974) |
| | | Motive Intuitive | Mintzberg, Raisinghani, and Theoret (1976); Fredrickson (1985); Jackson & Dutton (1988); Schneider & Meyer (1991); Papadakis, Kaloghirou & Itarelli (1999) |

Literature concerning tactical decisions, also known as 'administrative' decisions, relates to the management of organisational resources and resource allocation (Harmon, 1986; Brockmann, 2002). Tactical organisational decisions focus upon defined goals that support

strategic decisions; as such, they constitute an essential step between operational and strategic decisions. Studies are often focused upon shared mental models, expert teams, stress, team coordination, planning, information needs and decision systems, etc. (Converse, 1993; Dexter, 2005; Collyer & Malecki, 1998).

Literature has also categorised decisions according to their objectives, which are often discussed in terms of strategic objectives, tactical objectives and operational objectives (Anthony, 1965; Ackoff , 1974). Predominantly, organisational decision literature focuses upon strategic decisions that define and shape the purpose, objectives and direction of the organisation; thus, they are long term and typically made by senior management within the organisation (Hambrick & Snow, 1977; Fredrickson & Mitchell, 1984; Eisenhardt, 1999; Smith, 2014). Shephard and Rudd (2014) recently provided a literature review on the influence of context on the strategic decision-making process, which further emphasises the nature of strategic decisions as they are studied in uncertain, fast-paced contexts.

Operational decisions, however, are made by members of an organisation on a routine basis; they are repetitive decisions often intended to have an immediate effect. Operational decisions represent all levels of responsibility in the organisation. The boundaries between strategic (policy decisions, long term and non-routine), tactical (how to achieve policy, medium term) and operational (day-to-day decision and routine) factors are not distinct, yet literature categorises decisions according to their objectives or structure.

Literature has provided clear evidence that there are different types of organisational decisions; the type of decision is considered to be an important element, due to a decision's features and outcomes. Such distinctions are summarised within Table 3. A final distinction on what types of decisions are made concerns who makes a decision, which is discussed in the next sub-section.

*Table 3: Types of organisational decisions.*

| Strategic Decisions | Tactical Decisions | Operational Decisions |
|---|---|---|
| • Unique or very rare | • Periodic decisions | • Frequency |
| • Taken by top managers | • Middle managers | • First-line managers |
| • Unstructured | • Semi-structured | • Often structured |
| • Long term | • Medium term | • Short term |
| • Uncertainty conditions | • Risk conditions | • Certainty conditions |

### 2.3.4   Who makes a decision?

Decision-making within organisations occurs at all levels and within all units of the organisation (Lewis et al., 2000; Osmani, 2016), as indicated within Table 2. Yet, early research on decision-making started with a rational view of an individual decision-maker who gathered complete information in order to maximise a quantifiable outcome. However, the limitations of this perspective were gradually revealed as behavioural decision research acknowledged that an organisation's decisions are social, as decision-makers work together to come to a decision on behalf of the organisation. Thus, a decision-maker can make a decision alone, but not in isolation; they can make a decision with others, but not necessarily be the one who authorises the decision. The 'who' of decision-making is context specific; it is deemed to be the 'decision body'. The decision body can be an individual or a collective grouping of individuals (Cooke & Slack, 1991; Teale, 2003). Literature, whether individual, group or organisational, does contain considerable overlap and this is to be expected as a decision rarely occurs in isolation in practice.

There is a tendency in decision-making literature to dissociate the processes of decision-making from the people who make decisions, to 'de-humanise' them (Nutt & Wilson 2010; Hambrick & Mason, 1984). Within the context of this study, 'the manager' is viewed as 'a decision-maker'. Each manager is both a recipient and a creator of situations in which they make decisions (Nutt & Wilson, 2010; Weick, 1995). The concern within this study is the ways managers create organisational decisions.

Group decision-making within organisational and management studies is considered to be when two or more interacting and interdependent individuals come together to make a decision (Duffy, 1993; Laughlin, 1999; Shapira, 2002). There is a tendency within group decision-making to focus upon individual decision-maker preferences as inputs for group choice (Kameda, Tindale & Davis, 2003). A second tendency is to compare individual decision-making and group decision-making, with the assumption that group decision-making tends to be more accurate. Thus, research is focused upon effectiveness in terms of speed (Kelly & Karau, 1999), accuracy, information and knowledge sharing (Stasser & Titus, 1985; Gigone & Hastie, 2013; Halinski & Duxbury, 2015), attitudes, behaviours, preferences (Greitemeyer & Schulz-Hardt, 2003), multiple perspectives, shared mental models, power and politics, and consensus (Davis, 1996), etc.

Much of this literature fails to note the dynamic nature of the decision body, as the decision body is considered to be a static or passive collection of individuals or groups. There is, however, research that concentrates on the intrapersonal and interpersonal relationships of the groups, considering social interactions and the impact of change (Pownall, 2012). This results in a need to consider decision-makers' interactions, but more generally the link between the individual as well as their social context, the organisation. Literature has investigated how shared preferences are often given more weight in decision processes than group members with preferences that deviate from those of other members; group decisions often reflect a degree of 'sharedness' by the group (Kameda et al., 2003; Tindale & Kameda, 2000; Halinski & Duxbury, 2015). However, little research exists that seeks to explore meaning and understanding prior to a group consensus process.

*Table 4: Decision characteristics*

| | Normative | Descriptive | Prescriptive |
|---|---|---|---|
| **Purpose** | How people should decide with logical consistency | How and why people decide the way they do | Help people make good decisions Prepare people to decide |
| **Validity** | Theoretical adequacy | Empirical validity | Efficacy and usefulness |
| **Theoretical foundations** | Utility theory axioms | Cognitive sciences Psychology about beliefs and preferences | Normative and descriptive theories |
| **Implementation** | Analysis of alternatives Determining preferences | Prevention of systematic human errors in inference and decision-making | Processes and procedures End-to-end decision life cycle |
| | Theoretical stages | Experimental researchers | Applied analysts |
| | Mathematics Economics Statistics Computer Science Artificial Intelligence | Organisational Theory Behavioural Science Psychology | Organisational Theory Behavioural Science Psychology Sociology |
| **Key theories & Models** | Expected utility theory Subjective expected utility theory Bayes Theorem Multi-attribute utility | Prospect Theory Social Judgement Theory Satisfying Theory Behaviour Decision Theory Naturalistic Decision-making Theory Organisational Decision Behaviour | Analytic hierarchy process Value-focused thinking Real options |

### 2.3.5    How are decisions made?

Whilst decision research has exerted a wide impact on a number of disciplines, studies have traditionally followed one particular paradigm or theoretical perspective exclusively. Since the 1980s, the study of decision theories has often been discussed in terms of normative, descriptive or prescriptive decisions (Bell et al., 1988), each with their own underlying assumptions concerning the judgement capability of the decision-maker, level of certainty surrounding the decision-making context, and the purpose of the theory. Table 4 provides a summary of the assumptions and subject.

The following discussion presents a selective review of literature by discussing key work for each of the three steams, supporting the assumptions made in Table 4. This section then concludes with a rationalisation for the positioning of this research.

**Normative Theories**

Normative Decision Theory is represented by a family of theories reflecting the earliest decision research of Classical Decision-Making (CDM), often referred to as a theory of rational choice. The theories are positivist in nature, drawing upon statistical, mathematical and economic philosophies. The focus of normative theory is to discover how rational managers *should* make a decision. There is focus upon the decision event, and the outcomes of such decisions are based on statistics and probabilities.

In 1953, John von Neumann and Oskar Morgenstern proposed Expected Utility Theory, a mathematically complete set of principles which define 'rational behaviour' for the participants in a social economy, which derive from the general characteristics of that behaviour (Von Neumann and Morgenstern, 1953). Expected Utility Theory (EUT) is concerned with risky or uncertain prospects, through a comparison of expected utility values, i.e. the weighted sums obtained by adding the utility values of outcomes multiplied by their respective probabilities. An important extension of the Expected Utility Theory is the Subjective Expected Utility Theory (SEUT) proposed by Savage (1954). The main difference between the two is that the former uses objective probabilities, while the latter uses subjective probabilities. SEUT proposes that the decision-maker may be uncertain about whether the various outcomes (payoffs) will actually occur if the option is chosen (Zsambok & Klein 2014). An additional utility theory is known as Multi-Attribute Utility (MAU). It is based upon mathematical tools for evaluating and comparing alternatives to assist in decision-making about complex alternatives. Two normative constructs, utilities

and probabilities, underpin normative decision theories together with the following set of assumptions (Plous, 1993; Edwards, 1954; Beach, et al.,. 1997; Simon, 1955):

- The decision-maker is an economic person, who is informed, infinitely sensitive and rational.

- Decisions are based upon unlimited and complete information and decision-makers can efficiently utilise all of the available information. Thus, decisions are based on logical and known conclusions supported by clear or probable evidence.

- Decision-makers know all of the options available to them and the payoffs or consequences of these options.

- Preferences are invariant; that is, preferences between options are independent of the presence or absence of other options.

- The optimal course of action is obtained by decision-makers applying the appropriate calculations of expected utilities as they calculate the consequences of each alternative, ranking the consequences and finally making the optimal decision, i.e. maximising utility.

- The decision-maker acts in a world of certainty.

- Evaluations and decisions are guided by 'objective' and are 'observer independent'.

In many organisational and managerial situations it is desirable that managers make an accurate decision through a set of logical and reproducible rules and criteria in an objective manner. Whilst the strength of normative decision theory lies in the quantification of probabilities and outcomes, the assumptions do not reflect real organisational decisions made by managers, and a universal objective reality that can be quantified and calculated is not possible. However, normative decision theory does enhance understanding of organisational decision-making as it proposes how decisions should be made.

**Descriptive Theories**

During the mid-1980s, growing doubts and criticism of the applicability of classical decision theory led to a reframing of thought on decision theory and a new philosophical paradigm, referred to as '*naturalistic (or behavioural) decision-making*'. Such theories are descriptive in nature and depart from the rational, normative model of decision-making; they are concerned with how and why people think and act the way they do (rational and not rational) in real life rather than finding ideal decisions for any given situation.

Decision-making researchers tend to select decisions and choice opportunities (sorting alternatives) as their units of analysis; however this is a narrow interpretation of the ways that organisations, as groups and managers, make decisions (Nutt & Wilson, 2010).

Descriptive theories are concerned with the choices individuals make rather than providing a rational basis for making these choices; thus, the starting point for descriptive theories is often empirical experiments. Importantly, descriptive theories are not concerned with the quality or outcome of the decision; they do not attempt to modify, influence or moralise behaviour, but rather describe how individuals reach a decision.

Prospect Theory, introduced by Kahneman and Tversky (1979), is perhaps the most influential and most citied of the descriptive models. The theory concerns human judgement and decision-making under uncertainty and integrates insights from psychological research, in particular behavioural and cognitive psychology, into economic science. Prospect Theory includes two phases. In the first phase, a preliminary analysis of the prospects is made. In the second phase, the prospects are evaluated and a choice is made. Decision-makers perceive possible outcomes as gains and losses which can be manipulated through the formulation of a prospect. The theory also includes a value function and a decision weight function (Kahneman & Tversky, 1979). The central idea of Prospect Theory is that changes in gains or losses are relative to a reference point (Kahneman & Tverskey, 2000). Prospect Theory also expects preferences to depend on the framing of a problem, i.e. how decision-makers formulate the decision or problem. Additionally, Prospect Theory considers how individuals are inclined to simplify through heuristics and frames (Kahneman, et al., 1982).

Social Judgement Theory is grounded in the works of Brunswik (1956) and was later utilised by Hammond et al. (1965). Evolving over many years, the theory assesses key elements (cues) and a person's judgement which provides essential foundations for an individual and even social decision. The theory assumes that a person is aware of the presence of the cues and aggregates them with processes. Unlike Utility Theory or Prospect Theory, the future context does not play a central role.

Simon's (1955, 1959, 1979) Satisfying Theory claims that decision-makers do not necessarily choose the optimal alternative but rather an alternative that is good enough in order to satisfy the needs of a decision-maker. The option that first reaches an acceptable level is chosen. Simon received the Nobel Memorial Award in 1978 for his research on the

'decision-making process'; his central goal was to discover how human behaviour could be studied scientifically, explaining the nature and mechanism of the thought processes that people use in making decisions (Heames & Kalantari, 2010).

Organisational decision-making was firstly conceived as a descriptive/prescriptive theory of administrative activities found in new, 'modern' organisations. Chester Barnard (1939/1968) introduced the concept in one of the most influential books of the time, "The Functions of the Executive". Additionally, the work of Simon (1955, 1959, 1979), March (March & Simon, 1958; Cyert & March, 1963; March, 1994) and Shapira (2002) has been highly influential. Decision-makers are viewed within their organisational context and studies focus upon structured social norms that shape expectations and behaviours

In 1989, the Naturalistic Decision-making School emerged from a conference run by Gary Klein and colleagues. NDM is concerned with investigating and understanding decision-making in its natural context through descriptive realism (Klein, 1989, 2008, 2015; Pliske & Klein, 2003; Hoffman, 2007; Lipshitz et al., (2001); Zsambok & Klein 2014). In other words, NDM research investigates how experts use experience to make decisions in naturalistic environments (e.g. under time pressure, shifting conditions, unclear goals, degraded information and within team interactions). A common theme in NDM research is the role of expertise in decision-making, with a strong focus on context.

**Prescriptive Theories**

Prescriptive decision theories incorporate the insights gained from normative and descriptive theories for the purpose of investigating decision-making processes in real-world settings. Thus, prescriptive theories and models are focused towards helping managers make better decisions and improving the quality of the resulting decisions. There is a focus on what supports the decision-maker, with useful and effective decision aids (Brown & Vari, 1992). Therefore, prescriptive theories and models are evaluated by their pragmatic value.

The roots and assumptions of prescriptive theory are that decision-makers strive to do what is best when making decisions, whether for themselves or for the organisation (Beach and Connolly, 2005). Keeney (1992) stresses that, unlike normative and descriptive theories, the focus of prescriptive theories is to address one decision problem at a time. Prescriptive analysis is often focused upon individual and group settings and encourages

decision-makers to remain rational or at the very least aware of possible biases identified through descriptive theories (Bell et al., 1988; Kleindorfer et al., 1993)

There is a tendency to use mathematical modelling and quantitative analysis to investigate a decision within a prescriptive approach. This will be illustrated through a brief discussion on the key prescriptive theories. Firstly, Analytic Hierarchy Process (AHP) is a structure technique developed in the 1970s for organising and analysing complex decisions (Saaty, 1987, 1988, 1990). AHP assists decision-makers by providing a comprehensive and rational framework for structuring a decision problem. Elements of the decision are quantified, related to goals and used for evaluating alternative solutions. Thus, AHP considers the role of information and judgements when performing evaluations.

Value-focused thinking (Keeney, 1996; Keeney., 2009) is an approach that describes and illustrates concepts and procedures for creating better alternatives for a decision, identifying decision opportunities through a significant emphasis on making values explicit. This approach is part of a movement from an alternative-focused approach to a value-focused approach embraced by behavioural decision theory, which considers decision-making to be inherently adaptive and constructive (Carenini & Poole, 2002).

Danielson et al (2009) has highlighted the need for decision analysis tools that provide support for decision-makers within the earlier stages of the decision-making process. This current concern is built upon issues raised by Tversky and Kahneman (1986), who review how the framing of decisions or a problem will impact a person's preferences and choices.

### 2.3.6    In what way are decisions created?

Decision literature has assumed that decision alternatives exist and appears to imply that they are readily constructed. However, Simon (2013:126) observes that "the classical view of rationality provides no explanation of where alternative courses of action originate; it simply presents them as a free gift to the decision-makers". This study is concerned with the construction and analysis of alternatives.

Conventional studies of decision-making, both experimental and empirical, have customarily concentrated on the act or processes of decision-making as if they were discrete events and, in the process, have tended to overlook the idea of a decision as an interlocking concept. The decoupling of decisions and actions, decisions and sensemaking, and decisions in private and social contexts suggests that decision-making is a marginal

phenomenon that can be studied in isolation. Further still, decision-making research needs to identify and explicate relationships that are not obvious to managers, as examining these links is likely to have considerable practical impact as "hidden layers of covert issues and interests which govern all that happens" (Hickson 1995: xv) are exposed.

March (1978) observes that the way decisions are talked about is not necessarily the way decisions are made. This raises the question: Does the decision process really matter? What if the way a decision is made is what is central to understanding rather than the process, instead of studying the decisions itself, or the characteristics of a decision-maker's or decision-making process? What if the key to understanding is a combination between the construing and analysis of alternatives and the ways that a decision is made? Will this lead to an in-depth understanding of why organisational decisions are made in the way that they are? Is it possible to investigate the ways in which individuals and organisations fit together when making an organisational decision?

Many managers are often unaware of the specific ways in which their worldviews and actions are limited as connections and patterns of sense become fixed, hidden and even lost through routinised actions, as well as taken-for-granted and unchallenged assumptions (March, 1978; Weick, 1995; Patriotta , 2011). A failure to recognise such limitations can rob managers of an opportunity, a choice and a chance for change, with further consequences upon groups and the organisation, as their ability to think, learn, act, react, change and design solutions becomes restricted. There is a need to recognise that decisions are created by individuals through their actions (Blumer, 1969, Schutz, 1972; Mead, 1962).

Mintzberg and Westley (2001) discuss three ways that a decision is made, as summarised in Table 5, concluding that organisations should embrace the 'thinking first' model of decision-making with a 'seeing first' and an 'action first' perspective.

The thinking first perspective is associated with traditional procedural approaches that are linear and categorical in nature. Conventional frameworks are implemented that assess the pros and cons of alternatives and causes and effects as decision-makers look to define the situation and then form a response. This approach can be useful to decision-makers as there is clarity regarding what the decision is about, when the data and information that inform decision-making are reliable, and alternatives are clearly defined and justified (Mintzberg and Westley, 2001). However, this structured, more formalised approach can sometimes reduce the opportunity for exploration, imagining and visioning.

*Table 5: Ways decisions are created*

| Thinking first | Seeing first | | Doing first |
|---|---|---|---|
| Science<br>Planning, programming<br>The verbal<br>Facts<br>Choice<br>The issue is clear<br>The data is reliable<br>The context is structured | Art<br>Visioning, imagining<br>The visual<br>Ideals<br>Interactions<br>Many elements have to be combined into creative solutions<br>Commitment to those solutions is key | | Craft<br>Venturing, learning<br>The visceral<br>Experiences<br>Interpretation<br>The situation is novel and confusing<br>A few simple relationship rules can help people move forward |
| **Procedural Rationality** | **Insight** | **Intuition** | **Sensemaking** |
| Conscious, highly intentional effort to align selection with a goal<br><br>Simon (1960) – Intelligence, design & choice | Outcome of restructuring one mental representation of a problem<br><br>A deliberate study of change in a mental state gained through restructuring | Subconscious synthesis of previous learning<br><br>A non-conscious process of that synthesis of stimuli into a schema or framework | Engagement of others in testing interpretations<br><br>Weick, Sutcliffe and Obstfeld (2005). A social activity in which meaning, or understanding, is derived through cycles of interpretation and action |

The seeing first perspective suggests that decisions may be driven as much by what is seen as by what is thought; thus, understanding can be visual as well as conceptual. The seeing first approach encourages decision-makers to ask questions, as they each see what they and others mean and what people are actually saying. It invites further interpretation and decision-makers become playful and creative. The seeing first approach does not focus upon the decision problem, the solution, or the need for agreement, but it instead embraces a search for alternatives (Laroche, 1995; Mintzberg & Westley, 2001)

The doing first perspective considers a continuous flow of action punctuated by moments of interpretation and evaluation, picturing organisational life as a flow of intertwined processes rather than a sum of sequential decision-making steps (Laroche, 1995; Brunsson, 1985, 1982, 2007; Starbuck, 1983; Weick, 1987). This is because individuals respond to one another intuitively and viscerally, letting out concerns held back in conversation.

### 2.3.7 Summary of decision-making literature

The literature review has provided a broad overview of decision-making literature within a managerial and organisational context from a variety of perspectives in order to tease apart the various strands of prior research that have focused upon:

- *What* is a decision?
- *What* influences a decision?
- *What* types of decision?
- *Who* makes a decision?
- *How* are decisions made?
- In what *ways* are decisions created?

This study argues for a perspective that does not focus directly upon the 'what', 'how' or 'who' of organisational decision-making, which should not be a primary concern if we are to gain an in-depth understanding of organisational decisions. Instead, the '*ways'* that meaning is created, the '*ways'* that managers make sense and the '*ways'* they find themselves acting and interacting is central to the 'ways' in which managers make decisions. Additionally, there is a focus upon the 'ways' decision-makers construe their alternatives or choices. After all, alternatives and choices are not a free gift to decision-makers (Simon, 2013). They are created through their private and social context.

## 2.4 SENSEMAKING

To support the further contextualisation of the empirical research, this section introduces the concept of sensemaking. Importantly, a sensemaking perspective on organisational decisions is useful as it can shed light on the ways that decisions are made in organisations. Such a perspective moves attention from isolated events to the interpretation of an ongoing world that is co-created by managerial decision-makers through their subjective ongoing flows of experience, to focus upon finding out what the decision is really about, not what the decision is (Weick, 1995; Drucker, 1974; Weick, et al., 2005). A sensemaking perspective borrows insights from social psychology in order to understand organisational behaviours, viewing an organisation as a system, rather than a hierarchical structure of deliberate planning.

### 2.4.1 Sense and making sense concepts

It seems practical to start with a discussion on a core concept, 'Sense'. The Collins Dictionary (2014) defines sense as "a faculty by which the body perceives an external stimulus; one of the faculties of sight, smell, hearing, taste, and touch; a feeling; intuitive awareness of or sensitivity to the presence or importance of something". Thus, sense has two dimensions; the first is the 'sensing' of an element in an environment, through sensory organs that absorb and gather external stimuli which are fed into an individual's internal response system. The internal response system allows an individual to become aware of something external. Thus, sensing is an interaction – either conscious or unconscious – between an individual's inner and outer worlds. The second dimension refers to a process of making sense of the element, the creation of a plausible and workable interpretation (Gioia and Chittipeddi, 1991; Ericson, 2010). Accordingly, it is the second dimension of 'making sense' that is the focus of this research; this process within managerial and organisational research is commonly associated with a process of organising (Daft & Weick, 1984; Starbuck & Milliken, 1988; Brown, et al., 2008). Through such a concept, it is possible to see that making sense is a process of dealing with the situations of life, routine or novel (Reinhard, 2010).

The concept of sensemaking quite literately means 'the making of sense'. However, despite this literal meaning, it is studied and defined in different ways. In a recent publication by Sandberg and Tsoukas (2015), a critical review of the sensemaking perspective within organisational studies is provided that captures the historical significance of 'sensemaking',

and a conceptual path is developed that highlights the different layers of meaning, tensions and contradictions on what sensemaking is and how it should be studied.

Within a large majority of literature the processes of sensemaking have become synonymous with processes of interpretation (Weick, 1995; Sandberg and Tsoukas, 2015). Interpretation connotes an activity but it is just as likely to describe a product or an outcome, something that is discovered, whilst sensemaking is viewed as an activity or process that addresses incipient puzzles at an earlier, more tentative stage than interpretation. Sensemaking is a discursive processes of constructing by which managers in an organisation generate what they interpret (March & Olsen, 1976; Daft & Weick, 1984; Weick 1995; Gephart, 1993; Huber & Daft, 1987).

### 2.4.2 Sensemaking perspectives

Organisational research has, over the years, shown an interest in managerial sensemaking to understand how managers approach, interpret and give meaning to their environment (Daft & Weick, 1984; Gioia & Chittipeddi, 1991; Weick, 1995; Gioia & Thomas, 1996; Abrahamsen, Henneberg, & Naudé, 2012; Colville & Pye, 2010; Mattsson, Corsaro & Ramos, 2015; Lundgren-Henriskson & Kock, 2016). Literature in the sensemaking field has examined how sense is made in organisations (Clark & Geppert, 2011; Hernes & Maitlis, 2010a; Brown et al., 2015; Abolafia , 2010; Cooren et al., 2011), as well as the impact of sensemaking on a variety of key organisational processes including strategic change and decision-making (Gioia & Thomas, 1996; Rerup & Feldman, 2011; Maitlis & Sonenshein, 2010, Steigenberger, 2015; Balogun et al., 2016), innovation and creativity (Drazin, Glynn & Kazanjian, 1999; Hill & Levenhagen, 1995), organisational learning (Christianson, et al., 2009; Gephart, 1993; Weick, 1988, 1991, 1993), and the characteristics and influencing factors upon the process (Maitlis & Christianson, 2014; Sandberg & Tsoukas, 2015; Weick, 1995). The fragmented body of literature regarding sensemaking tends to focus upon the sensemaking process, producing either a very 'focused' set of observations, which is often simplified beyond practical use, or a very rich but 'loose' description of the content of sensemaking.

Sandberg and Tsoukas (2015:S12) further summarised the major constituents of the sensemaking perspective when they undertook a review of the available literature, clarifying the "key concepts used, mapping out the empirical topics researched, summarising key findings, and offering suggestions for further research". This is summarised in Table 7.

*Table 6: The major constituents of the sensemaking perspective*

| Events that trigger sensemaking | | Processes of sensemaking efforts | |
|---|---|---|---|
| Major planned events | | Creation | |
| Major unplanned events | | Interpretation | |
| Minor planned events | | Enactment | |
| Minor unplanned events | | | |
| Hybrids of events | | | |
| **Outcomes of sensemaking** | | **Factors influencing sensemaking** | |
| Restored sense | | Contexts | Emotion |
| Restored action | | Language | Politics |
| Non-sense | | Identity | Technology |
| No restored action | | Cognitive frames | |

Source: Sandberg and Tsoukas (2015)

The central concern of sensemaking is to understand how individuals construct meaning and reality (Choo, 1996). A shared view within this literature is that, when faced with uncertainty, individuals are assumed to draw on earlier patterns of actions, as well as similar events in the past, in order to act and interact (Tsoukas & Chia, 2002; Weick, 1995; Weick et al., 2005). Despite the complex and fragmented nature of sensemaking literature, three authors have provided a significant and influential impact, each with their own perspectives and background:

1. Brenda Dervin uses the labels 'Sense-Making' and 'sense-making' and focuses upon individual sensemaking and communication.
2. Gary Klein also uses the label 'sensemaking' within the field of naturalistic decision-making with a focus upon situational awareness.
3. Karl Weick also uses the label 'sensemaking'. His work is the most cited within literature on sensemaking and positions sensemaking as a social process that occurs between people as meaning is negotiated, contested and mutually co-constructed within organisational research.

It was noted during the literature review that authors used the terms 'sensemaking', 'Sense-Making' and 'sense-making' in a disparate manner; for example, Albu and Wehmeier (2013) refer to sense-making in reference to Weick's 'sensemaking' perspective.

### 2.4.3 Weick's articulation of sensemaking

Weick's (1995) Organisational Sensemaking perspective encompasses a vast array of literatures and theoretical insights that draw from various sources of work by James

(1890/1950), Dewey (1910), Mead (1934), Festinger (1957), Schutz (1967), Garfinkel (1967) and Blumer (1969).  The central focus of sensemaking is the construction of reality and its consequences; the perspective derives from the schools of thought of pragmatism and symbolic interactionism, which can be considered the "unofficial theory of sensemaking" (Weick, 1995:41).  The ontological differences evident in Weick's sensemaking perspective have been discussed by a number of researchers (Mills et al., 2010; Maitlis and Christianson, 2014).  Sensemaking is regarded as both a cognitive process in the heads of individuals aligned to constructivism whilst also drawing upon the social constructionist interpretive school of thought of the 1960s as conversational and social practices are examined (Berger & Luckmann, 1967; Burrell & Morgan, 1979; Gioia & Chittipeddi, 1991; Gephart, 1993; Fellows & Liu, 2016).  In addition, Weick's contributions have phenomenological views, a system-thinking attitude tied together from various strands of social and psychological theories.

A Weickian Theory of Organisational Sensemaking is adopted within this study as a perspective of exploring the ways people make sense of an organisational decision, and ways that individuals and groups give meaning to what is happening through interactions with each other.  Through such a perspective the organisation is viewed as a number of sensemaking systems; thus, the organisational is the social context in which individuals 'make sense' of their environment and their roles.  To engage in sensemaking is to construct, filter and frame; it begins with a basic question of whether it is possible to take things for granted.  If it is not possible to continue, then the question becomes, "Why is this so?" Weick (2005:409) states that "people look first for reasons that will enable them to resume the interrupted activity and stay in action.  These 'reasons' are pulled from frameworks such as institutional constraints, organisational premises, plans, expectations, acceptable justifications, and traditions inherited from predecessors".  The way these earlier sensemaking questions are resolved determines an individual's interpretations and decisions (Weick, 1995); it determines, "What next?".  Answers to such a question emerge from presumptions about the future and are simultaneous with action (Gioia & Chittipeddi, 1991; Gioia, Corley & Fabbri, 2002; Sonenshein, 2007).  Thus, the process of sensemaking is concerned with past, present and future moments.

Weick (1995) outlines seven distinguishing properties that set sensemaking apart from other explanatory processes; they provide analytic vocabularies to explore how individuals within a social context construct meaning about an ongoing flow of experience.  The seven

characteristics of sensemaking can be said to mobilise sensemaking (Weick, 2009) – resources such as interaction and conversation (social), clearer frames of reference (identity), relevant past experience (retrospect), neglected details in the current environment (cues), updating of impressions that have changed (ongoing), plausible stories of what could be happening (plausibility), and actions that clarify thinking (enactment). The following text describes each of these seven characteristics using Weick's (1995) for descriptions.

*Grounded in identity construction.* Identity is a central and fundamental pillar of sensemaking, as sensemaking is said to unfold from a frame of reference, filtered through issues of identity (Weick, 1995, 2009; Creed, Scully & Austin, 2002; Maitlis & Sonenshein, 2010; Sandberg & Tsoukas, 2015). From the Weickian perspective of sensemaking, who decision-makers think they are (identity) shapes what they enact and how they interpret the decision, which in turn affects what others think they are and how they interact (Weick, 1995; 2009; Mills, 2003). It is through such complex patterns of the interplay between image and identity that the identities of individuals, groups and organisations are stabilised or destabilised. As Weick (1979:195) states, "behaviour isn't goal-directed, it's goal interpreted". Thus, identity can be said to be an interpretive construct and is best understood through interpretive methods.

Identity at an individual level translates to "Who am I?" whereas, at an organisational level, the question of "Who are we?" is relevant. Identity is grounded in the multiple identities of the individual and group members, as they gain a sense of what is happening around them by asking, "What implications do these events have for who I will be, or what we will become?". Weick (1995, 2012) explains that sensemaking is shaped by three recipes:

1. How can I know what I think until I see what I say?
2. How can we know what we think until I see what we say?
3. How can I know who we are becoming until I see what they say and do with our actions?

*Retrospect.* Weick, Sutcliffe and Obstfeld (2005) point out that answers to the question "What's the story?" emerge in retrospect, through connections with past experience and dialogue among people who act on behalf of larger social units. Sensemaking emphasises that an individual looks back through a continuous flow of lived experience, chopping-up elements of time in order to infer meaning, to learn what they think, looking back over

what they said earlier (Weick, 1995). Thus, the retrospective property of sensemaking is concerned with how the individual reflects upon their own actions in order to discover what they have done (Weick, 1977).

This indicates to some degree that actions precede thought; such perceptions are not aligned with a rational and strategic decision-maker who plans out a course of action, considers their options and then proceeds accordingly. Instead, individuals reply on past experiences to interpret the present. As such, sensemaking is a comparative process, as individuals compare and search for similarities with past events and rely on these past events to make sense (Mills, 2010).

*Enactment of sensible environments.* The properties discussed previously refer to 'sensing', whilst the property of enactment refers to the activity of 'making' that which is sensed; it emphasises action. Perception is not a matter of information processes or representing a pre-given real world in the senses. This is objectivism. Enaction is a better alternative, one that sees the person and the world as intertwined and, as it were, replying to each other in a closed system (Butt & Warren, 2016).

Enactment means that individuals create their parts of their own environment, and inspect it when they say or do something. Therefore, an environment is viewed as invented rather than discovered (Weick, 1995). Enactment implies a world that is unfolding and challenges the traditionally held assumption that decisions are deliberate and rigorous evaluations of choice. Instead, emphasis is given to the ways that the decision-maker can partially influence their future environment as they discover their preference through action.

*Social.* Thinking of sensemaking as only an individual process will induce blind spots (Weick, 1995). Thus, the fourth property of sensemaking directs attention to a need to understand and explain how thinking and behaviour within organisations are influenced by complex social patterns of meaning (Weick, 1995; Morgan, 1980). The social context can be in face-to-face interactions, conversation, argument and dialogue with others (Weick, 1993), or in thinking through others' perspectives while deliberating individually (Blumer, 1969). The social property of sensemaking highlights that sensemaking cannot be neatly divided into individual, group and organisational levels (Dervin , 2003; Weick, 1995).

*Ongoing.* Sensemaking is a process; it is a continual process that has neither a beginning nor an end, as individuals are constantly making sense of what is happening around them.

Instead, individuals isolate moments and extract cues from those moments; they bracket the ongoing flow of experience (Schutz, 1967; Weick, 1995; Mills, 2010). There is therefore an assumption of fluidity rather than stability, an ongoing flow of transition and interaction (Kärreman & Alvesson, 2001, 2004; Tsoukas & Chia 2002). Thus, it is only ever possible to gain cross-sectional 'snapshots' of organisational actions, both sensemaking and decision-making. Further, as one of these moments is explored, the very moment itself may change, igniting new actions and directions for further exploration.

*Focused on and by extracted cues.* Research on how sensemaking is accomplished highlights the importance of noticing cues, creating interpretations and taking action (Daft & Weick, 1984; Rudolph et al., 2009; Thomas, Clark & Gioia, 1993; Weber & Glynn, 2006). Sensemaking starts with noticing and bracketing and this is guided by mental models acquired during life experiences. Weick (1995) further highlights that a sensemaking process involves three basic components: 1) cues, 2) frames and 3) the linking together of these cues and frames.

Cues shape sensemaking as it unfolds, since sensemaking is "focused on and by extracted cues" (Weick, 1995:49), in a process in which individuals "interpret and explain set of cues from their environments" (Maitlis, 2005:21). Cornelissen and Werner (2014) highlight that within management and organisational theory the concept of frame or framing has had a wide range of applications since it was first formulated by Burke (1937) and Bateson (1955/1972), and popularised by Goffman (1974). Weick (1995) conceptualised framing to explain the internal self-conscious and cognitive process of the individual sensemaker.

Frames come from past moments of socialisation, whereas cues come from the current moments of experiences (Weick, 1995). Cues are information from current environments; they trigger a drive to make sense of the situation. Frames are knowledge structures that involve rules and values and serve as a guide to understanding. When people create a relationship between frames and cues they create meaning through their connections. The frame alone and the cue alone do not make sense. What makes sense is a cue inside a frame (Weick, 1995). Meaning comes from the categories and frames from past experiences, the cues and labels from current events.

Of further importance from a research perspective is the understanding of what decision-makers notice (Starbuck & Milliken, 1988), as this becomes part of their decision. Yet the 'what' an individual singles out and embellishes as the content of the decision is only a

small part of it; there are many salient features driven by the context of the decision, the individual's disposition and their social interactions (Weick, 1995). Literature highlights the importance of understanding individuals' "frames of reference" through which they screen and filter the environment (March & Simon, 1958).

*Driven by plausibility rather than accuracy.* Sensemaking driven by plausibility rather than accuracy. This does not mean that accuracy and increasing precision are not important; it simply means that, for the most part, people are 'good enough perceivers' (Fiske, 1992; Kruglanski, 1989; Swann , 1984; Mills, 2010). They need only to know enough but no more. This means sufficiency and plausibility take precedence over accuracy. What is important is that an individual decides something; they "settle for plausibility, and move on" (Weick et al., 2005:419). This property may also contribute to the inconsistency of sensemaking among organisational members, reflecting a situation where different meanings may emerge as plausible for different groups within an organisation (Mills, 2010). This emphasises that sensemaking concerns 'how things are' rather 'than how they should be'.

Weick et al. (2005) suggest that sensemaking provides: 1) insight into a micro-mechanism that produces macro-change over time, 2) a reminder that individuals act their ways into belated understanding as action is always just ahead of cognition, 3) a need to focus on pre-decisional activities, 4) a description of how individuals alter their environments, 5) an opportunity to incorporate meaning and mind into organisational theory, 6) invokes explanations of organisation life, 7) an attention-based view, 8) a balance between anticipation and retrospective, 9) reinterpretations and 10) grounds to treat plausibility, incrementalism, improvisation and bounded rationality as sufficient. Organisational Sensemaking Theory suggests important capabilities of decision-makers that warrant attention (Weick et al., 2005). As a theory, sensemaking delineates a process by which organisational situations are framed by organisational enactors. However, literature has recently highlighted the need to pay attention not just to the process and content of unfolding experiences, but how sensemaking is accomplished (Tsouskas, 2014; Colville et al., 2015). Tsoukas and Chia (2002) argue against traditional approaches due to their privileges of stability, pointing out that change is the norm. Therefore, approaches are needed that place change centrally. Such perspectives reiterate that "that there are processes which create, maintain and dissolve social collectivities, that these processes constitute the work of organising, and that the ways in which these processes are

continuously executed, are the organisation" (Weick , 1969:1). "Sensemaking is not about truth and getting it right. Instead, it is about continued redrafting of an emerging story so that it becomes more, and is more resilient in the face of criticism" (Weick, 2009:141). "Decision-making is incidental, sensemaking is paramount" (Weick, 2009:194).

## 2.5    PERSONAL CONSTRUCT THEORY

So far, this chapter has discussed the context of organisational decisions, provided confirmation of the need to adopt sensemaking in order to shed light on the ways that decisions are made in organisations.  However, what has been lacking is how such decision-making and sensemaking can be captured at an individual and social level within the organisation.  In order to address this need, an original theory proposed by George Kelly in 1955 is presented.  Personal Construct Theory (PCT) is considered to be a "comprehensive theory of human experience and action" (Phillips, 2005:277) which provides an account of the experiences and construing of individuals within a social context; after all, the very nature of construing is the making of sense (Raskin, 2011; Epting and Paris, 2006; Butt and Burr, 2004). Kelly (1955) defined two theories: the basic theory is spelled out, rather like an engineer's blueprint, through a Fundamental Postulate that is further elaborated by 11 corollaries.  Then there is the Personal Construct Theory of emotion, discussing how individuals experience events.  It is the basic theory that is explored within this research.  Table 8 provides examples of a variety of research completed within the area of Personal Construct Theory.

*Table 7: PCT research summary*

| | |
|---|---|
| Employability, careers, mentoring | Anderson (1990); Fournier & Payne (1994); Parr & Neimeyer (1994); Brophy (1996); Lankau & Scandura (2002); Fugate, Kinicki & Ashforth (2004); Hill (2012) |
| Management, learning & organisational transition & change | Thomas & Harri-Augstein (1985); Coopman (1997); Frances (1995, 2008); Cassell et al. (2000); Lewis (2000); Cornelius (2000, 2002); Cornelius & Clapp (2004); Cornelius & Fransella (2005); Gray (2007) |
| Psychology of organisations | Katz & Kahn (1966); Jankowicz (1990); Raskin (2001); Shotter (2007) |
| Concept mapping & structures & decisions | Nenill et al. (1986); Hitt & Tyler (1991); Eden (1992); Reger & Huff (1993, 1994); Gengler et al. (1995); Hines (2000); Reynolds & Olson (2001); Tan & Gallupe (2006); Novak & Canas (2007); Eden & Ackermann (2002, 2004, 2010) |
| Information & Knowledge management & systems | Boose (1984, 1987); Shaw & Gaines (1987); Ford et al., (1991); Gaines & Shaw (1993); Kanellis et al. (1999); Tan & Hunter (2002) |
| Groups and Teams | Balnaves & Caputi (1993); Balvances, Caputi & Oades (2000); Clapp & Cornelius(2003); Robertson (2003) |

### 2.5.1   The Construct: a basic unit of analysis

Kelly's basic theory centres on the idea of the 'construct'. It is adopted as a basic unit of analysis (Mancuso & Adams-Weber, 1982; Fransella, 2016) which is embedded centrally within a construct-oriented approach. Through a person's constructs a porthole is created through which it is possible to understand their way of thinking (Fransella, 1989). Kelly (1955) dedicates a whole chapter to 'The nature of personal constructs'. However, despite such an emphasis, the term 'construct' is not given a single definition. Fransella (1989:2) provides a discussion entitled 'What is a personal construct?' which outlines what a construct is not; stating that "constructs are not rules and they are not concepts". Harry Procter (2009) elaborated that the construct should not be simplified to a basic unit in a reductionist manner; instead, it should be elevated in order to do justice to human activity. Butler (2009) outlined several properties of constructs, as discussed below.

In summary, a construct is a way of construing the world; constructs enable individuals to structure, interpret and anticipate events, and plot a course of behaviour and they are the basis of sensemaking (Kelly, 2003; Tan & Hunter, 2002; Benjafield, 2008). They are "a way in which some things are construed as being alike and yet different from others" (Kelly, 1963:105). They are "a microcosm of a person's world, a little aspect of the experience… [they provide] us with a gateway into their life and values" (Procter, 2009:38).

The rich discussion of the term 'construct' identifies two essential denotations that are core to PCT, both of which should be deemed to be equally important. The first sees the construct as being retrospective, as a construct represents how an individual organises their own constructed past experience. The second denotation is that a construct is projecting in nature: it allows the individual to represent and construct the future through looking forward with anticipation of things to come. Constructs are abstractions, a way in which an individual makes sense and imposes meaning. They are mental representations, a personal 'lens', a scheme for ordering experiences and formulating a unique way through the world of events (Kelly, 2003).

A construct is a "two-ended affair" (Bannister & Mair, 1968:25). It is through such opposites that a whole is created. Therefore, meaning does not exist unless the contrast involved is specified. Fransella (2004) comments that the bipolar nature of a construct is one of its most important properties; it is a way of discriminating, and it is this quality that sets a 'construct' apart from a 'concept'. "A concept is usually described as a basis for

grouping together certain things and distinguishing them from everything else" (Bannister & Mair, 1968:25). Constructs are therefore not ideas, or simple verbal labels imposed upon features of things, nor a way to provide categorisations of reality.

An individual's constructs are not discrete entities (Fransella; 2016), but are organised into systems of personal constructs (frames of reference) which direct the individual's attention and action. Such systems are ordered, arranged and linked; they are "transparent patterns or templates which he creates and then attempts to fit over the realities of which the world is composed" (Kelly, 2003:7). This system is hierarchical in nature, and a procedure of 'laddering' (Hinkle, 1965) provides the ability for the individual to spell out the ways in which they construct their world at higher and higher levels of abstraction. A high-level construct is one that is readily expressed in socially effective symbols, whose alternatives are readily accessible. At the lowest level is 'preverbal' construing. "A preverbal construct is one which continues to be used, even though it has no consistent word symbol" (Kelly, 2003:340). They can be described as implicit or automatic; they develop outside a person's awareness and can account for irrational reactions to events (Fransella, 2016).

Kelly emphasises that human activity is driven by the desire to control the environment and anticipate events. "Constructs are the controls that one places upon life" (Kelly, 1955:126); they liberate and restrict individuals as they determine the range of options open to them. An individual can move direction within their construct system and they can reconstrue, elaborating and further defining their personal construction system. However, individuals usually do things the way they have done them before or the way others appear to do them (Kelly, 1970). Kelly's notion of constructs and the ongoing process of meaning-making precludes it from being a typology or categorisation system of personality traits (Benjafield, 2008).

### 2.5.2    The basic theory

Kelly's (1955) basic theory was called role theory, but underwent revision to become role construct theory and is today referred to as Personal Construct Psychology and Personal Construct Theory (PCT). Although PCT has similarities with both cognitive psychology and humanistic psychology, it is unique (Benjafield, 2008) and reconceptualises a wide range of psychological problems (Adams-Weber, 1979). Personal Construct Theory (PCT) can be better understood in the words of Kelly (2003:7) himself: "We start with a person… societies can wait… we are talking about that person as an event". Such words introduce a

perspective in which the individual is at the centre; they are an active player in their environment. Moreover, Kelly (1955) does something unique and turns PCT inside out as he states that the aspirations of scientists are essentially the aspirations of all. PCT is a theory of the person as an active inquisitor who performs experiments, putting their beliefs, perceptions and interpretations to the test. Such theories are viewed as constructs, held within personal construct systems. In addition, as sensemaking and learning are ongoing iterative experiential processes, there is no notion of developmental stages (Epting and Paris, 2006). Further, there is no notion of or separate concern with motivation (Kelly, 1955, 1963; Jankowicz, 1987; Butt & Burr, 2004; Epting & Paris, 2006; Benjafield, 2008).

Kelly (1955) devised a Fundamental Postulate that forms the core of PCT, stating that the postulate is not a dogmatic idea but rather a thought-provoking one: "a person's processes are psychologically channelised by the ways in which he anticipates events" (Kelly, 1995:46). He further explained that a person gains a new outlook from their experiences as each experience is itself an event and, being an event, requires the person to construe meaning in order to make sense out of it. PCT opens a space for interpretation, meaning and sensemaking, highlighting a need to interpret events in terms of the person's constructions and psychological variables. This draws attention to the fact that it is the person that defines the situation, and the physical characteristics of the situation are not relevant in themselves, but only with respect to their meaning to the person (Kelly, 1955).

The Fundamental Postulate is further supported by 11 corollaries which can be represented as three groupings for the purpose of this research; the first is considered with the process of construing, the second is the content and structure of an individual's construct system, and the third is the social aspect of individual constructing.

### 2.5.3　The process of construing

This section draws upon the desirability of uncovering an individual's process of construing, drawing attention to their own 'unique ways' of construing and anticipating. In line with Weick's (1995) theory of Organisational Sensemaking, Kelly's (1955) Fundamental Postulate acknowledges that each individual will employ their own personal lens to anticipate reality (The Individuality Corollary). Further highlighting the importance of meaningful lived experience and the attribute of retrospective processing. It is through the search for repeated themes, which is built upon past experience (The Experience Corollary), that a person's construction system develops as different events occur (The

Construction Corollary), as they anticipate events by construing their replications. Individuals choose between alternatives through bipolar constructs (The Choice Corollary). Furthermore, the individual is not always aware of their capacity for this intervention in their behaviour processing and experimentation and, finally, the process of constructing is only limited by the permeability of the construct itself (The Modulation Corollary) and driven by plausibility rather than accuracy.

*Construction Corollary: an ongoing role.* Construing is deemed to be an active process known simply as construction, a form of motion (Bannister & Fransella, 2013). Kelly (1955: 68) describes this notion through the use of the concept 'role', described as "an ongoing pattern of behaviour". It is through this that all individuals are engaged in a cyclical process of construing as they make sense of and place interpretations upon events.

The *Experience Corollary*, together with the Fundamental Postulate, brings into focus how an individual's unique constructions of events is shaped by their experience, but also how it is possible that an individual can construe the same event from different perspectives. Past events provide windows of anticipation for the future, influenced by today's context and constructions of today's interpretations. Individuals look through time at their experiences and make anticipations based on interpretations of their past events as they search for recurrent themes in order to provide meaning. Such repeated themes become working hypotheses, put to the test through experience, revised whenever something unexpected occurs and duly reconstructed. This draws attention to a necessary condition of the Kelly (1955) Construction Corollary, in that construing starts with earlier knowledge, a pre-existing schema (Neisser, 1976). Kelly (1955) further emphasised that the amount of an individual's experiences is not measured by the number of events with which they collide, but by the investments they has make in their anticipations and the revisions of their constructions that have followed upon their facing up to consequences. It is not what happens around an individual that makes that person experienced. It is the successive construing and reconstruing of what happens, as it happens, that enriches their life experiences. The continuing construction of experience will change a person's choices, as PCT considers that a person is not obeying a rule but rather making a choice based on past experience.

The *Choice Corollary* explains how a person finds an individual way though events. The construing process that enables individuals to find their own way through events, making

sense of their experiences, is further elaborated through Kelly's (1955) Choice Corollary. This corollary focuses upon the directionality of behaviour, through their personal choices. An individual's constructs provide alternatives and routes that channel individual action, further suggesting that individuals choose the paths that will enhance their understanding of the world; in other words, those that provide clearer insight (Kelly, 1955). Kelly states that individuals make elaborative choices that provide a better position from which to anticipate future events. However, although individuals should make the elaborative choice, they do not always do so. It is a goal, not a given. Thus, individuals do not choose between logical alternative, but between the alternatives that they see as open to them.

*Modulation Corollary.* The process of choice lies at the centre of the development of the individual's construction system. However, the Modulation Corollary measures how much individuals can adapt or adjust to new experiences. Kelly (1955) asserts that, if an individual's constructs are too rigid or too impermeable, then they are not capable of change, no matter what their experiences tell them. The construct system should be able to cope successfully with new experiences, through adoption; this is based upon a basic principle in system design called the principle of requisite variety, within the Kellian view: if a person's construct system can change, 'adapt', due to it being permeable enough for change to take place, then that person will not become stuck within their own circumstances – they can change. Their experiences and their choices provide the possibility to adapt, to reconstruct, improving their anticipation of the future through reconstruction. A construct that is permeable is one that has a good degree of elasticity or resilience and therefore the capacity to encompass new events: it "takes life in its stride" (Kelly 1955:81). Such constructs allow individuals to create new constructs or change or rearrange old ones, thus creating a new experience. By contrast, an impermeable construct is one that rejects new events purely on the basis of their newness. The individual remains preoccupied with old constructs exclusively frozen in the past. This type of individual can only perceive 'more of the same', and hence must exclude all new experiences that the world might offer him or her.

### 2.5.4 The content and structure of an individual's construct system

An individual's personal construct systems require a structure in order to be effective at handling events. Kelly (1955) emphasises that individuals construe the world using dichotomous, bipolar constructs (The Dichotomy Corollary) that are organised in a hierarchical fashion (The Organisational Corollary), and that such systems do not have to

be entirely logical; they are in flux and contain inconsistences (The Fragmentation Corollary). Each system has a particular focus, an area of usefulness to which it can be applied, and it has a range of convenience (The Range Corollary). Through a consideration of both the content and the structure of an individual's personal constructs, which are their internal ideas or the theories they draw, it is possible to conceptualise what drives their sensemaking.

*Dichotomy Corollary.* According to Kelly (1955:50), meaning comes from contrasts and construing involves "abstractive sensemaking" and the Dichotomy Corollary asserts that "A person's construction system is composed of a finite number of dichotomous constructs" (Kelly 1955: 59). Each construct is assumed to represent a single bipolar distinction, for example, strategic – operational. Each event is viewed through such dichotomous reference axes whereby the individual isolates three salient reference points and notices ways in which two of these reference points share a similarity that differentiates them from the third (Kelly 1955). Capturing such distinctions provides the individual with the capability to explicitly define distinctions and reflect upon their experiences, creating meaning which will inform further sensemaking.

*Range Corollary* relates to the boundary of effectiveness of a person's constructs. This corollary is linked to the Dichotomy Corollary as there is an assertion that constructs are bipolar and are useful for those things for which they were specifically developed. Therefore, constructs do not have universal utility; they are limited to a particular range of convenience. That is, they are not relevant to all situations (Kelly, 1955). Thus, outside of this range, an event is not recognisable. Kelly states that, in laying down this assumption, "we are departing from the position of classical logic… we suspect that this comes nearer [to] representing the way people actually think" (Kelly 1991:61). It follows that each personal construct has a limited range of convenience which, by definition, comprises "all those things to which the user would find its application useful" (Kelly, 1955:137). While the range can be limited, it can also be extended. The more differentiated a system, the greater its overall predictive capacity (range of convenience) in terms of the variety of events that can be anticipated within its framework (Kelly, 1955). Bieri (1955) referred to the level of differentiation among an individual's personal constructs as cognitive complexity. He hypothesised that "the greater the degree of differentiation among constructs, the greater will be the predictive power of the individual" (Bieri 1955: 263).

In *Organisational Corollary* constructs are organised patterns of understanding. As individuals organise, construe and build their systems, they form processes; actions then become a reinforcing process. Thus, "each person characteristically evolves, for his convenience in anticipating events, a construction system embracing ordinal relationships between constructs" (Kelly, 1955: 56). This further reinforces existing patterns of understanding and the generalised tendency for people to respond routinely and habitually to the situations that they face as they makes sense of things in a particular way. It is therefore more likely that they will to continue to make sense in similar ways going forward. Such patterns and structures, like the person, are in motion; they are not stored, but created and recreated and can be changed, if only incrementally. Thus, Kelly (1955) views an individual's construct systems as a way of organising their own unique experiences. It defines how an individual conducts themselves and provides the observer with a glimpse into the individual's internal world. Embedded within the corollary is a discussion on how personal constructs are thought to be organised in terms of superordinate and subordinate constructs (the Organisational Corollary). Superordinate constructs are those deeper, underlying constructs that are meaningful to the way the individual lives their life, and often represent values toward which the individual strives. Bannister (1970) describes this hierarchy of constructs as a pyramid, in which the superordinate constructs are at the top of the pyramid, with subordinate constructs progressing down the pyramid in order of specificity.

*Fragmentation Corollary.* There are systems of alternatives. Kelly (1955) believed that within a person's construct system there might be some constructs that are incompatible, even though they coexist within the overall pattern. This is explained within the Fragmentation Corollary which is, in part, a derivative of the Modulation Corollary. This further suggests that a person may employ a variety of constructs that are incompatible with each other and therefore the person may appear to be inconsistent. These kinds of constructs are used to tolerate subordinate inconsistencies without damaging our overall construct system and allow the person to adopt different roles depending upon their circumstance. Therefore, conclusions about the 'same' event can be drawn from different levels which may not be consistent with each other (Bannister & Fransella, 1986:16).

### 2.5.5   The social aspect of individual constructing

This section seeks to consider the social embeddedness of construing efforts, exploring the importance of the private idiosyncratic world of individuals, whilst also simultaneously

considering how this is embedded within social constructing network support through relational relationships. More practically, it explores how individuals understand each other's differences, discovering the unique and private constructs that make that person tick (Individuality Corollary), whilst also exploring the extent to which constructs are shared by other individuals (Commonality Corollary) and, much more importantly, the extent to which a group of individuals can negotiate understanding as they each try the other's constructs on for size (Sociality Corollary) through the development of role relationships (Kelly, 1955, 1970; Jankowicz, 2001; Adams-Webber, 2003).

The *Individuality Corollary* states that people live in unique, experimental worlds. The prior corollaries emphasise that an individual's personal construct system is uniquely based upon that individual's prior experiences. As such, each individual's constructions of reality are different, and so too are their personal theories and expectations. This stresses that constructions of events are personally guided by personal interests and existing personal constructs. In Kellian Theory, the Individuality Corollary draws attention to the impossibility of any two individuals experiencing things in an identical manner, in that they have different standpoints, different constructs and different systems with which to cope with their experiences. This is why two people in the same situation may behave in different ways; after all, they are not in the same situation to the extent that they have interpreted it differently (Kelly, 1955).

Smircich and Stubbart (1985:732) argue that "individual people occupy personal, subjective space – space in which intentions, meaning and sensibility often are quite idiosyncratic – what the world means to them". In effect, the question being asked under such an approach is a psychological one: "Why do individuals see things, and behave, in specific ways that can be seen as definitive of the organisations to which they belong?". Kelly argues that an individual "builds his life on one or other of the alternatives represented in each of the dichotomies. That is to say that he places relative values upon the ends of the dichotomies. Some of the values are quite transient and represent merely the convenience of the moment. Others are quite stable and represent guiding principles" (Kelly, 1955: 65).

*Commonality Corollary*. Similarity of construing is possible. Kelly's (1955) Commonality Corollary complements the Individual Corollary, acknowledging the idiosyncratic differences of an individual while also bringing others into focus together with their social relationships; it is concerned with the social life of the individual (Warren, 2002). Kelly

(1970: 21) himself explicitly states: "I have used the expression 'construction of experience', rather than 'construction of event'"; this emphasises concern for the individual rather than an event, asserting that, while there is the possibility of difference (individuality), there is also the possibility of similarity (commonality) in that individuals share a similar perspective on their experiences. Duck (1982: 223) draws attention to Kelly (1970: 21), modifying his 1955 definition. The 1955 definition, as stated above, emphasises "cognitive similarity (similarity of psychological processes)", whereas in the revised 1970 corollary, "he emphasises psychological similarity of process – a subtle but important shift… it serves to make the corollary less cognitively oriented and more action oriented". This small shift in perspective can be seen in Kelly's later work, which places a greater emphasis on the 'ways' in which individual and group behaviour enacts constructs rather than solely investigating the cognitive structures.

Duck (1982) highlights some concerns with regard to the Commonality Corollary that have important consequences. For instance, how is the extent of people's psychological similarities measured? Is it through their personal constructs, their construct systems or their conclusions? An implication here is that, if research just measures similarity in terms of construct similarity alone, although this is the easiest way, it does not do true justice to the corollary, as the 'conclusions about the external event' have been ignored. Kelly (1970: 21) emphasises that "the conclusions reached through experience are likely to be in the form of new questions which set the stage for new ventures". Bearing this in mind is surely important when assessing not only similarities in constructs but also the similarities between questions as the experience of the event draws to a close. Further, Duck (1982: 225) states that "there are some operational issues to be resolved", as Kelly "had not fully worked out the implications for this corollary of different sorts of commonality that may exist" (Duck, 1982: 226). Kelly (1955: 69) makes an interesting statement: "commonality between construction systems may make it more likely that one construction system can subsume part of another", thus implying that construct systems can 'overlap', "to determine the equivalence of constructs" (Kelly, 1955: 163). The extent to which 'subsume' is defined has not been made clear. However, what is implied is that our construction systems may "'incorporate' or 'draw inferences about' or merely 'understand'" (Duck, 1982: 227). Such concerns highlight an interesting implication for practical research, further supporting the earlier points that the implications of this corollary have not been defined.

"There are different levels at which we can construe what other people are thinking" (Kelly, 1955: 67). Kelly (1955:67) explained that: "One person may understand another better than he is understood. He may understand more of the other's way of looking at things. Moreover, he may understand the other at a higher level of generality". This poses a practical problem within research: at what level is it acceptable to claim commonality of construing?

Within organisational research there is a trend that measures group-level commonality through aggregating individual responses into group-level constructs and either implicitly or explicitly adopting a composition model. The aggregation of repertory grids through multi-grid analysis is likely to reveal commonalities and differences among individuals according to their perceptions and preferences. However, many studies have failed to take individual conclusions into consideration, something which is a focus within this research.

*Sociality Corollary.* Understanding others. Kelly's (1932:188) early unpublished work provides evidence of the origins of the Sociality Corollary, which he describes as "the extent that an individual is able to cooperate with other members of his group and generally behave in a socially acceptable way we say that he possesses sociality". This corollary emphasises the importance of social interaction, roles and relationships. In short, this corollary emphasises that, the better we understand, relate to and comprehend what makes the other person tick, the more effectively individuals can work together, gaining a consideration of actions and personal motives via a social interaction (Kelly, 1955; Ellis et al., 2009; Leitner et al., 1995). This is similar to von Glasersfeld's (1995:24) notion of "intersubjective experience". It is suggested that a social enterprise can become more sustainable and viable through sociality (Tschudi & Rommetveit, 1982) as individuals put themselves metaphorically in others' shoes and become capable of seeing events from their perspectives, effectively construing the other person's outlook (Kelly, 1955; 1963; Piaget, 1932). The consequence of this is that social relations emerge at both a personal and a social level (Butler & Green, 2007).

Central to the Sociality Corollary is the concept of 'role', a "psychological process based upon the role player's construction of aspects of the construction system of those with whom he attempts to join in a social enterprise" (Kelly, 1955:68). The role that is played is an ongoing activity, a position carried out in relation to a task, and with a measure of understanding. Through this 'role' an individual is able to 'construe how another construes', 'psych him out', 'get inside her head', 'see where he's coming from', and 'know

what they mean'. In other words, they must play a part, interact and set aside a portion of their self (made possible through the Fragmentation Corollary) to 'be' someone else, they subsume another person's constructs, they therefore gain an acceptance of the individual and their way of seeing things (Kelly, 1955). The more intimate these roles, the more extensive the constructing of another person's processes

When subsuming another person's constructs, an individual does not actually absorb these constructs; instead, he or she devises constructions of the other person's constructs, as if they have been replicated. There is a mutual adjustment to the views of others, with interpersonal coordination creating a sense of shared meaning. Yet Kelly (1955) acknowledges that a full grasp of a person's personal construct system is an impossible task and neither a common or similar background guarantees social harmony, nor does it imply that two individual construct systems should be similar, or indeed accurate. Kelly (2003:16) further emphasises that:

> *"My construction of your outlook does not make me a compliant companion, nor does*
> *it keep us from working at cross purposes. I may even use my construction of your view*
> *as a basis for trying to undo your efforts. But there is something interesting about this;*
> *there is still a good chance of a social process emerging out of our conflict, and we will*
> *both end up a good way from where we started".*

Some social groups may struggle to achieve a sense of sociality. This is explained within the different construing levels that Kelly (1963) has defined. The first is in terms of an observer objectively describing merely the observed motions and behaviour, offering a hypothesised description of an individual (Kelly, 1970). The individual fails to invest in a 'role' and relates to another manager only mechanically as they reflect that the other is "not wired up to produce the behaviours I thought [they] would" (Kelly, 1970:1). Butler and Green (2007:125) note that "the sociality corollary predicts, when [individuals] are faced [by others] who they find difficult to understand they may end up reacting, often in authoritarian and intolerant manner, but primarily they fail to relate to them". As such, they may behave in what is perceived as a problematic or unresponsive manner due to a lack of constructing the constructs of the other person. If the individual continues to construe the other in this manner, then such predictive failures can be indications of 'irrational thinking', lack of 'motive' or a 'need'. Such a perspective "would not be the sort that builds viable societies" (Kelly, 1970:1) as managers are not engaged in a social process

of understanding. In contrast, the second level of construing can be described as when the observer is construing the construction process of another person, going further to place a construction upon the way in which the observer imagines the observed might be thinking. In this second case, a person understands the other as they plot a socially significant role in relation to them (Bannister & Mair, 1968).

Construing one another's constructions produces the experience of shared understanding, which can be referred to as social constructions (Raskin & Debany, 2012). The Sociality Corollary provides the means by which similarity and contrast can be seen in social action. As individuals, understanding the meanings of others also provides the means to allow individuals to confirm or disconfirm their own private understandings. Thus, this highlights that personal constructs may be formed based upon an individual's own experiences. The constructs may also be formed by social interactions. However, the person is not imprisoned by either. They may change as they further experience situations and interactions.

The Sociality Corollary has largely been neglected by those who adopt a Kellian research perspective. Perhaps this is not altogether surprising given the individualist nature of the theory. However, PCT provides effective and exploratory ways to understand the construing aspects of experiences from a group standpoint as well as from that of individuals (Fransella , 1984).

### 2.5.6 Other corollaries

Winter (2013, 2016) comments that there has only been a limited attempt to develop Kelly's basic theory, although some writers have proposed new corollaries in areas where the theory is not extensively elaborated (Katz, 1984; Procter, 1981; Thomas, 1979; McCoy, 1981). Thomas (1979) has formulated a 'Self-awareness Corollary' and a 'Social Awareness Corollary'. The former relates to a person's ability to be aware of their own process of construction through their experiences, whilst the latter refers to a person's ability to influence their processes of interaction with others. Procter (1981) extends the Sociality Corollary beyond the dyad, proposing a 'Group Corollary' which considers the relationships between members of the group. Katz (1984) builds upon the FP, putting forward an 'Emotion Corollary' and the term 'primitive construct'.

### 2.5.7 The 'Group Mind'

Within Kelly's (1932:182) unpublished manuscript titled 'Understandable Psychology', he devotes a chapter to 'social psychology' stating that "Man lives in groups". He deliberates on what he defines as a "Group Mind" and asks puzzling questions such as "Can there be an underlying pattern of cognitive processes of a group?" (Kelly, 1932:184). His answer: "…the cognitive processes of the group are no other than the organic processes of the individual members. But is there an underlying pattern for these processes which is not to be seen in any one member? Yes!" (Kelly, 1932:185). He continues: "The group mind is only a mechanism through which the energies and individual tendencies are so combined as to make their effect violently felt by all" (Kelly, 1932:185-6). He further elaborates that: "The process of the group behaviour is nothing but the behaviour of individual members, although the pattern may be super-individual. In this sense, then, we can say there is a group mind. But wait, we should be careful not to jump to conclusions. The group mind is… a super-pattern into which the individual sub-pattern fit" (Kelly, 1932:185). "The group and individual are two aspects of the same thing" (Kelly, 1932:184).

Kelly rejects the sociologist's view that the group mind is distinct from the minds of the individuals who make up that group. Instead, he places emphasis on the social or inter-individual relationship and argues for the importance of not limiting a "study of the stimuli which play upon man's sense organs or of the different predicaments in which he finds himself. It goes no further than to say what happens when he undergoes certain experiences. In order to have a complete picture of human behaviour we must examine the forces that impinge upon man" (Kelly, 1932:189). Kelly quotes the work of Kimball Young, a social psychologist: "in brief, to understand any social behaviour it is necessary to know WHAT lies in the mind as well as HOW the brain, the muscles, and the glands operate" (Kelly, 1932:190), and states, "it is a study, not merely of the individual mind, but of the influences which play upon the individual mind, participant other human minds to which adjustments must be made" (Kelly, 1932:195).

Kelly's (1932) early work on the group mind has recently received fresh attention as researchers explore the differences between conceptions of personal and social constructs, suggesting the notion of 'corporate constructs' as a way of dealing with such limitations (Balnaves & Caputi, 1993; Balnaves et al., 2000). Others (Robertson, 2003; Clapp & Cornelius, 2003; Fernando et al., 2012) consider that exploring the 'group mind', super-structure, sub-patterns, and structures of anticipation all helps to raise PCT to a level of

abstraction that more readily allows the researcher to gain an overview of sub-sections of organisational actions. Kay et al. (2008:1) study the manifestations of micro- and macro-patterns within a financial service context using Kelly's Repertory Grid. However, they do not employ the terms sub-patterns and super-patterns. They highlight that "the ability to understand the complexity of the patterns of interaction" is a persistent challenge, further commenting that "many organisational change initiatives fail, by addressing only the superficial manifestation – the symptoms of deeply embedded and historically entrenched mechanisms which shape the social behaviour of the organisation". Robertson (2003:205) importantly emphasises that "the change practitioner who walks through the revolving doors of an organisation and encounters a sense of malaise about particular issues may well be on the scent of a troublesome super-pattern. There may have been attempts to change the 'group mind' which have bypassed the most perplexing questions, such as what actually is the super-pattern we are trying to change and how does each person take responsibility for their contribution to it?"

Despite several insights and justifications of the importance of sociality and the group mind, there is little empirical evidence within the area of organisational and managerial research. Robertson (2003:205) raises a number of interesting questions relating to organisations and managers in relation to the implications of considering the group mind:

> *"How do organisations become hemmed in by circumstances? How does each person contribute to the effects 'violently felt by all' in our organisation? In what way do we as individuals contribute to organisations becoming victims of their biographies? How can we find compelling, persuasive and vivid ways of sketching, describing, caricaturing and representing a super-pattern, such that others can see it as well? In particular, how can we show that it has a repeating or replicating quality to it? How can each individual steel themselves for the uncomfortable moment of seeing their own contribution to a troublesome super-pattern?"*

There still remains a need for an empirical study of the existence of sociality within organisations, moving beyond the unique individual, past group commonality, and focusing upon the super-structure of the organisation, without adopting a reductionist approach to such complex and dynamic interrelationships.

### 2.5.8 Methodology

A number of methods have been proposed that seek to capture the construing of individuals. The most well applied are self-characterisation, Repertory Grid and laddering. Whilst all are useful, the RepGrid represents 90% of personal construct research studies (Winter & Reed, 2016). The popularity of the RepGrid is in part due to the burgeoning of methods of grid analysis, mostly supported by computer software. Amongst other aspects of constructs, these allow investigation of similarities and differences in the individual's view of particular aspects of his or her world, relationships between, and thus the meaning of, constructs, structural features of the construct system, conflicts in construing, and the content of personal constructs (Caputi, Bell & Hennessy, 2012; Feixas, Geldschlager & Neimeyer, 2002).

Whilst Kelly did not elaborate on how assessment methods might relate to the theory of PCT, he did discuss five functions within clinical settings (Kelly, 1955):

1. It is not enough that the method is 'valid', it must be 'valid for something'; it must define the problem in useable terms for the participants.
2. The method should reveal the pathways or orientations of the participants; such pathways are defined by the personal constructs.
3. It is not necessary that the method is able to present conclusive findings, simply that the outcomes may subsequently be checked and put to use by the participant.
4. The method should reveal to the participant things that might otherwise be overlooked which they may further check and put to use.
5. The method should reveal things about the participant that others may otherwise overlook.

There are numerous assessment methods that fall within a PCT framework (Caputi, 2016; Fransella, et al., 2004; Leitner, 1995). It seems necessary that the methods embrace the 11 corollaries of PCT and the five functions of the setting in which they are used. Further, it is important that a method is framed in terms of the perceptions and understanding of the participant, in their own terms.

- Unstructured conversational interview (Leitner, 1985, 1995). Within the interview, parts of the participant's life are explored in order to gain a greater understanding

of the individual. It emphasises a core belief of PCT; that is, "if you do not know what is wrong with someone, ask them – they may tell you" (Kelly, 1955:322).

- Self-characterisation procedure (Kelly, 1955). It is often used at an initial stage of fixed role therapy, where within a clinical setting the client is asked to write a character sketch of himself or herself in the third person.

- Hinkle's (1965) implication and resistance grid. Hinkle's theory of implication aims to address the lack of a single definition of a construct within PCT. Hinkle asserts that the meaning of a construct lies in what it implies and what is implied by it. This does not contain elements in the traditional sense.

- Laddering and pyramiding techniques (Hinkle, 1965). This identifies a superordinate structure of the constructs through the extractions and specific aspects of the interviewee's construct system. The laddering and pyramiding techniques are the second most widely used techniques after the RepGrid by researchers within Personal Construct Theory studies (Bell, 2016). Devised by Hinkle (1965), the techniques are designed to identify superordinate and subordinate relationships between constructs as participants answer the "how?" and "why?" with relative ease. The techniques follow a conversational approach and the laddered or pyramided constructs should be noted.

- Repertory grid, based on Kelly's (1955/1991a, 1991b) role construct repertory test. This is a popular assessment tool used to capture a snapshot of the representation of a person's construct system and how he or she makes sense of aspects of their world. In order to attain this representation, we need to ascertain how elements (the 'things' we try to make sense of in our worlds – people, events, experiences) are related to constructs. Elements and constructs can either be elicited by the person completing a grid or supplied by the researcher or clinician.

### 2.5.9 Summary

A theme emerging from literature is that decision are inherently objective, as decision-makers faced with the same decision, view a different decision, their alternatives and choices, which are ultimately different. Decisions belong to the decision body, influenced through their social context, experiences and interactions. However, what appears to be a simple question – "In what ways are organisational decisions made?" – is in fact very problematic and requires methods to capture a complex process in a manner that reflects a decision as a system of interacting parts created by decision-makers within their social

context.  Taking this perspective into account, the following section reviews the potential structuring methods within the literature, many of which are traditionally associated with problem structuring, operations management, management science and systems thinking.

## 2.6    STRUCTURING METHODS

Operations Research (OR) has evolved as a multidisciplinary perspective. As a discipline it provides a series of tools, models and methodologies that offer insights into organisational decision-making through: 1) a system orientation, 2) scientific methods of investigation, and 3) models of decision-makers' reality. Often an operational researcher (usually named the facilitator) is required and provides technical expertise and supports the process with some approaches, methods and tools.

The different types of tools, models and methodologies are often characterised as either hard or soft operational research approaches. Table 6 provides an overview of the characteristics of both approaches. When employing hard operational methods, the focus is upon the functioning of organisations and groups and their behaviour for the purpose of maximising functions. Hence, the models and solutions that are found, in this sense, are approximate solutions, from the observer perspective. In contrast, in soft methods, analysis and modelling are based upon the participants' views of the event, capturing the subjective views of multiple realities. The purpose is not to solve an issue or provide recommendations. Instead, it is to generate debate, open the context of the decision or problem space, and provide an opportunity. Faced with the need to explore and understand organisational decisions, soft operational methods were evaluated for the purpose of addressing the research question.

Soft OR approaches can be seen as a response to the inability of hard systems thinking to handle the human side of organisational decisions and offer an alternative to hard OR (Kogetsidis, 2011; Jackson, 1982, 1991, 2003, 2009, 2010; Rosenhead, 1996, 2006; Masys, 2015). They have emerged to tackle conflicting perspectives and dynamic situations and to consider interactions (Rosenhead & Mingers, 2001). Soft OR methods are based on systems thinking and are mostly qualitative, interpretive and structured techniques, used to interpret, define and explore perspectives in a simple and transparent way. They generate debate, learning and understanding, and this is used to 'walk' the participants through the problem, or, in the context of this study, the organisational decision (Heyer, 2004)

Soft OR approaches embrace a systems thinking perspective as opposed to a linear mindset and reductionist approach. Systems thinking emphasises interconnectedness, and the relations of the parts to the whole (Senge, 1990; Ackoff, 1962, 1994).

*Table 8: Hard vs soft operational research approaches*

|  | **Hard methods – sometimes called traditional** | **Soft methods – also known as problem structuring methods (PSM)** |
|---|---|---|
| The event | • The nature of the event is agreed and well defined. | • The nature of the event is not well defined; it is often viewed as messy and problematic. |
| Focus | • Primary focus is on the event; the people involved with the problem are the secondary focus (Pidd, 1999).<br>• There is a single decision-maker (or consensual group) with a clear objective. | • People are an integral part of organisations and these people each bring to the organisation their own worldviews, interests and motivations.<br>• There are a range of decision-makers or groups with differing or conflicting objectives.<br>• Seeks to help key stakeholders understand the problems they face; the views held by other stakeholders; negotiate the action to take; and agree to a consensus on a course, or courses, of action to be taken.<br>• Interpret, define and explore various perspectives.<br>• Understands the difficulties involved in the predictability of human behaviour. |
| Methodology | • Mathematical and quantitative techniques, often computer based, can be used to generate solutions.<br>• The most important factors in a problem can be quantified and reliable data collected.<br>• Future uncertainties can be modelled using probability theory. | • Interpretative and qualitative techniques.<br>• Many important factors in a problem cannot be quantified<br>• Uncertainties cannot be reduced to probabilities.<br>• The methods used must be transparent and accessible to clients. |
| Role of researcher | • An expert.<br>• Requires good analytical skills and a sound knowledge of mathematics and computing. | • A facilitator.<br>• Requires sound people skills and the ability to facilitate often stressful and contentious workshops. |
| Outcomes | • Product or recommendations. | • Progress through learning.<br>• Action plan. |

Jackson (2003:65) comments that systems thinking is "a discipline for seeing the structures that underlie complex situations… Ultimately, it implies life by helping us to see the deeper patterns lying beneath the event and the detail". As a discipline, systems thinking sees wholes and seeks frameworks that visualise interrelationships rather than the things themselves, such as a decision. It strives for patterns of change rather than descriptions of

static snapshots, and there is an emphasis on emergent behaviour and unintended consequences.

A discussion of selected soft OR methodologies appears below. This is not an exhaustive list by any means, but covers the methodologies most commonly used by soft operations researchers.

### 2.6.1 Checkland's Soft Systems Methodology (SSM)

Perhaps the most well-known and widely used of the soft OR methodologies is the Soft Systems Methodology developed by Checkland (1981). Soft Systems Methodology, in its idealised form, is described as a logical sequence of seven steps (Checkland, 1981, 1999, 2000; Checkland & Poulter, 2010. In essence, it provides a way of thinking of and reflecting on the problem situation and stimulates debate, permitting an exploitation of individual and socially constructed group perspectives in order to gain a common understanding of the problem situation. The idea is that those involved in the process can identify changes to be made and how they will be made, and motivate each other to make them. SSM is not concerned with an objective world, but with the way people make sense of the world. Generally labelled as an 'interpretative' approach, it is associated with information systems analysis and action research based within systems engineering.

SSM is focused on learning and action rather than problem solving and is associated with the use of a number of techniques:

- Rich pictures (Checkland, 1981; Checkland and Scholes, 1990) – Individual's and group's diagrammatic represents the situation for analysis aimed at developing creative thinking through impressions and symbols rather than words. Each diagram can evoke and record insights at a pre-analysis stage in an attempt to capture the subjective nature of the situation.
- CATWOE (Smyth and Checkland, 1976), stands for Customers, Actors, Transformation, World-view, Owners, Environment
- PQR Formula (three consecutive letters meaning What/How/Why) – Fully understanding the key deliverable and stakeholder perspectives
- Root definitions – Include PQR and CATWOE incorporated to create an accurate description of the problem situation in order to develop actions

Whilst SSM has many advantages, as an approach it can be time consuming and can often become 'messy', leading to further problems of transferability to industry or a lack of engagement or a sensitivity to learning, openness and collaboration within the organisation. Participants may become focused upon the intended proposed system, overlooking the current happenings.  Finally, the technical aspects of analysis are not covered within the literature.

### 2.6.2    Total Systems Intervention

Total Systems Intervention (TSI) is a methodological approach to planning, design, problem solving and evaluation.  In essence, it is a process that enables the problem solver to employ a spread of methods (Flood & Jackson, 1991, 1995).  TSI is a procedure that critical systems practitioners can embrace and uses systems metaphors.  It incorporates seven principles and comprises three stages: 1) Creativity Phase, 2) Choice Phase and 3) Implementation Phase (Tsoukas, 1993).

### 2.6.3    Strategic Choice Approach

The Strategic Choice Approach was originally developed in the late 1960s by John Friend and his team in Tavistock.  It is an interactive planning approach centred on managing uncertainty in strategic situations through a process of communication and collaboration between people with different backgrounds and skills (Friend & Hickling, 1987). SCA focuses on decisions to be made in a particular planning situation and highlights the judgements involved in agreeing how to handle uncertainties that surround a decision. SCA is an incremental method, rather than one that looks towards an end product of a comprehensive strategy at some future point in time.  These are four complementary modes at work in the Strategic Choice Approach: 1) Shaping, 2) Designing, 3) Comparing and 4) Choosing.  It is common and useful to switch from one mode to another.

### 2.6.4    Delphi Methods

The Delphi technique, mainly developed by Dalkey and Helmer (1963) at the Rand Corporation in the 1950s, is a widely used and accepted method for achieving convergence of opinion. The Delphi method uses surveys and controlled opinion feedback to collect information through the use of anonymity on the part of the participants, and the use of voting to reduce the need for long discussions and direct debates.  It is predicated on the rationale that "two heads are better than one" (Dalkey, 1972:15).  The method generally

includes 3-5 rounds of intensive questionnaires interspersed with feedback sessions. The aim is simply to generate a guide to consensus in a group (Turoff, et al., 1999). The Delphi Method has been applied successfully, but has also experienced its fair share of criticism.

### 2.6.4  Cognitive Mapping

Cognitive mapping, a form of influence diagram, is a technique that has been used by a variety of researchers in a range of settings to study managerial and organisational cognition (Walsh, 1995). It is used for solving different issues depending on the application environment, but the shared characteristic in all fields is that these maps make conceptual entities more visible. Cognitive mapping facilitates the discussion of cognitive processes that can never be directly observed and can be seen as a model of action-orientated thinking about a situation where arrows signify influences in a line of argument linking cause and effect (Eden, Jones & Sims, 1979; Eden, 1992).

### 2.6.4.1 Journey Making

Journey Making (JM), where Journey stands for JOintly Understanding, Reflecting and NEgotiating StrategY, is used to facilitate and structure understanding of organisational strategic options (Eden & Ackermann, 1998). JM has an underlying assumption that all organisations have some degree of strategic direction, whether coordinated or uncoordinated, conscious or unconscious. JM is a methodology for thinking about what strategising currently occurs in the organisation, what options there are for different strategic directions, and how those directions could be realised.

The cyclic process of 'journey making' is presented by Eden and Ackermann (1998) and is made up of a cycle of seven steps: jointly understanding, reflecting and negotiating strategy; confirming and (re)-designing strategy; strategically managing stakeholders; strategically managing the environment; managing continuity and strategic change; exploiting planned and emerging strategic opportunities; and detecting emerging strategising.

### 2.6.4.2 Strategic Options Development and Analysis

Strategic Options Development and Analysis (SODA) elicits information from members of a group using individual interviews. The information gathered is represented on cognitive maps in order to show that the concepts (or short phrases capturing some idea) are relevant and to show the linkages between the concepts (Eden, Jones & Sims, 1983). Concepts within cognitive maps are generally either goals (appearing at the head/top of the

map, self-evidently regarded as good things) or options (appearing at the tail/bottom of the map).

SODA is most commonly used within groups; however, it can be used for individuals, in order to reveal and engage with different perspectives. However, the interconnections between individuals are ignored and differences are often neglected for the purpose of agreement.

### 2.6.5   Multimethodology

The practice of combining several methods together within a study is known as multimethodology (Mingers & Gill, 1997; Munro & Mingers, 2002; Mingers & Brocklesby, 1997). Multimethodology in practice can include the combination of complete methodologies, the combination of methodologies with minor adaptations or the combination of techniques from different methodologies. This commitment originates from Jackson and Keys' (1984) System Of Systems Methodologies' (SOSM). Minger & Brocklesby (1997:491) provide an illustration of different possibilities and clarification of reflections for mixed-mode modelling. Jackson (1990), through his review of Jackson and Keys' 1984 paper and OR literature, comments that the system of systems methodologies fails to advance management science in the way that was originally intended. He comments that: "The system of systems methodologies', to realise its proper potential, must operate from above the paradigms, assisting in marshalling the various systems approaches, whatever their theoretical assumptions, on the basis of a meta-understanding of the nature of organisational problem-solving" (Jackson, 1990:662).

### 2.6.6   Viable System Model (VSM)

Working in the context of social organisations and management science, Stafford Beer sought to develop a 'science of organisation' and proposed the Viable System Model. The Viable System Model (VSM) presents a theory of organisational viability by applying notions from cybernetic theory to organisations and demonstrating their interrelationship (Beer, 1972, 1979, 1985). The VSM first emerged in Brain of the Firm (1972) from a comparison of brain and management structures. Later, in 'The Heart of Enterprise' (1979), it was built up from cybernetic first principles. In 'Diagnosing the System for Organizations' (1985), the model is presented in the form of a 'Handbook or Manager's Guide', the intention being to aid application of the principles to particular enterprises. VSM, although of general applicability, was conceived on the basis of principles derived

from the way the human nervous system is understood to control and co-ordinate. The principles were inspired by scientific findings relating to the physiology of the autonomic and central nervous systems of humans (Von Foerster, 1981; Espinosa, et al., 2008)

VSM is a conceptual tool used to understand organisations, redesigning them if required, and supporting change within them (Espejo & Gill, 1996). It is a very well-established method that continues to be applied to critically examine organisations on multiple scales and degrees of complexity, including their key processes, communication and information flows. VSM is an insightful framework for thinking differently about organisations, demonstrating evidence of its practicality and usefulness as a diagnostic tool (Brocklesby & Cummings, 1996; Preece et al., 2013; Espinosa & Walker, 2013; Reynolds & Holwell, 2010; Hildbrand & Bodhanya, 2014; Tavella & Papadopoulos, 2015; Espinosa et al., 2015; Lowe, et al., 2016; Schwaninger, 2016).

As the name implies, VSM concerns a core concept of viability, which can be defined as the ability of an organisation to exhibit behaviour conducive to survival (Brocklesby et al., 1995); it is a complex entity capable of maintaining independent existence. The VSM offers a meta-language to describe recurrent patterns of interaction, and the way different roles and groups deal with complexity in an organisational context (Espinosa, et al., 2015).

Within VSM an organisation is seen as a series of interacting levels of systems, each of which have a repetition of patterns and relationships; this is referred to as recursion, which enables the organisation and its systems to be mapped. In other words, viable systems are made up of viable systems that are themselves made up of systems (Hoverstadt, 2008). Moreover, the organisation is portrayed as an open system interacting with its environment.

VSM deals with this inherent complexity by unfolding in a fractal structure, in which systems are made up of sub-systems which have the same generic organisational characteristics; in other words, viable systems are made up of viable systems which are themselves made of viable systems (Hoverstadt & Bowling, 2002). Thus, VSM is one of the most appropriate models for looking at systems within systems.

Figure 4 illustrates the Viable System Model; a detailed description of the model is given by Beer (1979, 1981, 1985), Harnden & Walker (2008), Espinosa and Walker (2011) and Hoverstadt (2008). The VSM views an organisation as two parts: the Operations and a

Metasystem. The organisation sits within an environment and both the Operations and Metasystem must be in contact with, and interacting with, their environment.
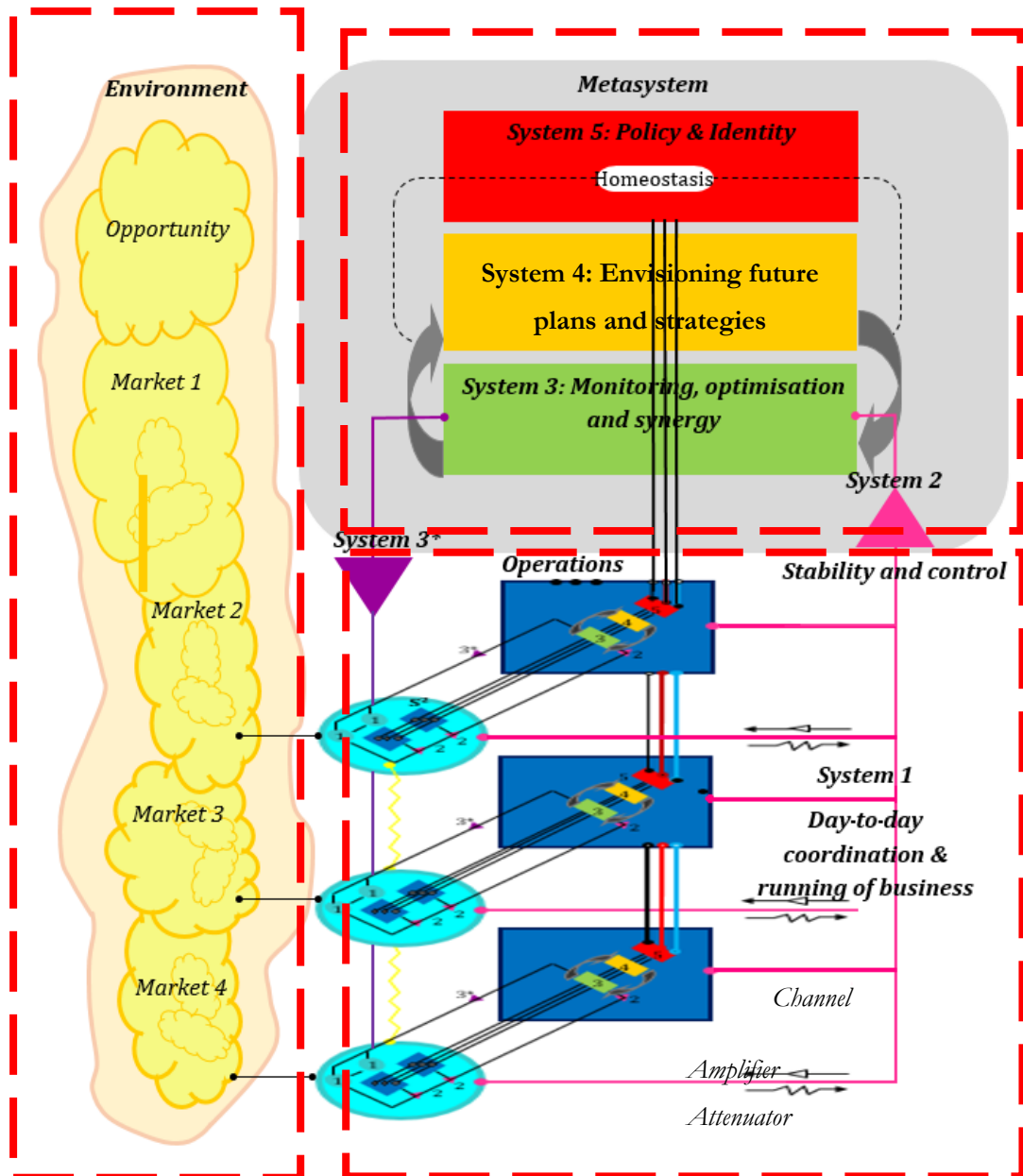


*Figure 4: Viable System Model*

For a full discussion of the VSM please refer to the work of Beer (1985), Hoverstadt (2002, 2008), Espejo and Harnden (1989) and Espejo and Gill (1997). A brief overview is provided of the five systems for viability – operations, co-ordination, control, intelligence and policy – together with the appropriate control and communicational relationships.

The VSM comprises three interacting parts. The organisation comprises **Operations** and a **Metasystem**, which exist within an **Environment**. The environment is beyond the knowledge and control of the people within the organisation.

**Operations** consists of implementation (labelled 'system 1' – S1) and coordination (system 2 –S2). The area relates to the ability of the organisation to take day-to-day decisions that are appropriate to its purpose; such decisions should be autonomous. There are two sets of management processes involved: the first are the interactions within the outside world (operations). Operations are the basic units or primary units that conduct and optimise the daily business – in the 'here and now'. The second is the way such units are made self-consistent (coordination). The coordination function dampens oscillations and enhances self-regulation. Examples often include information systems, operative plans, schedules, standards, etc.

The **Metasystem** is further divided into three main functions:

The first is the **Internal Eye**, which looks at the entire collection of Operational units and deals with ways of getting each of the operational units to work together in mutually beneficial ways. The control system (labelled S3) manages and controls S1, with an 'inside and present' role, and therefore tests checks, regulates and balances in order to maintain the internal stability of the organisation. It is often referred to as the operative management of the organisation as a whole. As such it is responsible for resource allocation and fosters cohesion. S3 also has a special audit facility (labelled S3*) to obtain S1 specific information. Audit functions ensure that each operation is effectively implementing the organisation's overall policy by testing an operation's performance against given guidelines. The information flowing through these channels is scrutinised for its quality and reliability and complemented by means of direct access to the basic units. Examples are monitoring and auditing, social and cultural activities, informal communication

The second function is the **External Eye**, which looks at the external environment, assesses the threats and opportunities, and makes plans to ensure the organisation can adapt to the future. This function comprises an intelligence system (labelled S4) which looks 'outside and future', collecting and analysing information from the organisation's total environment in order to define its boundaries, to model and monitor, and to make predictions on future trends. The long-term orientation is towards the future and in

respect of the environment (ecological, social, economic–technological). Modelling and diagnosis of the organisation is performed in its environment, and includes strategic exploration of potential spaces for action. Examples are corporate development, strategic management, research and development, the creation of new capabilities, knowledge and wisdom

The third function is **Policy**, which establishes the ground rules which set the tone for the whole organisation. The policy system (labelled S5) is responsible for policy setting and defining the system's identity by developing agreed purposes, providing the basis for the development of guidelines, and making final decisions regarding long-term directions. Ultimately, S5 establishes an equilibrium between present and future orientation, in a virtually timeless (very long-term) horizon, and between internal and external orientation. It determines the identity of the organisation and its function in the greater reference system. Examples include the supreme values, norms and principles that govern the system, i.e., the ethos of the organisation.

Each of the system's interact and therefore a number of relationships exist between them:

- Relationship between S1 and S3 (vertical channel). This relationships involves the negotiation of goals and resources, deals with accountability, management by objectives, budget control, management by exception, etc.

- Relationship between S1, S2 and S3, which is concerned with the attenuation of complexity and filtration of information coming from basic units to relieve System 3. In other words, it involves communicational damping of variety and sustenance of organisational cohesion.

- Relationship between S3 and S4, which is concerned with the interaction of short- and long-term as well as internal and external perspectives. There is a focus upon the processes of strategising. A homeostat balances such perspectives.

- Relationship (S3 and S4) with S5. This permits the moderation of the interactions between S3 and S4 in order to seek solutions or dissolution of conflicts between the distinct logics of these Systems, through S5. Stability is achieved by a balance of the varieties. For example, imbalance is the case if a low-variety ("weak") System 4 interacts with a high-variety ("strong") System 3. A functioning homeostat will correct that imbalance; it will show a tendency to equate the varieties. If not, a logically higher-level instance (System 5) will have to intervene.

The handling of S3 and S4 by S5 is important as tension naturally arises between S3 and S4, with S3 attempting to maintain internal stability and S4 pushing for adaptation to the environment (Jackson, 1988). This tension causes S3 and S4 to not have requisite variety and, if S3 and S4 are not balanced, the system may run into one of two difficulties. If S3 is "stronger" than S4, the system may ignore relevant environmental developments that should be responded to (Achterbergh and Vriens, 2002). Conversely, if S3 is "weaker" than S4, the system may implement new innovations without having the necessary operational capabilities to carry them out (Achterbergh and Vriens, 2002).

A further feature of VSM is recursion, which stipulates that each viable system is "embedded in other more comprehensive systems" (Leonard, 2000, p. 711). Recursion - The structure laid out manifests itself recursively at the various planes of an organisation. It comprises autonomous units within autonomous units: a viable organisation is made up of viable units and is itself embedded in more comprehensive viable units.

Several academics and practitioners (Hoverstadt & Bowling, 2002) have provided detailed commentary on how organisations are modelling using the Viable System Model (VSM), often for the purpose of diagnosing weaknesses in existing organisations and designing new organisational structures. The steps begin with a process to specify what the system is so that researchers and practitioners can determine exactly what should be inside/outside the system boundary. Once the system has been identified, further steps seek to analyse each of S1-S5 to create an integrated view of what and how activities are being undertaken in these systems.

The VSM has been used to, for example, support the re-organisation of cooperatives and eco-villages (Espinosa and Walker 2011, 2013); promote environmental sustainability (Espinosa et al. 2008); support educational development (Espinosa and Jackson 2002); and analyse information processes in disaster response (Preece et al. 2013) – for a review of applications, see Azadeh et al. (2012).  Whilst VSM provides the analytical model, viable system diagnosis (VSD) by Flood and Jackson (1991) provides a method to apply it.

## 2.7    CHAPTER SUMMARY

Decision-making is traditionally seen as choosing a preferred option or course of actions amongst a set of alternatives based on previously defined and logical criteria. However, this rationalist decision-making perspective, often found within managerial and organisational research, has proved to be an oversimplification. Like any other way of knowing, managerial rationality is bounded (Simon, 1955), and a study of the ways in which a manager makes a decision would provide a deeper understanding of organisational decisions.

This led the researcher to consider sensemaking which, according to Weick (1995:4), is how decision-makers "construct what they construct, why, and with what effects". Thus, a sensemaking perspective of organisational decisions will uncover how decision-makers themselves interpret what is going on – how they themselves give meaning to organisational actions (Epting & Paris, 2006). Aligned with Weick's perspective of Organisational Sensemaking is a working theory that helps managers make sense of the sensemaking and the meanings they place upon the situation. This theory is known as Personal Construct Theory and was developed within a clinical setting by George Kelly (1955). The theory provides the means of exploring and identifying the ways decisions are created by individuals within a social setting of groups for the purpose of making an organisational decision. Moreover, this approach permits particular attention to be given to an individual frame of reference for making the decision, which is often overlooked or simplified within decision-making research.

There is a need to further understand an individual's frame of reference as it gives meaning to the world, defines what the decision-maker will pay attention to and what they simply do not see, and clarifies the reasoning behind their decisions. Personal constructs form the building blocks of an individual's frame of reference and they can be accessed through a RepGrid interview with the individual and their social groups. The RepGrid technique extracts the personal convictions of the decision-maker's personal meaning, which are derived from their experiences and social interactions. The analysis of the RepGrid interview provides a powerful, rigorous and systematic interviewing approach-mapping tool that is supported by in-depth analysis focused upon the ways an individual makes sense of the internal and external environment (Jankowicz, 2004; Wright, 2004; Kelly, 1955). Insight is provided through Kelly's (1955) metaphor of "Man is a scientist", which embraces the perspective that individuals develop internal models of reality; they build

theories and models and refine them in order to better anticipate the world. Like scientists, individuals develop models and theories through observations and experimentation.

This study conjoins Weick's (1995) Organisational Sensemaking Theory together with Kelly's (1955) Personal Construct Theory, providing an alternative lens though which organisational decisions can be viewed and understood in an in-depth manner. According to Kelly's (1955) fundamental postulate, a person's processes are psychologically channelised by the ways in which they anticipate events, i.e. the organisational decision. This study therefore proposes that Personal Contrast Theory provides a missing part of organisational theory. PCT offers the ability to gain an in-depth insight into the ways decision-makers senses the decision, providing "rather like a photograph – a snapshot of that person's views at that time and place" (Jankowicz, 2004:2010). As Crotty (1998:9) advocates, "meaning is not discovered but construed".

Both theories (PCT and Sensemaking) rest on the premise that individuals do not operate within an objective reality but instead within an internal representation of it. The ways an individual sees their reality influence their understanding of it and how they respond to it. This is captured in Kelly's (1955) view that individuals are scientists actively engaged in exploring their world, experimenting within it, and building theories of how it works. Personal constructs provide the building blocks of the mental representations of the individual's world; each representation is used to "fit over the reality of which the world is composed" (Adams-Webber, 1970:31).

An individual also extracts cues from their environmental context, organisational vocabularies and strategies (Starbuck & Milliken, 1988; Weick, 1995), but importantly both theories highlight that, while the environment influences the person's meaning making and action (Giddens, 1979), the individual enacts and creates part of their environment also. Thus, the process is the ongoing way each person characteristically evolves (Kelly, 1955). Decision-making processes are not discrete phenomena, but involve collections of individuals and groups who are simultaneously involved in other activities and fulfilling different identities, each competing for attention. As demands are constantly changing, the allocation of attention can also fluctuate. Preferences, choices, identities and rules are the tools that individuals and societies use to create an impression of order amid chaos and confusion, and that order is an essential precursor of effective decision-making.

# Part C

# Providing Empirical Evidence

# CHAPTER 3        RESEARCH DESIGN

*All progress is born of inquiry.  Doubt is often better than overconfidence, for it leads*
*to inquiry and inquiry leads to innovation" Hudson Maism (1853-1927)*

## 3.1    INTRODUCTION

The purpose of this chapter is to explain the philosophical and theoretical underpinnings of this research, explicitly defining and justifying the webbed and interrelated framework, consisting of options and decisions that have guided this research study (Potter, 2006; De Vaus, 2001; Creswell, 2013; Bryman, 2015; Blaikie, 2009).  This research design is set within the context of the research (defined in Chapter 1) and based upon existing literature (discussed in Chapter 2) for the purpose of elaborating a framework that addresses the research questions.  Ultimately, this chapter provides a coherent link between the initial questions of a study, the data to be collected and the conclusions drawn.

## 3.2    THE IMPORTANCE OF DEFINITION

The topic of research design within literature is "fraught with tension and miscommunication that various epistemic communities often use the same word to mean different things" (Schwartz-Shea, 2012:7).  Additionally, uncertainty arises due to the lack of agreement and interchangeability of terminology such as paradigms, perspective, approaches, strategies and associated terms (Hussey & Hussey, 1997; Mason, 2002 ; Easterby-Smith et al., 2012; Blaikie, 2009).  Many researchers such as Bryman (2008), Crotty (1998), Carter and Little (2007), Creswell (2007) and, more recently, Killam (2013) have discussed the confusion this can cause.  In order to overcome such challenges, this study adopts Crotty's (1998) Knowledge Framework as the foundation for the research design framework.  Further building blocks extend Crotty's framework, considering relationships between elements (Carter and Little, 2007), key terminology and processes (Blaikie, 2009), with further guidance provided by Schwartz-Shea (2012), Grix (2010) and Berg (2004).  The comprehensive research design framework is illustrated within Figure 5.

## 3.3    THE CONTEXT OF DESIGN

Traditionally, research has painted the picture that decision-making in organisations is procedural, a process of seeking and processing information in a rational manner and then implementing the best option (section 2.2).  Such research presents a somewhat idealised picture of how decisions are implemented within organisations, consequently focusing upon the essence of a process rather than its creation.  Traditional research often overlooks the complexity of organisations, as recent trends within literature stress the importance of studying organisational decisions not as a "problem to be solved but a mystery to be embraced" (Nutt, 2010:191-2).  There is a need to illuminate the ways each manager, within their social groups, orientates themselves towards specific choices within the decision landscape (Weick, 1979).  Unlike much of the previous organisational and managerial research, this study focuses on the 'ways' that decision landscapes are created through individual experiences and social interactions in order to understand why organisations make the decisions that they do.
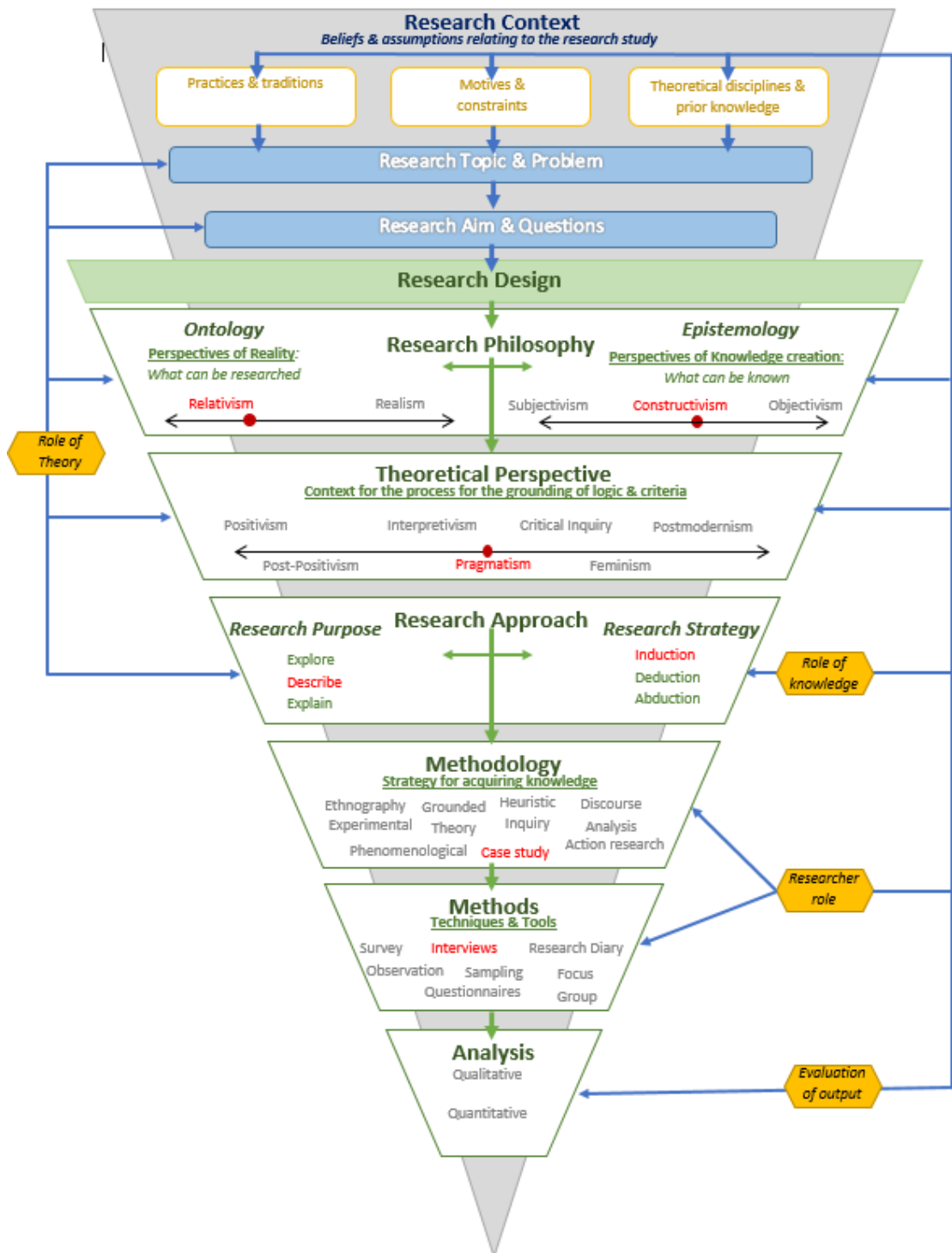
*Figure 5: Research design framework*

## 3.4 THE PURPOSE OF THE RESEARCH

The formulation of the research questions, detailed in section 1.8, provides a solid foundation for the research design, whilst Chapter 1 in general defines the nature and scope of this research, providing a focus and direction that informs the purpose and logic of this inquiry (Schwartz-Shea, 2012). Central to the research questions is a need to explore and understand organisational decisions, as Blaikie (2009:60) explains that there is a need to "know what is going on before we can explain it, and we need to know why something behaves the way it does before we can be confident about intervening to change it". Thus, it is vital to decide on the purpose(s) of research as this will guide its design, analysis and ultimately its evaluation.

This research study utilises a two-stage design strategy which incorporates an exploratory and a descriptive stage. Blaikie (2009) explains that in practice the boundaries between exploratory and descriptive research are often blurred. However, each stage of this research design is structured to address different objectives.

The first stage is an exploratory phase, which is a particularly useful approach when the research problem and methodology are not clearly structured. The objective of this phase, as its name suggests, is to explore the phenomena of organisational decisions for the purpose of generating initial insights into the nature of individual decision-making embedded within a social context. Blumer (1969) comments that this stage is characterised as a flexible procedure as the researcher is able to move in new directions, acquiring knowledge to improve understanding and procedures. This allows for a better understanding that assesses the feasibility of a richer study and determines usability of the proposed methodology and methods (Blaikie, 2009, 2013; Gilbert & Stoneman, 2015).

The second stage, which forms the main study, adopts a descriptive research logic. As its name suggests, descriptive research seeks to provide an accurate description and useful insights addressing the central question regarding 'what is' going on within the situation, mapping the terrain of the organisational decision landscape created by the managers and groups within an organisation. Such descriptions illuminate information that might not otherwise be noticed or even encountered by the managers and their groups. Cozby (2009) and Jackson (2014) state that careful observation is the first goal when describing events for the purpose of understanding decision-making and the interactions between the individual and social context. It is important to note that, whilst descriptive studies might

reveal relationships between two variables, it is not possible to say why this relationship exists (Mitchell & Jolley, 2012) as an explanation has not yet been given. Thus, there is no indication of determining cause-and-effect relationships. But the aim of the descriptive research is to describe situations and events and determine what the situation is in a creditable and authentic manner (Babbie, 2010).

## 3.5    THE RESEARCH PHILOSOPHY

The research philosophy encompasses the rationale underlying the study and contains a series of philosophical assumptions that ultimately influence research planning, implementation and evaluation. This section reviews the available paradigms and provides justification for the adoption of an appropriate paradigm for this study.

### 3.5.1    Ontological position: the nature of reality

Investigating ontological perspectives is a critical feature when defining the research design framework and should be the first paradigmatic question to be considered (Klenke, 2008), promoting a conscious awareness of how reality and social truths are revealed through the research approach (David & Sutton, 2011). It helps uncover the researcher's perceptions relating to the nature of social reality, whether the world is patterned and predictable, or continually being constructed through human interactions (Dillon & Wals, 2006; Easterby-Smith et al., 2012). Ontological questions consider: what exists?, what is true?, how things really are and how things really work. Literature (Burr, 2004; Blaikie, 2007; Easterby-Smith et al., 2012) often discusses ontological assumptions in terms of two mutually opposing and exclusive categories, known as realism and relativism. Table 9 summarises their key distinctions.

*Table 9: Ontological position*

| Relativism | Realism |
|---|---|
| • Internal perspective | • External perspective |
| • Subjective, perceptions | • Objective, tangible things |
| • Individual experiences | • Logical, causal relationships |
| • Individual truths and constructed meanings | • Factual truth, scientific laws |
| • Interpretation of meanings | • Measurement of objects |
| • Bottom-up approach – language generates the reality that we know | • Top-down approach – reality produces our knowledge & descriptions of the world |
| • There are many truths | |
| • Facts depend on the viewpoint of the observer | • Single truth |
| | • Facts exist and can be revealed |

### 3.5.2 Paradigmatic decision No 1: ontological relativist

A predominantly relativist perspective has been adopted for this research. This perspective holds that external things are sensed and internalised by managers through perceptual filtering. As such, a subjective reality is created experientially in the minds of the managers (Alvesson & Deetz, 2000) through the formation of internal conceptions or 'constructs' of the world (Kelly, 1955, 1963). This study presents a view that concepts such as rationality, truth, reality, or norms must be understood "as relative to a specific conceptual scheme, theoretical framework, paradigm, form of life, society, or culture… there is a non-reducible plurality of such conceptual schemes" (Bernstein, 19831:8). Thus, this research does not seek to ask questions about reality; it seeks to explore subjective meaning placed upon actual events. Further consideration is given to individual psychological experiences and meaning (Kelly, 1955; Weick, 1995; Easterby-Smith et al., 2002; Crotty, 1998), as a world consisting of multiple individual realities influenced by context is explored.

### 3.5.3 Epistemology: justifying knowledge

Epistemology shapes and determines a manager's worldview; "it is concerned with beliefs, truths and knowledge, viewed as a process of knowing, thinking and deciding" (Bateson, 1979:242). It is "a way of understanding and explaining how we know what we know" (Crotty, 1998:8). Put simply, epistemologies are "claims about how what is assumed to exist can be known" (Blaikie, 2000:8). The three major epistemological positions of objectivism, subjectivism and constructivism are detailed within Table 10. However, it must be acknowledged that there are other variations along this epistemological scale.

### 3.5.4 Branches of Constructivism

A constructive perspective is adopted which follows a relativist ontological perspective in assuming that "there is no absolute truth, and the job of the researcher should be to illuminate different truths and to establish how various claims for truth and reality become constructed in everyday life" (Easterby-Smith et al., 2012:48). Constructivism is not homogenous, and throughout its history various types of constructivism have emerged, as Ernest (1995:459) points out: there "are as many varieties of constructivism as there are researchers". For this reason, Figure 6 provides a glimpse of the common constructivist approaches; it must, however, be emphasised that constructivist scholars share fundamental beliefs, which are summarised by Avenier (2010). Table 10 draws upon

various sources (Easterby-Smith et al., 2002; Crotty, 1998; Blaikie, 2000) in order to summarise key distinctions between mainstream epistemological positions.

*Table 10: Epistemological positions*

| | Objectivism | Constructivism | Subjectivism |
|---|---|---|---|
| How do we know the world? | Meaning exists in the world.

There is only one universal truth; it is objective and independent.

"the mind is… an empty bucket, a blank page, a tabula rasa waiting to be filled with sense impressions or the results of reasoning" (Ernest, 1995: 467). Knowledge exists separately to individual people, thus it is independent of the mind (Pratt 1998).

Knowledge is therefore discovered rather than created by the individual. | Meaning comes from our interactions with the world.

The truth about 'what is what' is socially negotiated.

There are multiple positions from which it is possible to view reality (Potter, 2006).

Knowledge is constructed through a person's active experience of it.

That the true meaning of knowledge is then internally constructed. | We impose meaning on the world.

A subjective 'truth' is only true under certain conditions, at certain times, or for certain people.

Subjectivism aims to produce knowledge that will lead to social change.

Knowledge cannot exist without individuals to construct it.

Knowledge is created by the individual in light of such background and social forces. |
| Goal | Explanation | Exploration | Empowerment |
| Looking for | Truth | Understanding | Progress |
| Subjectivity | Error | Embrace multiple perspectives | Specific perspective |
| Look at | States (static), pieces | Processes (active), whole | Processes |
| Design is | Pre-planned | Emergent | Emergent |
| Kinds of Questions | Does…
What… | How…
Why… | How… |

| Constructivism (Knowledge is actively constructed on the basis of existing beliefs) | Personal Constructivism Piaget (1967) |
| | Radical Constructivism Glaserfeld (1989) |
| | Social Constructivism Solomon (1987) |
| | Critical Constructivism Habermans (1970) |
| | Alternative Constructivism Kelly (1955) |

*Figure 6: Branches of constructivism*

- Belief 1 - Constructivists oppose a nomothetic approach, which assumes that researchers are essentially discoverers of 'natural' phenomena and that adherence to systematic protocol and technique will eliminate all biases from the research process.

- Belief 2 - The researcher and the phenomenon under investigation are viewed as distinct. However, their separation in the knowledge process is considered not to be feasible.

- Belief 3 - Researchers are actors rather than mere information processors or reactors; they play a role in the research process, determining which structures are more or less likely to be adopted.

- Belief 4 - Researchers cannot be objective or value-neutral as theory is considered discursive and power-laden. They suggest that theories are transmitted across space and time through discursive practices. Institutions are the sites where discourses produce communities of agreement.

- Belief 5 - Scientific facts are constructed and the construction of scientific facts is a process of generating texts whose fate depends on their subsequent interpretation.

- Belief 6 - Constructivism has been conceptualised as a methodology, which is distinct from a method. A researcher who is anchored in constructivist methodology may employ a variety of methods, including statistical analysis.

### 3.5.5 Paradigmatic decision No 2: Alternative Constructivism

George Kelly (1955) was amongst the earliest of constructivist thinkers to become a key contributor to the 'constructivist family' (Chiari, 2000). Kelly (1955), through his clinical experimentation, recognised the central role of the (re)construction of experience in terms of generating more viable alternatives. This study adopts such an Alternative Constructivist perspective as a basis for this research. The following sub-sections summarise the core assumptions of this alternative way of viewing the world and human activity and its implications for exploring organisational decision-making in this study.

**Prior convictions**

Through a reflective stance Kelly (2003:5) emphasises that "all thinking is based, in part, on prior convictions". As such, researchers – like organisational decision-makers – do not merely observe and report their findings; they play a role in the process, determining which things are more or less important. They are creators rather than information processors or reactors. The implication of this for the research is that decision-makers cannot be objective or value neutral; their experiences, theories and prior convictions are interlinked and open to continual revision.

**The nature of reality**

An individual's reality is deemed to come to exist through their uniquely constructed and active experience of it. Thus, a distinction is made between an analysis of 'reality-as-it-is-in-itself' as a 'real' ontological status, and an analysis of the universe, created by an observed reality of individuals through the process of meaning making. This study does not focus upon capturing a real ontological reality. Further, reality is deemed to be integral and interlocking: "it functions as a single unit with all its imaginable parts having a relationship to each other" (Kelly, 2003:5). The parts, working together like clockwork, suggest that understanding should be focused upon the "relationship between parts of our universe" (Kelly, 1963:8). This perspective highlights the importance of exploring the decision-making of individuals embedded within a social context, not separate from it.

**The nature of truth**

An objective truth is not feasible since embedded within this notion is socially constructed reality. Truth (meaning) only exists within the world through an active and personal engagement with the world. There is no truth without construction. Truth should,

therefore, not be thought of in terms of a match to reality, as there is not a right or wrong way to interpret an event and individuals are capable of applying many alternative constructions to events.  Instead, truth should be measured against its adequacy within the context in which it was created, as it is influenced in the light of the current context, prior experiences and social experiences  Truth maybe valid at one time and invalid at a future point.  The implication for the study of organisational decision-making is that there is a need to understand how individuals create, explore, interpret and construct alternatives for organisational decisions.

### The nature of man, science and life

Kelly's (1955) convictions about the universe, knowledge and truth emphasise that an active interpretive and reflective stance is required.  It is implied within Kelly's (1955) outlook that we live in two worlds: the physical world that exists outside of human meaning and the interpreted or experienced world that we have come to know through our perception of it.  "Men after all are gradually coming to understand their world, themselves and others" (Kelly, 2003: 5), as they seek to predict and control, setting hypotheses and testing them against experiences in their efforts to actively anticipate and control their environment.

Alternative Constructivism holds that "the aspirations of the scientist are essentially the aspirations of all men" (Kelly, 2003:43), drawing parallels between scientific research and people's day-to-day activities, highlighting that individuals generally attempt to solve everyday problems in much the same fashion as scientists do.  This perspective maintains an openness towards new theoretical and methodological approaches.

### The nature of human interaction

Knowledge, truth and meaning are created by individuals through interaction between their experiences and reality.  Further meaning is also created and changed when individuals engage in social activities.  Through the process of social dialogue, each individual shares and 'negotiates' meanings.  This perspective suggests that individuals are more cooperative than authoritative or manipulative in nature.  The nature of human interaction is further embedded within this perspective, as Kelly (2003) makes assumptions concerning an individual's reality, their social reality and shared reality.

PCT represents an interesting synthesis of the most prominent philosophy of John Dewey (Philosopher) and George Mead (Sociologist), phenomenology, and hermeneutics (Chiari & Nuzzo, 1996; Butt & Warren, 2016). Through such synthesis, Kelly, (1955, 1969) claims that the basic tenets of PCT can be derived from 'Constructive Alternativism', which asserts that reality does not directly reveal itself as it is subject to many alternative ways of construing (Adam-Weber, 1979). Thus, Constructive Alternativism proposes that individuals construct as well as discover their world, rather than simply discovering and reacting to it.

Winter and Reed (2016: xxiv-xxv) have recently defined what they refer to as the simple rules of Constructive Alternativism:

- Prediction of an event has no single right answer
- More than one construct may be valid in event prediction
- An event may have different dimensions of outcome and may require the same or different constructs to predict
- Predictors may contradict each other in content; yet have utility in predicting outcome
- A valid predictor may replace or supplement another highly accepted but less efficient valid predictor
- To predict an event does not mean that one understands it
- Understanding should lead to another question or hypothesis

Raskin (2015) presents four premises of an integrative constructivism, as discussed below.

Premise 1: Individuals are informationally closed systems (Raskin, 2011, 2014; Raskin & Delany, 2012). Kelly (1955) did not explicitly employ the terminology of informational closure. However, Raskin (2016) suggests that it can be read between the lines. The Fundamental Postulate proposes that an individual is not in direct contact with the world; s/he is in contact with a channelised network of constructive processes. The world triggers constructive processes out of which a channelised network of constructs is generated. However, neither the constructive processes nor the resulting channelised constructs ever directly touch a world beyond them. In this way, we can say that the person in PCP is informationally closed as their constructs are reflections of an outside world. An informationally closed system is further emphasised by Kelly (1955), who shifts thought

from concepts to constructs.  Constructs are dichotomous abstractions – they vary, from situation to situation, by person-to-person (Kelly, 1955).  Understanding is viewed through these constructs distinct from the world.  Thus, a construct system is a closed system.  Information does not get in or out; the outside only sets constructive processes into motion, but does not dictate the dichotomous abstractions generated.

Premise 2: People are active meaning-makers.  The outside world triggers a person's internal processes and in doing so enables then to devise ways of understanding within the constraints of their constructs systems.  Thus, PCT does not see an individual as a passive respondent who reacts to events in a predetermined manner.  Instead, the individual is an active individual, putting their constructs to the test.  Their behaviour is an experience; they are each the 'man the scientist'.  Kelly's (1955) notion of behaviour as an experiment fits with the constructivist premise of people as active meaning-makers.

Premise 3: People are social beings, which makes it clear that construing is contextual, because how a person construes events is always connected to social circumstances rooted within relationships; it includes a role for social constructionism.

Individuals experience an intersubjective reality whenever others respond, highlighting the importance of 'intersubjective experiences' and relational coordination that are used by individuals to confirm their personal constructions (Raskin 2011, 2015; Raskin & Debany, 2012).  Thus, construing is both personal and private, contextual and relational.  Therefore, Premise 3 incorporates Kelly's theory in a manner that allows personal construct psychologists to treat personal and social aspects of construing as two aspects of human meaning-making.

Premise 4: People are ontological and epistemological construers; each is different (Raskin & Debany, 2012).  Ontological construing occurs when people treat their constructs as reflecting an independent world; they consider their constructions as reflections of an outside existing world (Raskin, 2011).  In contrast, epistemological construing occurs when people move from construing the world to construing their construing; the constructions of the outside world become the focus of examination.  Both are important.

## 3.6 THEORETICAL PERSPECTIVES

The theoretical perspective of a research project provides "a statement of the assumptions brought to the research task" (Crotty, 2009:7). It relates to the philosophical basis within which the research takes place and forms a link between the theoretical aspects and practical components. Each theoretical perspective has a set of assumptions about reality that underlies the questions that are asked and the inquiry itself. This leads to "different ways of research[ing] the world" (Crotty, 2009:66). Each perspective "…provides a particular language…related propositions [and] provides images of society or social life, but they do not provide rigorously developed and logically organised theoretical statements" (Blaikie, 2009:126).

### 3.6.1 Possible theoretical orientations

Following on from an Alternative Constructivist epistemology, several possible theoretical orientations were considered for addressing the research questions posed. Whilst it is acknowledged that producing a theoretical explanation of what is expected to be observed is an important part of research, the focus of this research does not begin from theory-laden observations. It is not the aim of the research to present objective facts and established truths; it does not seeks to either falsify or prove theory using a deductive approach. It is argued that positivist approaches would not be appropriate for addressing the research questions.

An interpretivist and pragmatic stance was identified as an appropriate theoretical orientation for this research. Interpretivism asserts that natural reality (and the laws of science) and social reality are different and therefore require different kinds of method (Gray, 2013). Orlikowski & Baroudi, (1991:14) state that

> *"The aim of interpretive research is to understand how members of a social group, through their participation in social processes, enact their particular realities and endow them with meaning, and to show how these meanings, beliefs and intentions of the members help to constitute their social action"*

Within the context of this study, the adoption of an interpretivist perspective focuses upon understanding decisions as experienced by the managers within the organisation. However, it is argued that such understandings should also have a practical benefit that influences action and change rather than merely observing managerial and organisational action.

The theoretical position of pragmatism shares many concerns with interpretivism. However, a pragmatist is not content with making solely interpretive descriptions; they place emphasis upon the research questions and area of concern, adopting a pluralistic approach to derive knowledge about the problem and seek to generate practical consequences and create change. Central to this view are actions, situations and consequences rather than antecedent conditions. It is concerned with application and what works as well as the solutions to problems (Patton, 1990). This has consequences for the collection, description and analysis of empirical data. A pragmatist asks questions about what people do, and not only about what they think of the world. This means that pragmatism avoids a narrow interpretivism which is not interested in change and improvement. A pragmatic theoretical orientation claims to be relativist, transactional and subjective.

### 3.6.2    Paradigmatic decision No 3: Pragmatism

The collective work of pragmatism is vast, and stands as a large and well-developed philosophy covering a range of human affairs across numerous research disciplines. John Dewey (1931), Pierce (1930), Mead (1938) and James (1907) are deemed to be the founders of pragmatism as a philosophical tradition. Given the vast scope and influence of pragmatist thought, the overview presented here represents a chosen line of inquiry. Therefore, what is presented here is just a single perspective. The influence of the selection of themes and contributions is primarily linked to the research design and aims to define the building blocks for the research design rather than provide a philosophical discussion.

### Action, Change & Knowledge

The research questions within this study imply an interest in turning actions into practice, as they are concerned with how one knows rather than simply what one knows. Thus, knowledge is developed through a growing awareness and sensitivity that comes with time or experience. The basic interest in pragmatism is, as Dewey (1931) states, as 'action'. To perform changes in desired ways, action must be guided by purpose; knowledge of the world is therefore changed through reason and action, and there is an inseparable link between human knowing and human action. Thus, when taking a pragmatic stance things are never 'finished' or 'complete'; they are 'always in the making', to use James's (1980) phrase. The implication of this is that organisational decisions are not static; they are an ever-changing movement of meaning and action disrupted by events and fluxes of

experiences related to the event. As Weick states (1979:200), "the person is able to understand an event only after inputting both a history and a prospect to the puzzling enacted display", and Kelly (1955) took Mead's basic idea of time, that it does not repeat itself, and argued that the world is always unfolding. As a result, each phase of data collection and analysis within this research will be a snapshot of a moment of such fluxes of individual and group experiences.

A further implication of this research is that there is no sharp boundary between everyday life and research; instead, research is simply a form of enquiry that is performed more carefully and more self-consciously than most of the responses to problematic situations (Weick, 1995; Kelly, 1955; Dewey, 1985). This is further supported by Kelly (1955), who refers to 'man as a scientist'. Thus, the interpretations and findings presented within this study are driven by the participants' perspectives, their experiences, their reality and the context of this research.

**Experience**

Pragmatists such as Dewey (1985) describe experience as interactional rather than transactional, emphasising the importance of the interaction between a person and aspects of the world in which they live or, in pragmatist terms, entities-in-interaction. The implication for this research study is that experience resides in neither the person nor the situation, but in the interaction between them, and this will have important consequences upon the methods adopted. Morgan (2014) states that experience is built around two inseparable questions: 'What are the sources of our beliefs?' and 'What are the meanings of our actions?' Dewey (1985) described the answers to these questions as being in a cycle of experience. By adopting such perspectives there is a focus upon actions rather than managers, since the transactional perspective offers a more holistic view which is not restricted to any specific level of analysis. Thus, organisational decisions need to be considered in transactional terms.

**Reflection**

Pragmatists consider that human life is essentially a life of meaning, of language and reflective thought and communication – this can be referred to as reflexivity (Giddens, 1986). Giddens comments that reflectivity "should be understood not merely as 'self-consciousness' but as the monitored character of the ongoing flow of social life. Thus, reflexivity is concerned as a normal and natural part of social practices, further proposing

that, through reflection, there is considerable potential to contribute to a better understanding of the social dynamics of organisational practices.

## Habit

Many of the experiences of managers occur in a relatively unquestioned fashion, which Dewey (1927) termed habit, in which the beliefs that we have acquired from previous experiences can adequately handle the demands for action in the current circumstances.  In this case, much of what managers do happens in a semi-automated state that does not require careful consideration; habit is seen as the predisposition to act in certain ways, and inquiry is stimulated when these habitual ways of acting prove inadequate for any given situation.  However, importantly, the pragmatists do not see that habit is rigidly fixed; indeed, it is the mutability of habit that admits the possibilities of creative change and social practices.  This research seeks to understand the experiences of managers but further reflect upon them in order to uncover how the habitual ways of acting may influence the creation of decision landscapes.

## The basic pattern of inquiry

For Dewey, inquiry is a practical tool that transforms experiences into comprehensible situations in which possible successful actions are made clear.  The research design and implementation in pragmatist terms is the interactions between an inquirer, possibilities within the lived world and actions.  The researcher is armed with a bi-focal lens (i.e. both quantitative and qualitative data), rather than with a single lens; pragmatic researchers are able to zoom in to microscopic details or to zoom out to indefinite scope (Willems & Raush, 1969).

Pragmatism describes conclusions about how people act and reason.  Muller et al. (2015:4) suggest that "we can better understand how pragmatists think about theories and models by analogising them to maps".  Two features of maps are significant: first, they are necessarily incomplete, and, second, we can adjudicate between maps based on the guidance they offer for intervening in the world.  As such, maps are useful as much for what they leave out as for what they keep in.  Their quality depends on whether they enable individuals to successfully intervene in the world, and the extent to which they help individuals do different things (van Fraassen , 2008). But, also, the maps that are created are constrained by the consequences of using them to act and intervene in the world

(O'Dwyer, 2010:410). Maps can be likened to decision landscapes within the context of this study.

## 3.7 RESEARCH APPROACH

Creswell (2013) asserted the importance of illustrating the research approach as an effective strategy to increase the soundness of social research. Thus, this element has been added to this study's research design framework, complementing Crotty's (1998) four stage model.

### 3.7.1 Research reasoning: logic of inquiry

Reasoning is the process of using existing knowledge to draw conclusions, make predictions, or construct explanations in order to address a research problem and answer the defined questions (Blaikie, 2007). This is also known as a research strategy or logic of inquiry, and there are three commonly adopted inquiry processes: inductive, deductive and abductive. Each has connections with particular philosophical and theoretical traditions and each addresses the purposes of research in a different way, from a particular point within a process. Blaikie (2000, 2007, 2009) provides a detailed discussion on each approach and its underlying assumptions. Table 11 presents a dynamic model of the three inquiry processes.

### 3.7.2 Paradigmatic decision No 4: inductive reasoning

A systematic inductive research strategy is adopted within this research. Such an approach seeks to develop a framework of the underlying content and structure of organisational decision landscapes as shaped by the experiences and interpretations of each of the managers within their social context as well as the researcher carrying out the data analysis. Thus, the inquiry begins within data collection and empirical observation rather than a concern with developing and testing hypotheses based on existing theory (Wilson, 2010). The purpose of inductive reasoning is "to establish limited generalisations about the distribution of, and patterns of association amongst, observed or measured characteristics of individuals and social phenomenon" (Blaikie 2009:83). This study's findings are therefore influenced by the research questions and arise directly from the analysis of raw data, rather than from a priori of expectations or models. Significant themes are expected to emerge from the data, both anticipated and unanticipated, through interpretations made from the data by the researcher. Therefore, it is important for the researcher to make

judgements in a transparent manner about what is more or less important within the data in order proceed to derived limited generalisations (Thomas, 2006).

*Table 11: Logic of inquiry*

| Mode of inquiry | Process | Relationships to theory | Purpose | Examples |
|---|---|---|---|---|
| Abductive | Creates tentative explanations to make sense of observations for which there is no appropriate explanation or rule in the existing store of knowledge. | Does not start with explanations but instead links things together to generate an order that fits the surprising facts. Theory building: seeks to expand knowledge through the creation of new ideas. | To find what is most likely true but does not prove it. Peirce's (1958) process of adopting an explanatory hypothesis. | Grounded theory Design thinking Constructive design |
| *Having developed a guess, explore the consequences via deduction* | | | | |
| Deductive | Taking a general rule and seeing what follows in particular cases. | Top-down, theory driven research. Tests initial theoretical frameworks; data outside of such theoretical frameworks is excluded. | What is (absolutely) true in a particular case. | Randomised control Experiments Surveys |
| *Now make observations to see if the rule and the consequences hold via induction* | | | | |
| Inductive | Looking across cases and data to produce a rule or pattern. | Ground up: Has a theory in mind and seeks confirmation across cases. | What is observably (most) true? Indicates probability about patterns in the data. | Surveys Cases Interviews |

### 3.7.3 Qualitative and quantitative research design

Prior philosophical assumptions often lead to embracing either a qualitative or quantitative research approach. The differences between qualitative and quantitative research have been explained by a number of different authors (Maxwell, 1998; Thomas, 2003; Corbett, 2003; Bogdan & Biklen, 1992; Creswell, 2013; Merriam, 1998; Burns, 2000; Rubin & Rubin (2011). The distinctions between the two approaches are presented in Table 12, which is

built upon the works of Bogdan and Biklen (1992), Creswell (2013), Merriam (1998), Burns (2000) and Rubin and Babbie (2008).

*Table 12: Qualitative and quantitative research*

| | Qualitative | Quantitative |
|---|---|---|
| **Assumptions** | Reality is socially constructed<br><br>Variables are complex and interwoven<br><br>Events are viewed from informant's perspective<br><br>Dynamic quality to life | Facts and data have an objective reality<br><br>Variables can be measured and identified<br><br>Events are viewed from outsider's perspective<br><br>Static reality to life |
| **Purpose** | Contextualisation<br><br>Exploration and deeper understanding<br><br>Understanding perspectives of others | Generalisation<br><br>Discovery and testing of hypotheses<br><br>Causal explanation |
| **Researcher** | Researcher as instrument<br><br>Personal involvement<br><br>Subjective, empathic understanding | Researcher applies formal instruments<br><br>Detachment<br><br>Objective |
| **Method characteristics & types** | Concludes with hypothesis<br><br>Flexible procedure that emerges<br><br>Inductive<br><br>Small samples<br><br>Ethnography, case studies, action research, grounded theory | Commences with hypothesis and theory<br><br>Procedures specified in advance, controlled<br><br>Deductive<br><br>Large samples<br><br>Experiments, single case designs, surveys, content analysis |
| **Analysis** | Reported by themes or patterns from informant's descriptions<br><br>Narrative<br><br>Descriptive write-up | Calculates statistics that describe a population or assess probability<br><br>Statistical reporting<br><br>Abstract write-up |

### 3.7.4   Paradigmatic decision No 5: a predominately qualitative approach

A predominately qualitative research design is adopted, one where the primary focus is given to words and observations, as opposed to numbers.  Such an approach is appropriate for this study as there is a need to explore in-depth descriptions of the phenomenon of organisational decision.  Such an approach is further aligned with an inductive form of reasoning, providing insights and understanding from patterns within collected data.  This permits an emergent and iterative research approach, allowing the researcher to evaluate new directions in data collection.  The qualitative approach will influence the methodological decisions taken within this research design.

## 3.8 RESEARCH METHODOLOGY

This section discusses the choices and decisions that sit behind the adopted methodology within the research. As defined by Crotty (1998:3), this is "the strategy, plan of action", and forms a central and pivotal role within the web of research design elements and choices. Many of the methodological choices have already been filtered and shaped within the research design as the methodology is influenced by the underlining assumptions about reality (ontology), knowledge (epistemology), theoretical perspectives and research approach. Additionally, the methodology influences the choices and use of methods, linking directly to the research aim, and is seen as the context and strategy for the process of acquiring knowledge and ensuring that the empirical data collection is creditable, transferable, dependable and confirmable.

### 3.8.1 Potential qualitative strategies

For the reasons explained within the research approach, methodologies based on qualitative paradigms were considered as a means for exploring and understanding how managers create decision landscapes. The process of research involves emerging questions and procedures, data typically collected in the participants' settings, data analysis, inductively building from participant to general themes and the research making interpretation of the meaning of the data. Tesch (2013) provides an overview of qualitative research, whilst Creswell (2007:7) provides a review of qualitative research whereby 28 qualitative data types are listed and categorised according to the researcher's interest. They are presented upon a continuum line, as shown in Figure 7. Through such representation it is possible to evaluate the suitability of each methodology in terms of achieving this aim and addressing the research questions within this research. As this research seeks to explore the ways that decision landscapes are created through experiences, meaning and action, phenomenology, case studies and hermeneutic were considered in detail. Other methods, related to the discovery of regularities, were discounted early within the research design process due to ontological, epistemological and theoretical assumptions.

| The characteristics of language | The discovery of regularities | The comprehension of the meaning of text/action | Reflection |
|---|---|---|---|
| Content Analysis | Grounded Theory Ethnographic analysis Phenomenology Action research | Phenomenology Case Study Hermeneutic | Reflective Phenomenology Heuristic Research |
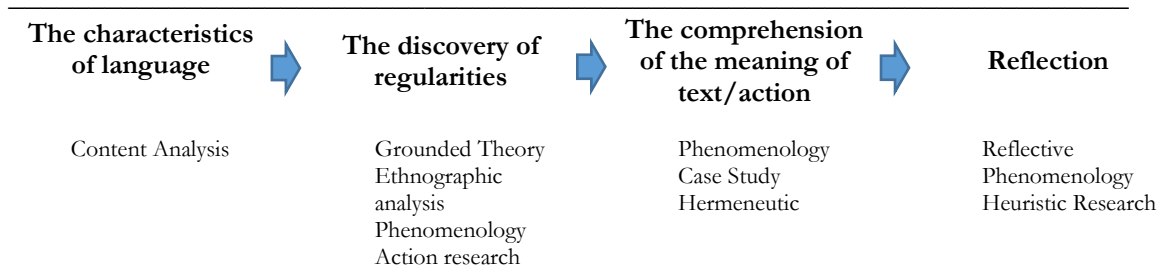
*Figure 7: Types of qualitative research*

### 3.8.2   Paradigmatic decision No 6: case study

The use of the 'case study' has a long, well-established reputation in business and management research and is a common form of social research (Stake, 2005; Yin, 2005). Literature within the social sciences is bursting with references to the term 'case study', yet there seems to be little agreement about what a case study is, and a wide variety of interpretations exist (Lincoln & Guba, 1985; Remenyi, 2013; Yin, 2013). This study adopts an established perspective popularised by Louis Smith (1979) that draws attention to a case study as an entity that has a boundary and working parts.  More recently, Creswell (2012:97) draws upon this perspective, defining case study research as "an exploration of a 'bounded system' or a case (or multiple cases) over time through detailed, in-depth data collection involving multiple sources of information".  This emphasises the importance of a bounded system, which refers to an individual, a collection of individuals, a system, an organisation or an intervention.

The adoption of such a perspective will enable organisational decisions to be explored within this study for a deeper understanding of the ways that decision landscapes are created within a real-life context.  The case study calls for an intensive and in-depth focus on the specific unit of analysis and generally requires a much smaller sample size than survey research (Yin, 2013).  Further, it provides the reader with a sense of being there by providing a highly detailed, contextualised analysis of an instance in action (MacDonald & Walker, 1975) by focusing upon interactions within the natural and complex settings of an organisation.  Thus, a case study can enrich and potentially transform the understanding of the ways that decisions landscapes are created through an exploration and analysis of complex social interactions to uncover or construct "inseparable" factors that are elements of the phenomena (Yin, 2003).

A detailed review of case studies is given by Yin (1994) and further elaborated by Scholz (2002), who reviews dimensions and classifications of case studies, and within such discussions the structure of case study design is developed. Case studies can be designed as either holistic or embedded in nature and either a single case or multiple case. Yin (2009: 46) presents the four designs within a 2 x 2 matrix and provides a full explanation of each design.

This study's research questions are exploratory in nature and seek to understand the ways that organisational decisions are created within an organisation. Therefore, this study adopts an exploratory single embedded case study approach. Such an approach would represent a typical case with the aim of capturing the circumstances and conditions of everyday actions within an organisation. As the research questions are focused upon more than one unit of analysis, an embedded case study is selected as it has the advantage of sub-units of analysis, thus allowing for a more detailed level of inquiry (Yin, 2003; Scholz, 2002). Further still, equal focus is given to each of the embedded units of analysis (individuals) together with their interactions and the larger units of analysis, known as cases (groups of individuals), whilst also maintaining a focus on the phenomenon (organisational decision).

## 3.9 METHOD OF DATA COLLECTION

This section considers the potential methods appropriate for addressing the research questions in terms of data collection and analysis. Table 13 reviews the mainstream qualitative research methods that are commonly adopted within a Case Study Methodology.

### 3.91 Overcoming traditional concerns

Due to the nature of this study's research questions and the pragmatic stance adopted, it is important that the selected method goes beyond data collection and interpretation; the adopted method needs to stimulate participants into reflecting on their practices (their views and the perceived views of others) for the distinct purpose of bringing about change. Further still, the method also needs to capture how each individual and individuals within groups create meaning and, ultimately, their decision landscapes based upon their unique experiences and interactions. This requires that the method of data collection captures thinking and conversations. At the outset it was clear that traditional business research methods such as interviews, focus groups and observations were inadequate on their own

as they were unable to provide insight into the inner world of the decision-maker without researcher bias.  It was therefore evident that there was a need to fundamentally capture the complicated social relationships that influence decision-making as individuals exchange, adjust and negotiate meanings.

*Table 13: Method of data collection*

| Method | Options | Advantages | Disadvantages |
|---|---|---|---|
| Observational techniques are methods that collect first-hand data on the process, interactions or behaviours being studied | | | |
| Observations | >Complete participant: researcher conceals role >Observer as participant: role of researcher is known >Participant as observer: Observation role secondary to participation role >Complete observer: researcher observes without participating | >Researcher has first-hand experience with participants >Researcher can record information as it is revealed >Unusual aspects can be noticed during observation >Useful in exploring topics that may be uncomfortable for participants to discuss | Researcher may be seen as intrusive > Private information may be observed that the researcher cannot report > Researcher may not have good attending and observing skills >Certain participants (e.g. children) may present special problems in gaining rapport |
| Interviews maybe described as a conversation with a purpose of gathering information | | | |
| Individual Interviews | > Standardised interview: formally structured, no deviations from question order, no clarification points.  Similar format to pen/paper survey > Semi-standardised: questions may be reordered, reworded or clarified > Unstandardised: completely unstructured, wording, language and even questions can be changed or removed | >Useful when participants cannot be observed directly > Participants can provide historical information > Allows researcher 'control' over the line of questioning | > Provides indirect information filtered through the views of interviewees > Provides information in a designated 'place' rather than the natural field setting > Researcher's presence may bias responses > People are not equally articulate and perceptive |
| Group Interviews | > Focus group interview: observes a small group talking about a particular issue > Group interview: the interviewer takes a prominent role asking people specific questions, ensuring that the group boundaries are kept to and to ensure that the group stays on track | > Information is provided more quickly than if people were interviewed separately >Interactions can be viewed from non-verbal responses, such as facial expressions or body language | > Not as in depth as individual interviews >Members may not express their honest views > Social or power pressures may influence the discussion |

Source: Creswell (2013), Nachmias and Nachmias (1981), Bryman (2015), Merriam (1998), Easterby-Smith et al. (2012), and Berg (2009).

During the research design process the researcher was faced with a number of concerns. The first concern was to gain insights into a person's experiences in a rigours and respectable manner, with some degree of precision. The second concern was the potential of 'observer bias'. Stewart and Steward (1981:4) explain that observer bias "creeps in every time we perceive something. Consciously or unconsciously our backgrounds, history and experience give us a set of expectations about the world so that we recognise familiar things… Observer bias is a serious obstacle to understanding someone else's point of view, and it is not something that can be overcome with self-discipline and tightening of resolve". The third concern was the role of the researcher within the research and the need for a conversational or exploratory approach that was transparent and accessible to the participants in the case organisation. Finally, there was a concern to gain insights into the ways decisions are created individually and in social groups, so the method needed to place equal emphasis upon individuality and sociality, together promoting reflection and interactions. Such concerns emphasised the need to look with precision at the individual person and equally at their social interactions. There was a need to avoid observer bias and also to acknowledge that people can take responsibilities for their own development and do not need experts.

Literature provided evidence that, through a process of elicitation, comparisons and non-traditional questioning, the challenges of traditional research can be addressed. This method was developed by Kelly (1955) as a clinical tool used to understand the psychological problems of patients, and is known as the 'role construct repertory test'. It is probably the most widely known aspect of Kelly's work and is widely referred to today as the Repertory Grid or RepGrid.

### 3.9.2   Paradigmatic decision No 7: Repertory Grid

While the RepGrid is not explicitly a case study technique, it is complementary to its underpinnings and assumptions. As a technique, it focuses on how a single individual develops an understanding of their own world and it contrasts with conventional psychological tests, which attempt to classify people within the psychologist's world. It is a way to understand data through interaction (Easterby-Smith, 2013), whereby the researcher works with the participants to make joint sense of the event in question. The RepGrid,

therefore, can be compared to a 'thinking tool' used to investigate the 'human *thinking*' (Shaw & McKnight, 1981) of individuals and groups. Easterby-Smith (1980:2) comments that, "if people's actions are largely determined by how they perceive situations and other people, the repertory grid can be seen as a very useful technique for understanding human behaviour – particularly one's own behaviour".

### 3.9.3    RepGrid: A method embedded in theory

The RepGrid technique is embedded within Kelly's (1955) Personal Construct Theory, discussed in section 2.5. The elements and constructs within the RepGrid reveal how each individual within their social context creates their decision landscapes and, further, how the individual orientates themselves within the decision landscape. Thus, the RepGrid can be referred to as a participatory technique. In the context of this research, it is assumed that each manager within a social group creates a system of constructs that depict their perceptions of the decision. The RepGrid therefore does not only attempt to arrive at answers to research questions but also tries to understand the ways that decision makers arrive at those choices.

**Repertory Grid application and research**

The RepGrid is a highly flexible technique, but with few demands or constraints placed on the application or content of the RepGrid as this is determined by the researcher. Further still, there are a multitude of options and forms of the RepGrid. As such, it has been adopted across many disciplines, especially within management and organisational applications (Easterby-Smith, 1980), with most applications being within specific case studies. Throughout the 1960s, a great many modifications and extensions were made to the Repertory Grid: new methods of rating data were introduced; various computer packages were produced for analysis; and a new range of techniques were devised for obtaining grid-type data. A great deal of research was conducted into the nature of Personal Constructs and the ways that the theory might be used (Easterby-Smith, 1980:8).

Literature has provided an extensive review of the applications of the RepGrid and offers examples of its many advantages, some of which are summarised below:

1    The individual focus of the technique provides an effective means of exploring an individual's perception (of people, events and activities). It provides a visible representation of perceptions, improving an individual's ability to communicate

their perceptions to others.  This may also lead to further analysis, offering a clearer understanding of how someone is dealing with their experiences (Easterby-Smith, 1980).

2   Repertory grids attempt to delve deeper and uncover managers' 'theories in use'. While difficult, the process can be rewarding, with new and interesting insights being gained by both parties (Easterby-Smith, et al., 1996.  By elaborating (or focusing) on a grid, it is possible to probe into areas about which the subject may not have been aware and, at a personal level, it may be a creative way of generating self-insights (Easterby-Smith, 1980:7).

3   Kelly's methodological concern was about observer bias, and this became a driver for developing an investigative technique that could remove the influence of the observer's frame of reference on what is observed during psychological assessment (Shaw, 1989).  Observer bias is reduced almost to zero and objectivity is maximised, as the Repertory Grid is said to minimise the input from the observer/interviewer.  The grid provides a representation of the individual's own world; it is not a model imposed by an outsider.  As such, the individual can explore this world for himself – and become a "scientist" of his own behaviour (Easterby-Smith, 1980:7).

4   The discipline involved in the application of the technique ensures that each interview is structured and is truly constructive.  The interviewer is forced to keep quiet and the rigour of the compare and contrast techniques ensures that the interviewee elaborates at length his/her understanding of his/her problems.

5   The conversational format of the technique also offers itself as a tool that is simple and enjoyable for the interviewee (Smith & Kendall, 1963).  According to Watson (1970a), the respondent is reassured that his/her own opinions are being sought, so there is no right or wrong answer.

6   The RepGrid obtains qualitative data and information in a systematic fashion which can then be open to a hermeneutic approach.  Alternatively, this qualitative information can provide information that enables examination of the vocabulary of individual members of a group (Stewart & Stewart, 1981).

7   The results can also provide quantitative data that can be complementary to the findings of a qualitative nature.  This quantitative data can be analysed by Principal Component Analysis (PCA), the results of which can be presented visually and diagrammatically as well as mathematically (Slater, 1964).

PCT is principally used within a personal therapy content.  However, its application has been extended into several domains such as management and organisations.  Several authors have reviewed the diversity of application of PCT (Fransella, Jones & Watson, 1988; Jankowicz, 1990; Brophy, 2007; Winter, 2016).

Tan and Hunter (2002) comment that, when PCT is used within managerial research to improve organisational action, it often examines differences in collective maps of groups (Daniels et al., 1994; Simpson & Wilson, 1999), while others prefer to achieve this indirectly by exploring differences in individual maps (Dutton, et al., 1989; Walton, 1986).

### RepGrid: The process

The RepGrid is a conversational process that takes place on a personal level (researcher to participant) as well as within a social setting (research to many participants) within a structured interview process.  The purpose of this process is to enable complex relationships to be represented in order to gain shared understanding (Easterby-Smith, 1980, 1996; Thorpe and Holman, 2015).  It is a learning process for both the interviewer as well as the participants as the aim is to understand the subjective reality of another person, their prior assumptions and to answer Kelly's (1955) question as to whether it is possible to crawl into the skin of another person and look at the work through their eyes.

### Laddering and pyramiding

Laddering and pyramiding techniques identifies a superordinate structure of the constructs through the extractions and specific aspects of the interviewee's construct system.  Devised by Hinkle (1965), the techniques are designed to identify superordinate and subordinate relationships between constructs as participants answer the "how?" and "why?" with relative ease.  The techniques follow a conversational approach to encourage decision-makers to move either up a level of abstraction with "why?" questions or down to increase the detail in the meaning through asking "how?" questions.  The techniques clarify meaning and its structure to both the decision-makers and the researcher and, later in the process, other managers within the organisation.

### RepGrid: Credulous listening

The epistemological assumptions of the PCT emphasise the importance of credulous listening in order to fully understand another perspective.  Features of this process include using the participant's own words to explain their experience and a rigorous process of

checking to ensure congruence between the participant's viewpoint and the interviewer's understanding of it. This intense process of interaction helps account for the richness of the results of the repertory grid process. It serves as a negotiation of understanding and a process of active listening that requires individuals involved in the process to do two things simultaneously: firstly, to accept that what the other person thinks and says is true for them and, secondly, to suspend their own ideas and judgements, which enables one person to understand the other person's perspective. This is not to say that in order to listen credulously we have to abandon our own beliefs about a situation; it simply means accepting that there are multiple ways of seeing the same set of circumstances and that by putting our own views to one side for a while we allow ourselves to fully focus on developing an understanding of where the other person is coming from.

### RepGrid: A line of questioning and comparisons

Eliciting constructs represents one of the central features of the repertory grid technique. There are many different strategies concerning the elicitation of personal constructs. The distinction between these the strategies lie in the nature of the elicitation question posed by the interviewer and the task required of the respondent in terms of the number of elements to be compared. Table 14 shows the line of questioning for each of the three approaches. The answer to the interviewer's line of question is recorded in the form of two poles of a construct. Kelly (1955) argues that the meaning of a construct is conferred when offering a contrast.

### RepGrid: The product

The RepGrid is a product as well as a process, since it is used to document the interview process and is a recording device that presents the interview data. Due to the flexibility of the RepGrid it is important to note that there is no such thing as 'The repertory grid'; its form and design can be easily changed to meet the needs of the inquiry. However, each RepGrid graphically represents the ways an individual views the world for quantification, objectification and analysis. Basically, the RepGrid is a complex sorting task (Neimeyer, 1989), which yields primary data in a matrix form (Bannister & Mair, 1968), using either nominal data, scales or ratings to represent the judgement made. Every RepGrid consists of four components: the first and central component is the topic. Each RepGrid "is always conducted about a particular topic, with the intention of eliciting just those constructs which the person uses in making sense of that particular realm of discourse – that

particular slice of their experience" (Jankowitcz, 2004:12). In the context of this study, the topic is focused upon a single decision phased as a question through which the participants elicit the second component of the RepGrid, known as elements. "An element is an example of, exemplar of, instance of, sampling of, or occurrence within, a particular topic" (Jankowitcz, 2004:13). Within this research, it is expected that the elements will be activities relating to the topic. The third component of the RepGrid is the constructs. Kelly (1955) states that we construe things by means of constructs. "To construe is to make sense of something; to have a personal understanding of it; to find meaning in it; when [we speak] about 'viewing the world' and of 'ways of seeing'… [we talk about] construing" (Jankowitcz 2004:10) In other words, the constructs represent the building blocks of how individual confer meaning to their experiences, how they orientate themselves within their created decision landscape. "In discovering the constructs, you discover how the person thinks, what meanings s/he usually discerns, about that topic" (Jankowitcz 2004:12). Finally, the last component of the RepGrid is the ranking of the each element against each construct.

*Table 14: Repertory Grid line of questioning*

| Approach | Questioning technique |
|---|---|
| **Monadic procedure** | Participants must describe an element with a single word or a short phrase. The opposite of this term ie the element is asked. |
| **Dyadic procedure** | Participants are asked to look at pairs of elements for the purpose of identifying if they are similar or dissimilar in some way. Using a single word or a short phrase, participants are asked to explain the similarities and dissimilarities. |
| **Triadic procedure** | In a similar process to the above, participants are given three elements and must identify two similar and a different one and then explain their reasoning. |
| **Full context form technique** | The participant is required to sort the whole pool of elements into any number of discrete piles based on whatever similarity criteria they choose. After the sorting, the research participant will be asked to provide a descriptive title for each pile of elements. This approach is primarily used to elicit the similarity judgements. This approach can be used within the individual and group RepGrid interviews. |
| **Group elicitation** | Similar to the triadic sort method, both element identification and construct elicitation are carried out. As a group, the members use the triadic procedure within a group discussion. |
| **Aggregation** | Idiographic (individual) repertory grids can be aggregated and in a second phase used as nomothetic (more positivistic) research instruments. For example, a synthetic grid can be constructed from individuals by coders and analysed as such or it can be used to collect rankings again. |

**RepGrid: The data**

Each Repertory Grid contains a deceptively large and varied amount of data (Fransella et al., 2004). The data consists of the elements, bipolar constructs and rates which indicate the relationships within each grid. A 12 x 10 RepGrid contains 120 bits of data and is not considered an exceptionally large grid. Despite this, all of this data provides an insight into the experiences of the individual and the 'ways' a person anticipates events (constructs) and the events (elements) in relation to the topic of the RepGrid. The emphasis of Kelly's PCT and his supporting corollaries to the fundamental postulate is directed towards personal constructs and, echoing this, the ways in which the RepGrid data is analysed will be focused on constructs rather than elements (Fransella et al., 2004).

## 3.10    THE RESEARCH ANALYSIS

Repertory grid data is often categorised as either quantitative or qualitative analysis, or a combination of quantitative and qualitative analysis, depending upon the purpose of the grid. However, Jankowicz (2004:72) argues that such perspectives are oversimplified, reminding his readers that "meaning is what has been captured in a grid… meaning is expressed by both the words and the numbers". A RepGrid analysis should aim to uncover the participants' meanings and address the research questions. Thus, unlike other methods, the RepGrid is advantageous as it facilitates both qualitative and quantitative data analysis. The identity of the elements and the nature of the constructs may provide qualitative information, while the relationships between the constructs and elements may be interpreted as quantitative data. Through a qualitative approach there is a focus on the meaning for the purpose of understanding an individual's experiences, whereas quantitative approaches focus on the relationships that exist within the features of the RepGrid. The features of qualitative and quantitative RepGrid data analysis are detailed by Hair et al. (2009:57) within Table 15.

Analysis of RepGrids can either be idiographic or nomothetic in nature. Idiographic implies that the focus is on the individual and their subjective experiences, with results subsequently presented as an expression of the individual's cognitive meaning (Lankoski et al., 2015). However, the analysis could also compare the RepGrids of individuals and group. Such analysis is considered to be nomothetic. Whilst the RepGrid and its analysis is often used in a quantitative and nomothetic manner, this study focuses upon the ways individuals create their decision landscapes. Therefore, idiographic data analysis is central

to addressing the research questions.  Themes that are common (despite the different elicited elements and constructs) between each RepGrid may emerge.  Such themes are clearly rooted in the ways that each individual creates their decision landscapes.  Tan and Hunter (2002:52) stress that "researchers interested in the idiographic characteristics of individual RepGrids are not restricted to analysing the elicited constructs purely from a qualitative perspective".  Olsson (2015) supports this view, illustrating how qualitative and quantitative analyses may be used in combination within nomothetic RepGrid studies.

*Table 15: Features of quantitative and qualitative analysis*

| Quantitative | Qualitative |
|---|---|
| <ul><li>Focus on the grid.</li><li>Analysis of numbers, such as cluster analysis</li><li>Principal Component Analysis.</li><li>Positivist ontology.</li><li>Numbers as evidence of fact.</li><li>Study of participants.</li><li>Frequency counts are considered evidence of importance.</li><li>Research quality assessed by means of validity, reliability and generalisability.</li></ul> | <ul><li>Focus on the meanings of constructs.</li><li>Analysis of constructs themselves, whether the full range of constructs is captured.</li><li>Social Constructionist ontology.</li><li>Numbers as a means of prompting discussion.</li><li>Study with participants.</li><li>Frequency counts as evidence of salience only.</li><li>Research quality assessed by means of credibility, dependability and transferability.</li></ul> |

The research design has justified the adoption of a predominantly qualitative approach that maximises the depth of the results and the understanding of the ways that managers create their decision landscapes.  However, quantitative analysis is adopted to illuminate relational patterns that are not always obvious within qualitative research (Shaw & McKnight, 1992).  Thus, both the process and the product of the RepGrid technique can be used for further analysis.

There are a number of mainstream approaches adopted within research for the analysis of single grids.  They are discussed in turn.

### 3.10.1  Descriptive analysis

Construct elicitation, laddering and pyramiding (section 3.9.3) produce a large amount of qualitative data.  This may be analysed using standard qualitative techniques (Neuman, 2014; Dey, 2003; Miles & Huberman, 1994; Hunter , 1997). At its most simple, this will result in the allocation of the constructs to a categorisation scheme.  However, it may be extended to more advanced forms of analysis, as discussed below:

*Process analysis* focuses upon the conversational process of the RepGrid interview rather than the product (the completed RepGrid template). The analysis is completed during and immediately after the interview and focuses upon how the participant reacted to the topic, how elements were selected and why. Additional focus is given to what kinds of constructs were offered during the process – did some require more through than others, for example. The process analysis also draws attention to how the participant rated the elements against the constructs. Jankowitcz (2004:77-80) provides full details of how the researcher should complete a process analysis.

*Eyeball analysis* focuses upon the product of the RepGrid, the raw data produced within the structured interview. It follows a similar concept to the process analysis; however, its purpose it to familiarise the researcher with the meaning of the RepGrid itself. Jankowitcz (2004:80-82) provides guidance for this analysis. However, in summary, it is used to reflect upon the core components of the RepGrid: 1) topic, 2) constructs, 3) elements and 4) ratings or rankings.

Guided by the work of Jankowitcz (2004), this study has designed a template that combines the process and eyeball analysis. This takes the form of a researcher template and a participant work book.

To further develop the descriptive analysis, a *visual focusing* technique is completed by the researcher. It is based on the concept of revealing the meanings in a grid by re-sorting it so that elements and or constructs that are alike are placed together. This may also involve re-sorting the ratings of the grid in terms of the emergent pole (similarity pole) and the implicit pole (contrast pole). This highlights similarities in how elements and constructs are used within the RepGrid. It is noted that this process is similar is to cluster analysis, discussed in section 3.9.

*Content analysis* is a well-utilised qualitative technique of coding and categorising words and phrases, and within the context of the RepGrid it is used to categorise the elements and constructs. The categories can be predetermined (for example, from a reading of relevant literature) or can 'emerge' from the data itself. Weber (1990) provides more information that may be consulted for an instructive example. Data-driven content analysis has been favoured by authors working in the business or management field (Honey, 1979; Jankowicz, 2004; Stewart & Stewart, 1982; Sypher & Zorn, 1988; Wright, 2004). Content analysis has not historically been widely used in PCP research (Green, 2004:82). One

reason for this could be the concern that constructs are not necessarily equivalent to word labels (Kelly 1955).

### 3.10.2 Relationship analysis

There are a number of statistical techniques that may be employed to investigate the relationships amongst the elements and constructs within the RepGrid

A popular statistical analysis used to evaluate relationships within the RepGrid is a Cluster analysis. This provides an indication if particular constructs and/or elements are highly correlated. This may indicate that, in the personal construct system of the individual involved, certain constructs are very similar in meaning or closely related. A simpler form of cluster analysis is referred to as "visual focusing" – refer to Stewart and Stewart (1981) for more detail on both topics and Phythian and King (1992) and Latta and Swigger (1992) for examples.

The second statistical procedure used to describe the content and structure of the RepGrid is a Principal Component Analysis, making it possible to provide a basis for understanding what factors shape the decision-maker's actions. The relationships between the elements and constructs are considered in order to further understand how the decision-maker conceptualises the strategic growth decision. Principal Component Analysis is commonly used in the analysis of repertory grid data (Fransella, et al., 2004; Jankowicz, 2004) and is a common technique for exploratory data analysis, as it transforms the variables (constructs) within the RepGrid into an equal number of principal components. This technique reduces the amount of information about the relationships between elements and constructs and expresses them in an easier manner, as it considers the variance in the ratings of elements and constructs and identifies distinct patterns of variability. A Principal Component Analysis provides the ability to identify how many independent variables are needed to explain or 'predict' the variability within the RepGrid data. This is achieved by transforming to a new set of variables, the principal components (PCs), which are uncorrelated, and which are ordered so that the first few retain most of the variation present in all of the original variables (Jolliffe, 2002:1). This method of data analysis is also known as spatial analysis (Easterby-Smith, Thorpe & Holman, 1996) and, when applied to RepGrid data, it highlights the relationships between each of the constructs, each of the elements and between constructs and elements. In this study, this form of analysis enables an exploration of the ways that constructs and elements are correlated within the decision

landscape. Each of the manager's decision recipes contains hidden variables which can be indicated through the calculation of correlation coefficients as well as possible relationships between two variables. The variables can be related in three ways: 1) positively related, 2) negatively related and 3) not related at all (Field, 2009). The analysis provides an indication of relationships between two variables. However, it does not indicate whether one variable causes the other. Although PCT does not specifically refer to the association between one construct and another, except in terms of superordinate and subordinate relationship, there has always been a tradition of calculating such associations. Correlations provide an index of associations. Additionally, due to the bipolar nature of personal constructs, the orientation of ratings to poles is arbitrary: negative correlations indicate that the left-hand pole of the one construct is associated with the right hand pole of the other.

### 3.10.3 RepGrid: software and guidance

There are a number of computer packages used to analyse RepGrids, namely GridSuit, Flexigrid, Idiogrid and Compare Within. However, each of these programs presents the results in somewhat different graphics and may also employ specific analysis (e.g. cluster analysis in Idiogrid, PCS in Enquire Within) or a variety of statistical calculations (e.g. extractions, rotations). This research adopts Idiogrid (Grice, 2002) and SPSS, as the use of these software packages permitted an analysis that was aligned to Field's (2009) and Pallant's (2013) in-depth procedure for producing and interpreting correlations and PCA. The steps and decisions have followed the guidance of Field (2009). The first set of results uses eigenvalues and scree plots, which provide a way to determine how many components to retain. The second set of results represents a rotated component matrix. The results of the extracted principal components for each decision recipe as interpreted and are discussed in sections 4.3.2 and 4.3.3.

### 3.11 THE ART AND PRACTICE OF INTERPRETATION AND EVALUATION

Fossey et al. (2002) comment that "sound research requires a systematic and rigorous approach to the design and implementation of the study, the collection and analysis of data, and the interpretation and reporting of findings". However, this is insufficient on its own; it is vital that the research is of good quality, and that it is fit for purpose. Such quality plays a central role throughout all the steps within the research process and is explicitly discussed here together with the evaluation criteria that are constant within the aims of research, the philosophical position of pragmatism and the qualitative nature of the

research. The relevance of the criteria and the steps taken to ensure compliance are discussed in turn and they draw upon the works of Creswell (1998), Lincoln (1995), Lincoln and Guba (1985), Stake (2005), Baxter and Eyles (1997), Denzin and Lincoln (2000), Glaser and Strauss (1967) and Patton (2002, 2005).

### 3.11.1 Creditability and authenticity

"The most important principle for guiding qualitative studies is the notion of credibility… Credibility refers to the connection between the experiences of groups and the concepts which the social scientist uses to recreate and simplify them through interpretation" (Baxter & Eyles, 1997:512). This is central to the purpose of this research as it seeks to capture and honour the perspectives of the research participants and to "illuminate the subjective meaning, actions and context of those being researched" (Popay et al., 1998:345). Thus, it is important that the participants' perspectives have been authentically represented in the research process and the subsequent interpretations made from information gathered.

Guided by Beck (1993), a number of strategies were adopted to ensure the credibility and authenticity of this research:

1. In-depth field notes were kept. This included a research diary containing reflective points regarding conversations and meetings with the organisation and its participants. During the data collection, a structured template known as a process analysis was completed by the researcher, whilst each participant also completed a similar template capturing reflective thoughts. The templates were directly utilised during the analysis of the data to ensure that the interpretations of the research presented the views of the participants and disparities were acknowledged and discussed with the participants. The analysis and findings were validated with the participants at each phase of the empirical study.

2. The RepGrid procedure was standardised and structured using a series of prompt questions within a predesigned work booklet. This ensured that the researcher minimised their impact and biases upon both the participants and the data.

3. The procedures for analysis also followed well-documented approaches of analysis within this field of research.

### 3.11.2 Transferability

There is a focus within this study on a single context in order to discover, describe and reconstruct the things that are meaningful to the participants within it. However, elements of research produced in one context may be transferred to others (Baxter & Eyles, 1997: 515): "Transferability refers to the degree to which findings fit within contexts outside the study. Elements of research produced in one context may be transferred to others". Within the adopted paradigms, experiences and meanings are assumed to be largely bound to the time, people and setting of the particular study. Attention is given to the uniqueness of cases and transferability should not be immediately rejected, as the uniqueness of a case maybe similar to the findings of others (Stake, 1995) This is a view similar to that of Lincoln and Guba (2016), who discuss the importance of the qualitative researcher enhancing transferability through thick descriptions of the research context and explicitly discussing the assumptions that were central to the research, thus allowing the reader to gain an in-depth understanding. Further to this, they suggest that it is the role of the person who wishes to 'transfer' the results to a different context to be responsible for making the judgement about how sensible the transfer is.

### 3.11.3 Auditability

Guba and Lincoln (1981) refer to auditability as the ability of another investigator to follow the decision or audit trail. The decision trail encompasses all the decisions made by the researchers at every stage of the research design, collection and analysis. This has been summarised through this chapter and is further commented upon within the findings through the following strategies, as proposed by Beck (1993):

- Interviews were not recorded through mechanical devices due to the private and personal nature of the conversations concerning the organisational decision. However, the research did incorporate process analysis and reflective booklet to overcome some limitations of the research.
- The coding of the personal constructs was completed by the researcher and the participants and was then reviewed and agreed.
- A clear decision trail has been provided within the research design and the output of all analysis has been provided within the appendices, together with details of the analysis decisions and software packages.

### 3.11.4 Confirmability

Confirmability means the degree to which the findings of a study are shaped by respondents and not researcher bias, motivation or interest. This also refers to the neutrality of research. The concept of neutrality addresses whether the researcher's a priori assumptions have been stated and the acknowledgement that such bias may impact upon the implementation of the study and the interpretation of results. Whilst the philosophical assumptions state that research is never bias or value free, it is possible to produce findings that authentically capture the respondents' views and experiences without 'undue' influence of the researcher's bias or motivation. The adopted and established techniques that facilitate confirmability include member checks from the participants for the purpose of evaluating the accuracy of interpretations and findings. This provides an important feedback opportunity that can lead to additional data gathering and the development of stronger and better articulated findings. The research should adopt an audit trail. Lincoln and Guba (1985: 319-310) cite Halpern's (1983) categories for reporting information when developing an audit trail. For example, raw data, data reduction, data reconstruction, process notes, materials, instrument development information. Finally, the research has sought to adopt a reflective approach to the research for the purpose of a conscious deliberation of what is done, how interpretation is completed, and the relationships and interactions with the participants. A research notebook has been kept throughout the research design, implementation, interpretation and findings stages.

### 3.11.5 Ethical issues

In every research project, whether it is for managerial purposes or academic purposes, ethical issues need to be thought through at the design and planning stages. This ensures that all the design decisions are made in consideration of ethics and thus problems at the implementation stage are minimised or even eliminated. Lipson's (1994) groupings of ethical issues are adopted by Creswell's (2013) which identifies where in the research process ethical issues are likely to occur, the following table describes the strategies taken within this research to ensure consideration of ethical issues, and details the key ethical issues and the ethical process.

*Table 16: Ethical process and details*

| | |
|---|---|
| University ethical standards | The University of Manchester's code of ethics has been consulted and followed, and ethical approval was gained on 14th August 2014. |
| Informed consent procedures | Written consent was provided by each participant. This was sought at three levels. Firstly, at the organisational level, a director of the organisation was contacted and the purpose of the research and the research procedure were verbally discussed. Upon receiving consent, the potential participants were contacted and given the information pack, which contained a copy of the consent form and a request to arrange a day for interview. Once the participant informed the researcher of their interest in the study, the interview was arranged and within the interview, after any questions were addressed, the consent form was signed. |
| Deception or covert activities | An informative participant information pack was provided to the organisation and each of the potential participants as a follow-up to the initial contact. This contained the definition of the ethical standard, the research overview, the participants' involvement, sample tools and, finally, the consent form. |
| Confidentiality towards participants, sponsors and colleagues | Personal or confidential information is not required of either the participants or the organisation. The completed RepGrid of each participant would not require the participants to include their names. Anonymity was maintained during group discussions and the research findings. Before each group session, each participant was able to view their own RepGrid and agree to share it with the group. |
| Benefits of research to participants over risks | Once the first stage of consent had been given from the organisation, the researcher and a company director conducted an informal needs assessment; potential topics and research purpose were discussed and agreed between them. Once the organisational benefits were agreed upon, participants were contacted and informed about the general purpose of the study and their involvement together with the potential benefits to them. |
| Participant requests that go beyond social norms | The expectations and arrangement between the director of the organisation and the researcher were clarified in advance. The interviews were conducted off site, at no cost to either party. It was agreed that the outputs of the research would inform the company's strategic growth; however, defining the growth strategy was deemed to be outside the scope of the research. |

## 3.12 THE PILOT STUDY

The pilot study was undertaken as a preliminary exploratory empirical activity that ultimately assessed the usability of the RepGrid to illuminate the ways each decision-maker draws upon their experiences to make decisions. The results of the pilot study were used to assess the wider research questions and the feasibility of completing a richer descriptive study.

Completing a series of RepGrid interviews within the context of a pilot study also allowed the researcher to gain experience of and confidence in the implementation procedure, as it was the first time that the Repertory Grid method had been used by this researcher. Thus, the context of this study was not of primary concern at this stage. However, during the pilot study the researcher adapted a flexible procedure allowing movement in new directions, assessing and evaluating traditional research options associated with the RepGrid procedure for the purpose of improving researcher understanding, skills and procedures.

### 3.12.1 Access and sample

The first pilot study was completed in September 2015 within a North-West university, and adopted a convenience sample approach. Whilst the limitation of a convenience sample was acknowledged, this approach was attractive due its ease of access and a familiarity with the participants, context and topic. This was deemed important as the researcher had not used the RepGrid prior to this pilot study and participants were willing to given honest and informative feedback. The researcher worked within the university as part of an undergraduate programme team containing 13 full-time lecturers in total. All members of the team were invited to take part within the study and seven lecturers agreed to do so.

### 3.12.2 Case context

Each academic year an undergraduate programme team designed and ran a three-day induction session for all new first-year students. Typically, this cohort consists of 200 students. The three-day nduction typically included an introduction to the university and the Business School, campus and library information, and a plagiarism session. Additional sessions, tailored to the undergraduate programme, included several sessions which focused upon programme information, timetabling, samples lectures, business games and social activities undertaken by personal tutors.

Feedback from previous years highlighted that students believed that induction was too long, with students feeling overwhelmed with the amount of information given to them within a short space of time. Many students were not able to recall key information or sources two weeks after induction had been completed. Feedback from the staff involved within the sessions supported the views of the students, but further concluded that induction sessions did not create engagement between the students, as many remained disconnected from student networks within their first year.

Each year, the team would spend half a day designing the induction programme, with the aim of addressing issues within the prior year's feedback.  During such sessions, there were multiple perspectives on what should and shouldn't be included within Induction.  There were many discussions whereby individuals would try to convince the others within the programme of their point of view.  However, no agreements were reached within the sessions.  Thus, the programme leader would review the options offered and present a solution that embodied a position of compromise for the induction programme.

The researcher felt that this situation would make an ideal case for the exploration of the effectiveness of the RepGrid interviews in order to understand the perceptions of each lecturer, why each held the views that they did, and ultimately explore the ways that each individual made the decision they did within this context.

### 3.12.3  Repertory Grid procedure

Prior to the interviews, the details of the study were discussed with each participant and they were provided with the research information sheet, which provided additional information about the wider PhD study as well as information regarding the pilot study and their involvement.  In addition, the participants signed an interview consent form providing permission to be interviewed.

The semi-structured RepGrid interviews followed Jankowicz's (2004:22-39) 10-step procedure, which proved to be a fruitful and enriching procedure that demonstrated the power and rigour of this method within an applied setting.  The researcher's reflective thoughts are presented below together with several lessons learnt and potential improvements suggested by the participants and the researcher.

**Decision on the Topic**

A traditional RepGrid interview starts with the agreement of a topic.  In the case of this research, the topic is formally described as the organisational decision and is phased as a single question.  The researcher and the Programme Leader defined the decision as "What activities do you think should be included within the level 4 induction?".

**Element Selection**

Elements are elicited by the participants through a structured conversational approach within the interview.  They were dictated by the nature of the decision and how each

individual represented the decision through their personal experiences. All participants were able to elicit between seven and 10 elements.

**Constructs**

The RepGrid interviews followed the basic procedures for construct elicitation. The triad approach created clear contrasts and was generally more comprehensive, therefore suggesting that this research should use the triadic elicitation procedure, an approach commonly used by many researchers.

**Laddering and Pyramiding**

The laddering and pyramiding techniques were effective in obtaining more information about the participants' meaning for within the bipolar constructs. However, two of the participants asked the reasons behind the question of "Why is this important to you?". Initially, they assumed it was because they had not been clear or did not provide the correct answer. Once the process and the reasoning behind this process were explained to the participants they continued and engaged with the process, increasing the detail and variety of constructs.

**Rating of Elements**

The participants rated their elements against each bipolar construct, using a five-point scale. All participants were able to complete this exercise with little difficulty, demonstrating that the five-point scale was useable and effective.

### 3.12.4 Outcomes of the pilot study

The Programme Team met to finalise the Induction programme. During this meeting, the findings of the Pilot Study were presented together with a feedback session facilitated by the researcher. The final RepGrid templates were shared within the session together with the reflection made by each participant. All grids and comments were anonymised.

Through a qualitative review of the personal constructs within the RepGrid, three distinct themes emerged representing what individuals believed the purpose of Induction to be about: 1) information sharing, 2) skills and knowledge development and 3) social engagement between students and staff. This highlighted a potential reason why, at each of the prior Induction design meetings, the programme team members were unable to agree on what should be included within the Induction.

The researcher argues that, through the process of conducting RepGrid interviews, each participant was able to uncover the assumptions behind their perceptions of the decision and understand those of others. Further, the pilot study facilitated a way of improved understanding and allowed the group to design the 2015 Induction in an effective manner, through personal and group reflections. The group members were able to agree on several recommendations as they were able to discuss, question and agree upon the purpose of the Induction Programme for the students.

### 3.12.5 Learning from the pilot study

The pilot study was completed with positive feedback from all respondents. Each was impressed with the RepGrid approach, which they found intriguing and interesting. Several insights were gained that drove the need to modify the methodology and research tools. Firstly, the researcher felt that the start of each interview was unstructured and that neither the researcher nor the participant felt at ease. This supported the need for an interview guide, or a series of prompt questions to provide an informal discussion at the start of the interview. Secondly, during the first interview the researcher took the role of writing down the final elements on the cards; this was done to ensure that the elements were worded correctly. However, during the conversation regarding the elements, there were times when multiple elements were named and the researcher felt that she missed some important points. Therefore, an alternative approach was required – one that encouraged the participants to write down as many elements as they could themselves before an in-depth discussion took place. Thirdly, participants needed to be reassured that, when laddering and pyramiding, the questions of 'why?', 'how' and 'in what way?' are part of a process of improving detail and variety rather than indicating any inadequacies in the participants' responses. This highlighted the need for a template approach that would guide the participants through the process. Finally, the researcher felt that a focus upon a single A3 static RepGrid distracted the participants from the process itself. It was therefore proposed that a work booklet that detailed each step of the process and acted as a recording device would be beneficial both to the RepGrid process and to the analysis that followed. Table 17 summarises the final methodological process of the descriptive study.

*Table 17: Methodological process*
(Adapted from: Harri Augstein, 1985; Easterby-Smith & Lowe, 2002; Goffin, 2002; Jankcowicz, 2004; Formm, 2004; Cassell & Symon, 2004).

| | | | |
|---|---|---|---|
| **Planning of empirical study** | Pre-Session Planning [1] | The purpose of research & decision negotiation | The interviewer's line of questioning should specifically relate to the context of the research study to focus the results and discussion (Easterby-Smith & Lowe, 2002; Goffin, 2002: Formm, 2004). |
| | | Select participants for study | The selection of participants needed to meet minimum inclusion criteria: a sample size larger than 15 participants (Baker, 2002; Jankowicz, 2004) or a purposeful sample. |
| Phase 1 of empirical Study – Individual Layer | Element Elicitation | Choose Element Type | Elements can be chosen by the researcher, elicited by the participant, or agreed through negotiations. This study adopted a full elicitation method, which offers rich results (Jankowicz, 2004). |
| | | Specify Elements | A minimum of nine elements should be specified. Elements can be people, places, activities, decisions, business strategies, etc. They should represent qualities (Formm, 2004; Jankowicz, 2004). |
| | | Agree a set of elements | All elements should be representative of the decision or topic of the research study. The research should ensure that all elements are usable for the RepGrid technique. |
| | Construct Elicitation | Triad, dyad and full context sort techniques. | Participants are asked a series of questions asking them to compare and contrast triads (three elements) or dyads (two elements) to elicit pairs of constructs that describe the interviewees' experience (Jankowicz, 2004). |
| | | Define the bipolar constructs | Participants define the emergent side of each construct. There should be a clear contrast, an appropriate level of detail that communicates the meaning of the constructs and a clear relationship to the topic (Jankowicz, 2004). |
| | Raw Grid | Enter Grid data. | Respondents rate or rank each element against the constructs elicited. A two-point scales can be used as in Kelly's original design, a five-point scale or a seven-point one. The current research adopts a five-point scale (Jankowicz, 2004). |
| | Analysis [2] | Evaluate the experience of the process | This provides an opportunity for decision-makers to consciously reflect upon their unique patterns of sensing the decision, influenced through experiences and their choices. |
| | | Evaluation of the product | Decision-makers view the researcher's analysis of their RepGrid for the purpose of uncovering hidden and complex patterns within the data of the RepGrid. A member-checking exercise is also completed. |
| | | Reflect upon Weick's first Sensemaking Recipe | "How can I know what I think until I see what I say?" Weick (1979:133). |
| Phase 2 of empirical Study – Social Layer [3] | Pre-Session Planning | Prepare session materials & invite participants | Each of the individual RepGrid constructs and elements should be reproduced on small cards, with identifying codes on the backs. Additional visual tools, prompts cards, pens, element cards, construct cards and an A1 RepGrid Template should be finalised. |
| | Group facilitations [5] | Gaining a sense of how others view the decision | This step triggers an in-depth interaction between decision-makers as they immerse themselves with a focus upon 'what' others think (individual elements) and 'how' they think (personal constructs). |
| | | Categorisation exercise | Each group should systematically sift, sort and categorises key themes within the individual elements and constructs. Key themes should be labelled using a single word or short phrase. |
| | | Category reflection | Decision-makers should define themes and reflect upon them, for the purpose of deepening their group discussions. To conclude, each group needs to agree upon and selected the most important element and construct category to the group. |
| | Elicitation of Group RepGrid [6] | Briefing | The groups are reminded of the topic, the RepGrid elicitation process and outcomes of Phase 1. |
| | | Decision discussion | The group should discuss what the decision means for them. The groups should be encouraged to consider the categories of all groups and are also encouraged to consider other factors previously not identified. |
| | | Element elicitation | Each group define nine elements on the coded group element cards. The researcher should check the wording of the elements and facilitate rewording where required. Elements should then be finalised onto the cards. |
| | | Construct elicitation | Visual aids structured the triad process, ensuring that elements were compared in a systematic manner. The final constructs are written onto the coded construct cards. |
| | | RepGrid rating | Visual aids together with an initial facilitation exercise provide a structured process for the groups to rate the elements against the constructs. Each group need to agree upon the ratings. |
| | Analysis [2] | Evaluate the experience of the process | This provides an opportunity for decision-makers to consciously reflect upon their unique patterns of sensing the decision, influenced through experiences and their choices. |
| | | Evaluation of the product | Decision-maker to view the researcher's analysis of their RepGrid for the purpose of uncovering hidden and complex patterns within the data of the RepGrid. A member-checking exercise is also completed. |
| | | Reflect upon Weick's second Sensemaking Recipe | "How can we know what we think until we see what we say?" Weick (1979:133). |
| Phase 3 of empirical Study – Organisational Layer [3] | Thematic Analysis [4] | Define the organisational landscape | The groups should be reminded of the topic, and presented with the Individual and Group personal constructions and categories. |
| | | Present organisational landscape & promote questions to group | Each of the categories should be evaluated before viewing the decision landscape with a focus upon the interactions between categories, personal and group constructs. |
| | | Facilitate the exploration of meaning | A group discussion should be facilitated by the researcher, focused upon the meanings of the bipolar constructs. |
| | | Reflect upon Weick's third Sensemaking Recipe | How can we know what the decision landscape is becoming until we see our orientations and actions? |

## 3.13    CHAPTER SUMMARY

This chapter has set out the research approach aligned with the reviewed literature of Organisational Sensemaking and PCT.  The research design is focused upon exploring and capturing the ways that managers create and recreate decision landscapes within organisations.  To explore this phenomenon, this research project asked three questions: 1) How do individuals within a social context create and structure organisational decision landscapes?  2) How can the relational patterns of organisational decision landscapes be mapped? 3) What impact does a deeper understanding of the decision landscapes have upon the decision itself? It is argued that this research design is both entirely appropriate and sufficiently rigorous to address the research problem encapsulated by the research questions.

This chapter utilises Crotty's (1998) knowledge framework (refer to Figure 5) to explicitly explore and justify key research decisions that have informed the research planning, implementation and evaluation in a structured and consistent manner.

The philosophical and theoretical position of this study is aligned to the paradigm of pragmatic constructivism and, as such, producing knowledge does not mean having a true representation of reality but rather possessing ways and means to understand life (Albert et al., 2016).

To explore organisational decision-making and the flow of organisational life, the research was designed as a single embedded case study (Yin, 2009) and further employs individual and group interviews.  Each interview is supported by Kelly's (1955) Repertory Grid technique.  The data collection approach supports recent trends within organisational research and represents a shift from an objective, explanatory approach towards a subjective, exploratory approach.  As such, the data collection and analysis, although prominently qualitative in nature for the purpose of understanding the context or setting in which managers make decisions, is supported by a quantitative approach.  This overcomes the potential for biased interpretations made by the researcher and decision-makers, further allowing complex patterns within the data to be revealed and explored.

# CHAPTER 4    RESEARCH FINDINGS

*"…Every form of evaluation and analysis paints a specific picture of reality …While it is not possible to say which picture is 'correct', it is possible to say whether the picture is comprehensible, produced in a way which is theoretically sound, and in itself coherent, as well as whether it is useful for the purpose of the investigation" (Fromm; 2005:145)*

## 4.1    INTRODUCTION

This chapter presents the data collection and findings of the empirical investigations and comprises an exploratory phase and a descriptive phase. The results present snapshots of an ongoing organisational decision, demonstrating the consequences of unpacking and articulating the ways that decisions are created. Ultimately, the empirical investigations seek to go deeper than interpretations of how decisions are made, or what is known about the decision context. This chapter reveals what gives life to organisational decisions as personal and social decision recipes are captured and explored in order to uncover why decisions are made the way that they are.

## 4.2    THE EXPLORATORY PHASE

The exploratory study followed a structured procedure for each of the individual RepGrid interviews, drawing upon the lessons learnt and participant feedback gained from the pilot study (section 3.11). The rationale behind conducting this phase was to imitate the final research design within a similar context, gaining a familiarity with phenomena and determining the best data collection and analysis methods (Schutt, 2011; Creswell, 2013; Babbie, 2010). This provided an opportunity to make an assessment of the effectiveness of the proposed analysis and techniques, identify potential issues prior to the final research inquiry, and gain feedback from the individual and group interviews (Miles & Huberman, 1994).

### 4.2.1   Case context

The exploratory case organisation specialised in business solutions and was incorporated in 2005 to develop custom and packaged software solutions. Today, the organisation consists of three directors and an experienced team of four developers. The directors were

involved in the early stages of strategic growth planning and realised the potential benefits of taking part in this exploratory study. The need for inclusivity, openness and personal preferences was embraced in multiple perspectives within the organisation. The decision context was initially defined as the planning of an organisational growth strategy.

### 4.2.2    Access and sample

Access was negotiated through an independent consultant working with the organisation. The researcher was granted access to all directors (3) and developers (4), as a population sample was adopted (Greener, 2008; Collis & Hussey, 2013).

### 4.2.3    Repertory Grid procedure & analysis

The aim of the RepGrid interviews was to capture how the organisational decision-makers sense the decision. This was achieved through the definition of elements (growth activities) and the elicitation of bipolar constructs. The relationship between the elements and constructs was presented as a two-dimensional grid through rating scores between one and five. Each of the RepGrid interviews followed the procedure based upon Jankowicz's (2005); this is defined in Table 18, together with the reflective comments of the researcher.

### 4.2.4    An especially interesting interview

One of the interviews provided an unexpected outcome during the process of eliciting the personal constructs. The primary advantage of the RepGrid is that it reveals and explores personal goals, values and perceptions of a decision (Goffin, 2002; Kelly, 1963). One participant reached a very private and emotional position halfway through the construct elicitation process. The interview was paused. The participant reflected that their decisions on this topic were based upon their 'personal issues' (details removed due to confidentiality). They had not realised how much their private life was affecting their organisational decisions. The researcher explained that the participants had control over the process; they were able to regulate what was shared and to what level. The interview continued, but the focus of the interview changed to a higher level of abstraction. A number of sensitive bipolar constructs were removed as they were not relevant to the research. They were instead replaced with personal constructs that described distinctions and similarities between the organisational activities. This interview demonstrates the power of the RepGrid. However, it also highlights the need for a structured and mindful approach within the interviews.

Table 18: RepGrid interview procedure

| Description | Researchers reflections |
|---|---|
| **Pre-interview Planning** | |
| Interview documents were finalised: access schedule, confidentially agreements and ethical approval. | Participants did not have any issues with the documents; therefore, no amendments were made. |
| **Decision Topic** | |
| The single decision topic was introduced to the participants: "In your opinion, what are the most important factors that will facilitate growth over the next two financial years?" | All participants were able to fully relate to this decision. |
| **Interview Introductions** | |
| Introduction to the wider PhD research and the researcher. The researcher presented the work booklet, visual aids and cards discussing the purpose of the session, its requirements, and the overall process and outputs. | A structured introduction was provided. No major questions were raised. Three of the participants took comfort in the fact that the conversation was not recorded and that only the information written within the Work book and RepGrid template would be shared. |
| **Element Selection** | |
| The participants were then reminded of the decision topic using the first visual aid and asked to list their initial thoughts. | Participants took around 4-8 minutes to complete this task. Some explained each point to the researcher as they completed the activity whilst others completed this task quickly and individually. |
| Through a conversational approach each participant elicits their elements, which were finalised on blue card. | Only minor rewording was required to ensure that all elements were useable for the remaining procedure. Participants arranged their elements according to importance or least importance, together with a justification of the ranking and their importance within the work book. |
| **Constructs** | |
| A standard triadic sorting sequence was adopted: participants were asked, "Which two factors are similar and yet different from the third?" In response to the question, each participant was requested to write their similar and different statements within their work book. This ensured that the constructs were defined and remained in the participants' words. | When eliciting personal constructs, each of the participants found it relatively easy to discriminate the elements presented to them<br><br>The participants were able to systematically reflect upon the constructs, identifying themes and patterns, and recording their comments within the work book. |
| **Laddering and Pyramiding** | |
| The researcher and the participants selected two bipolar constructs for laddering and two for pyramiding activity. | These techniques were effective in obtaining more information about the participants' meaning for each of the bipolar constructs, increasing the detail and variety of constructs. |
| **Rating of Elements** | |
| Participants were asked to rate each of the elements against each bipolar constructs, using a five-point scale. Rating 1 has the closet match with the emergent construct and 5 matches the contrasting construct. | The researcher facilitated the scoring until the participants were confident in the rating process, when they were left to complete the exercise on their own. |
| **Feedback and Validation** | |
| The final RepGrid, summary comments and PCA Biplot were emailed to each decision-maker. They were invited to send feedback and confirmation that the report reflected their views at the time of the interview or make amendments where necessary. | |

### 4.2.5 Data analysis of exploratory study

The seven RepGrid interviews produced 67 elements (7-12 elements per decision-maker) and 48 constructs (5-9 constructs per decision-maker). The combination of qualitative and quantitative data within the RepGrids lent itself to a series of analyses that captured the meaning associated with the decision. Qualitative data provided insight into the participant's own meaning structures, values and preferences. The ratings within the RepGrid provided quantitative data that gave a measure for assessing the relationships between the elements and constructs (Goffin, 2002; Jankowicz, 2005; King et al., 2010).

### 4.2.6 Qualitative analysis

Table 19 characterises the descriptive richness of the thematic categories. This further illustrates the diverse ways in which each of the decision-makers sensed the organisational decision.

*Table 19: Thematic categories of individual RepGrid*

| Theme | Sub-themes |
|---|---|
| Team Dynamics | • Staffing levels<br>• Staffing skills<br>• Clearly defined roles & responsibilities<br>• New roles |
| Tool set for growth (current & future) | • Technical<br>• Working environment<br>• Developing current staff |
| Mindset for Growth (current & future) | • Organisational focus (openness, clear direction, expectations)<br>• Personal motivations (personal security, personal development, personal incentives, support, challenging environment, a balanced approach) |
| Processes | • Standardisations<br>• Efficiencies<br>• Freedom & flexibility |
| Growth direction | • New customers/business<br>• Current customers & accounts<br>• Management of projects<br>• Working with consultants |

The elements indicate *what* each of the decision-makers thought about the topic (Jankowicz, 2005). The elements were diverse, suggesting different perspectives and priorities within the decision-making group. Several themes became evident when the

decision-makers ranked and categorised 'what' they thought of the decision, providing a glimpse into the personal instances or occurrences that the decision-maker deemed relevant to the decision topic.

In order to gain an understanding of the individual decision-maker, a focus upon bipolar constructs was required. This provided indications of '*how'* the decision-maker thought about the elements (activities needed for growth) through a consideration of their personal values and drivers.

Decision-makers were asked to reflect upon their completed RepGrid and the combined themes. The following comments were made:

> *"Incentives would give me motivation to reach organisational growth targets." (SYB01)*

> *"I need more support from the directors in terms of sales and marketing". (SYB02)*

> *"I have more concern and emphasis on the here and now and improving organisation and efficiencies rather than growth strategies." (SYB03)*

> *"The organisation's internal resources are important; however, there is more of a need to have clearly defined roles for all of the team members." (SYB04)*

> *"A balance between technology and people is important for managing growth in a positive manner." (SYB05)*

> *"Growth needs to be challenging whilst sustainable." (SYB06)*

> *"Managing work and home life is vital as the company's expansion shouldn't be at the expense of the people who work here. There needs to be a balanced approach that everyone is committed to." (SYB07)*

A snapshot of the decision-makers' construct system has been gained through the RepGrid process. The descriptive analysis has provided an initial portrayal of the basic features of the elements and constructs contained within the seven decision-makers' RepGrids.

### 4.2.7 Biplot analysis for each decision-maker

Each decision-maker's elements and constructs are represented as points in the two-dimensional space. The space consists of two axes that run at a right angle to each other

and are mathematically independent of one another. They are termed 'components' and are based on the correlations between the decision-maker's elements and constructs. The correlations are often referred to as 'factor loadings' and visualise to what degree a given construct loads on, or correlates with, a given component. Put differently, the level of correlation is indicated by how closely the construct poles are located to the component axes. The closer together any two points are, the more strongly related they are within that decision-maker's construct system. Thus, two elements that are located close to each other are conceptualised as being similar. Additionally, the closer an element is to a construct pole, the higher the rating of that activity on that particular bipolar construct.

The relationships between the elements and the constructs were plotted graphically using the Idiogrid computer programme. The horizontal axis represents the first principal component (PC1) and the vertical axis represents the second principal component (PC2). The elements (dots) and constructs (grey lines) are plotted on the graph according to their loadings on PC1 and PC2.

### 4.2.8    Feedback from decision-makers

At the end of each RepGrid interview the decision-makers were asked to reflect upon the process and final RepGrid, assessing the effectiveness of the process in revealing their perceptions of the decision. The following comments were made:

> *"I was sceptical about the practical relevance of this process at first, but there are clear benefits of this research. It has allowed me to get to the bottom of what is driving my perceptions of what we need to do." (SYM02)*

> *"It was a difficult process, in terms of the ratings [the elements and constructs]. This illustrated how torn I am between my role as director and as a developer. This has also highlighted that I am not ready to discuss organisational growth until we organise and stabilise the day-to-day part of the business." (SYM03)*

> *"I found the process enlightening because at the outset I believed technology would be one of my core values but in actual fact my core values are people based." (SYB05)*

> *"I was shocked at how this process uncovered my personal feelings in the way that it did. This has helped me understand the impact and importance of gaining a work-life balance." (SYB07)*

### 4.3.2.3 Construct elicitation

Through the elicitation of the personal constructions, the decision-maker moves through the decision recipe considering three elements at a time until the decision recipe has been explored for the purpose of understanding 'how' the participant represents the decision. The constructs are bipolar and signify dimensions of meaning that a participant uses when thinking about their experiences (elements).  The nine elements elicited by the participants within Task 2, the presentation of the second visual aid, and labelled construct cards were used.  Using the following triadic pattern (Jankowicz, 2004), 123, 456, 789, 147, 258, 369, 159 and 357, each participant was asked "Which two factors are similar and different from the third in term of achieving growth for the organisation?"  The participant was requested to write the similar statement on a light-yellow card and the different one on an orange card.  This approach encouraged the participant to think aloud during this process and further provided the opportunity for the researcher to ensure that the elicited constructs were suitable.  The constructs remained in the words of the participants.

All participants engaged fully with the triadic elicitation process, defining differences and similarities effectively.  Where the construct did not represent a meaningful contrast, the participant was asked to further describe the opposite of emergent elicited constructs.  A number of pairs of constructs were elicited from the same triad of elements.  It is important to note that there is not a theoretical or a practical obligation to elicit both poles of a construct in a single step.  Participants who took longer to formulate the difference were supported with prequalifying statements to bring the topic back into focus.

Participants, on occasion, did use some constructs in a repetitive manner.  This was generally considered to be due to the construct versatility (Jankowicz, 2004; Tan et al., 2002).  Constructs were often repeated with increased frequency towards the end of the elicitation process when all relevant distinctions had been made.  Before such repetitions put a strain on the participants, it was explained that this was a normal process, as participants are often concerned that they should be able to formulate more discriminations (Jankowicz, 2004).  Each construct pair was revisited at the end of the elicitation process to ensure that the participants found them meaningful in terms of the elements, thus further checking the range of conveniences of both the elements and the constructs.  Any reformulations to the constructs were noted.

### 4.2.9 Exploratory lessons

The exploratory phase helped the researcher arrive at the following decisions regarding the research design and, in particular, the data collection and analysis tools and procedures to be used:

1. The use of the work book provided a formal structure as well as a data collection tool that ensured that the interview process was carried out in an organised and orderly fashion.

2. Visual prompts helped clarify each stage of the process and also helped reassure the participants with respect to what was expected within this alternative methodology.

3. Laddering and pyramiding exercises clarified meaning and improved the validation and variety of constructs. The participants found this process interesting and useful in uncovering hidden assumptions.

4. The aggregation of the results did not present the data in a way that maintained the idiographic nature of the RepGrid process or analysis. An alternative approach was needed for addressing the research questions, potentially a phased approach to the presentation of findings to the participants that incorporated a model or framework to explore the organisational decision landscape using the personal and social constructs of the decision-makers.

5. There was a need to explore further statistical analysis to be implemented within the main empirical research phase, in order to explore unseen patterns within the RepGrid data through quantitative analysis highlights

In summary, the exploratory phase assessed the effectiveness of the research design including process, tools and analysis for addressing the research problem. The RepGrid methodology allowed the participants to articulate their view of the decision based upon their experience, whilst avoiding interviewer bias. It further allowed the participants to think in a different way through the process of comparisons of differences and similarities, gaining a deeper understanding of the participants' decision recipe and the dimensions within it.

## 4.3 THE DESCRIPTIVE PHASE

The descriptive phase of this research is set within the UK's social housing sector and provides the context for this study. The researcher has previous work experience within

this sector and has witnessed its complexities and transformations since 2009.  The sector is faced with significant challenges including regulatory and welfare reforms, which impact on future funding and revenue streams, market consolidations and restructuring, and providers are being forced to offer a more diverse portfolio which may include market rented properties, part buy schemes, new build and sales.  In addition, the Homes and Communities Agency (HCA), Value for Money (VfM) and the Public Services Social Values Act 2012 are exerting further pressure on the sector to play an active role in the creation of sustainability and more socially inclusive communities.  Tenants are becoming increasingly demanding in terms of service expectations, engagement and empowerment as well as demanding higher-quality ranges of products and services.  Each of these factors is challenges in its own right but together they exert significant pressure on the housing sector as providers seeks to become more business-like, with the view that a more commercial focus would help to protect and grow social investment.

### 4.3.1    Planning of empirical study

*Task 1: Defining the Embedded Case Study and its parts* for the purpose of assessing the suitability of an organisation and its context for adoption within this research setting.  An embedded cases study approach permitted the exploration of the ways that decision landscapes were created within the organisation and provided rich insights into why the organisation made the decisions that it did.  This task focused attention on the core elements and their criteria, ensuring that the best opportunities to explore the defined research questions were met.  It also ensured that each element was represented correctly and justified.

*Consideration 1: The Organisation – A single embedded case study.*  This study seeks to explore an organisational decision within its natural context.  A North-West Maintenance and Construction contractor was selected as the context for the single embedded case study.  The organisation was originally formed in the 1980s as a family-owned business but is now a legal wholly-owned commercial entity that forms part of a leading housing and regeneration social landlord.

The researcher met with a director within the organisation during May 2015 who was motivated to explore how the senior decision-makers viewed the proposed growth strategy.  There was also an underlying agenda to understand multiple perspectives and the company's ability to influence, formulate and realise the future strategic agenda of the

organisation. The director explained that the organisation was due to prepare its three-year strategic plan and that in recent years the social housing sector had felt pressures from funding cuts and welfare reforms. The decision context centred on a growth strategy for the organisation.

The organisation was deemed suitable as it met the following criteria:

- It was involved in an important and current decision.
- Real-time access to all key decision-makers involved in making the decision was to be provided. This included access for individual and group interviews.
- Access to all individuals directly involved with the same organisational decision was provided.

*Consideration 2: The cases – social context.* The cases within this study are defined as social grouping within the organisation. From an organisational structures perspective, two groups representing directors and senior managers were selected. Both groups were identified as core contributors in both the formulation and implementation of strategic growth. Lower levels of management (supervisors) within this organisation were not deemed relevant as they we not involved with the decision on organisational growth.

*Consideration 3: The embedded cases – The Managers.* Each case/group was represented by several embedded cases (individual decision-makers). Ten managers were responsible for making decisions on the proposed new Strategic Statement. The groups consisted of the four directors and the six senior managers. All participated in this study making it a full population study as all individuals and groups involved in the organisational decision were included.

The criteria for selecting embedded cases were:

- All embedded cases should be key decision-makers; in other words, those who influence an organisational decision, not those influenced by it.
- All embedded cases needed to be able to relate to the quintain and provide an opportunity to learn about it (Yin, 2013).
- The embedded case and the case should be considered as a whole and selected through a purposeful sampling approach.

- All participants should have an interest and a willingness to participant openly and honestly within the research study.

*Consideration 4: The quintain – The Decision Landscape.* The focus of an embedded case study shifts from "What helps us understand the case?" towards "What helps us understand the quintain?"(Yin, 2013; Stake, 1995). The quintain is the phenomenon under investigation, by its very nature it is a moving target, one that is not too narrow or to broad. This study defines it as 'the organisational decision landscape' which is created through the personal and social decision recipes. This study adopts a total population sample, which provides an in-depth approach that considers several snapshots within a decision process. Since the total population sample involves all decision-makers, it is possible to get deep insights into organisational decision landscapes. This provides the advantage of reducing the risk of missing potential insights from decision-makers who were not included. Whilst the approach is applicable in addressing the research questions, the analysis cannot be generalised as the findings will only be appropriate to this case study at this moment in time.

*Consideration 5: The unit of analysis – Bipolar construct.* The unit of analysis is defined as the 'decision-makers' bipolar constructs' (for a detailed explanation of personal constructs, please see section 2.5). The bipolar constructs represent a meaningful dimension and, when considered as a construct system, they represent how the decision-maker creates their own decision recipe and their personal conceptions of the organisational decision. Through the analysis of personal constructs it is possible to clarify the personal meaning and actions (Kelly, 1955; Butt 2004) of individuals, within their social context, as they build assumptions of the decision and act accordingly.

*Task 2: Decision Selection.* A suitable decision, defined as a single question, was formulated that permitted the use of the RepGrid (Formm, 1995). During the initial meeting with the director, the decision of interest was defined as the organisation's strategic growth strategy. The researcher and the director discussed several possible variations of this decision and phased the options as questions. This included the following:

1. Which workstreams (Business Units) should be expanded to their profitability and potential for growth?

    This was not deemed to be a suitable topic as not all managers can relate to all of the workstreams, regarding operational and strategic information.

The elements would become workstreams and may, therefore, have been difficult to contrast.

2. What action plans needed to be implemented to address strategic growth over the next 3-5 years?

   This question was deemed to be too broad for investigation.

3. How could the organisational culture be changed to embrace organisational growth?

   This was deemed to be too narrow for the investigation.

4. What were the organisational barriers to growth?

   This topic seemed to be the most interesting for the director as she would like to see how others perceive barriers to growth.

5. What have previously been the barriers to implementing such a strategy and are they still relevant today?

   This topic was not feasible within the research process as there were a number of new staff members who would not be able to relate to the question.

Rewording question 4 was deemed to be the most viable option for both the researcher and the director. However, the pilot review indicated that a positive topic would be more effective. The topic was therefore rephrased to "Define the factors needed for organisational growth". Although this statement was short and structured, it was not effective for use as a Rep Grid topic as it failed to define the elements used. Therefore the question was split into parts asking "What is meant by each phase?"

[Define the[1]] [factors[2]] [needed for[3]] [organisational[4]].

1. Define the
   a. Director: There is a need to understand 'how' each manager sees organisational growth.
   b. Researcher: What do you mean by 'how'?

     c. Director: This prompts me to consider a list of what I think needs to be done.

     d. Researcher: Shall we make it clear in the question that we are concerned with their personal opinions rather than what should or will be done?

2. Factors

     a. Researcher: What do you mean by 'factors'?

     b. Director: What is stopping us from changing and growing the organisation?

     c. Researcher: Can this be rephrased to focus upon positives rather than a negative?

     d. Director: Then I would consider the factors to be activities, actions, the things we need to do to change.

3. Needed

     a. Researcher: How could this be rephrased? What is the purpose of asking what each manager thinks?

     b. Director: To understand what we need to do in order to implement a new and challenging growth strategy.

     c. Researcher: So the focus is on what should be implemented?

     d. Director: Yes, the suggestions need to be practical and relevant to this organisation.

4. Organisational growth

     a. Researcher: We have just discussed that you are interested in implementation of growth for this organisation, but what is growth for the organisation?

     b. Director: The current Group Corporate Plan 2015-2018 defines [it] [refers to plan]: "We are ambitious in our growth aspiration and we will significantly expand our existing range of products and services, targeting new sectors and companies". This organisation needs to [refers to plan] "evaluate and implement requirements to invest in order to support growth and develop funded growth strategies". This research should help us understand perceptions relating to this.

     c. Researcher: Have targets or timescales been set?

     d. Director: Yes [refers to plan]; however, how this is to be achieved has not been planned.

e.  Researcher: Shall we therefore define the timescale as 3-5 years and the growth as being double the current income at the end of the five years, as defined within the Board engagement and corporate planning session? This will make the discussion and topic more tangible and comparable.

f.  Director: Yes, this reduces the confidentiality issues, whilst providing everyone with a clear focus.

The final decision question applied throughout the study is "What do you think are the[1]] [activities[2]] [that need to be implemented[3]] [in order to double the company's current income within a three-year period?[4]].

*Task 3: Negotiating and Finalising Access.*  All interviews were scheduled off site at a nearby Business Centre where rooms were hired in order to ensure minimum distraction during the interviews whilst also reducing the disruption to day-to-day management.  Discussions were held in real time and aligned with key business meetings.  A maximum of three interviews were arranged per day to allow time for eyeball analysis and to reflect upon interviews.  The decision-makers details can be found in Table 20.

The director within the organisation sent invitations together with the briefing document containing purpose, procedure and approximate duration of the interviews.  This ensured that each decision-maker was aware of what to expect and how much time they needed to commit during the process.  The topic of each repertory grid interview was not provided prior to the interviews.  This strategy was adopted in order to capture the decision-makers' first sensemaking interpretations of the topic.

*Table 20: Interview schedule*

| Decision-maker/Group ID | Job Title | Group | Interview duration |
| --- | --- | --- | --- |
| Decision-maker A | Managing Director | SMT | 75 min |
| Decision-maker B | Commercial Manager | MMT | 65 min |
| Decision-maker C | Contract Manager | MMT | 50 min |
| Decision-maker D | Planned Maintenance Director | SMT | 90 min |
| Decision-maker E | Operations Director | SMT | 55 min |
| Decision-maker F | Contract Manager | MMT | 45 min |
| Decision-maker G | Director of Business Services | SMT | 80 min |
| Decision-maker H | Contract Manager | MMT | 55 min |
| Decision-maker I | Business Performance Manager | MMT | 65 min |
| Decision-maker J | Contract Manager | MMT | 40 min |
| SMT Green Group | | | 50 min |
| SMT Blue Group | | | 50 min |
| MMT Red Group | | | 65 min |
| MMT Yellow Group | | | 65 min |
| Feedback meeting | | | 75 min |

*Task 4: RepGrid tool and workshop materials.*  At this stage, work book and visual aids were tailored.  This approach was beneficial for a number of reasons.  Firstly, it assumed that the decision-makers did not have prior knowledge of the Rep Grid.  The work book provided a non-academic and supportive step-by-step guide which supported the researcher and decision-maker conversation.  Secondly, the RepGrid template can be overwhelming and create uncertainty in relation to the purpose and outcome of the interview.  Some decision-makers become distracted by the RepGrid and finding 'correct' answers for the template.  Third, the work book acted as a data collection tool, whereby the decision-makers' own words and reflective thoughts were record, reducing the potential for researcher bias when taking notes or transcribing comments.  Finally, the work books and RepGrid template were designed to uncover the often private and unshared thoughts of the decision-makers, in a manner in which the decision-makers were in control of what, and how much, information was revealed and shared.  The discussions within the interviews were therefore not recorded and remain private.

In additional to the work book, the following were produced for each interview: an A1 RepGrid template and visual aids, together with colour-coded referenced element.  This approach ensured that elements were coded in the order that they were elicited, whilst also giving the decision-maker the flexibility to move the cards during the exercise.  The emergent constructs were coloured yellow and the implicit constructs were orange.  Each pair of constructs was coded in the order that they were elicited.  An advantage of this approach was that it resulted in the elements and constructs being transferred to the A1 RepGrid Template in an efficient and error-free manner.

*Task 5: Formalising agreements and planning the following phases.*  To conclude this phase, agreements covering ethics and confidentiality were finalised by all parties.

### 4.3.2   Phase 1: The individual layer

This phase explored the ways that managers create and shape part of the organisational decision landscape, through the process of construing and the extraction of personal decision recipes.  The focus is on the individuals' decision recipe as decision-makers address a signature sensemaking question of "How can <u>I know</u> what <u>I think</u> until <u>I see</u> what <u>I say</u>?" (Weick (1979:133).)

Phase 1 is presented as two sections: Phase 1A describes the data collection process and initial qualitative findings of the eyeball and process analysis.  it also provides an in-depth account of the individual RepGrid interviews, specifically the unfolding story of the content, structure and conclusions of each manager's decision recipe.  Process analysis and eyeball analysis (Janowicz, 2004) are used to summarise the decision-makers' meaning and this allows inferences to be drawn from them.  This enables insights into the ways decision-makers create their decision recipe through their own experiences and expectations.  Significant extracts from the decision-makers' and researcher's reflections are presented.  Phase 1B presents the idiographic data analysis.  There is a focus upon the decision-makers' perspective and viewpoints, personal reflections in and on action for the purpose of documenting and understanding what they think they face when making a decision, and the personal meaning created and attached to the decision.

### 4.3.2.1  Phase 1A: interview introduction

Decision-makers were provided with essential information relating to the researcher, the wider research project, an overview of the organisational intervention and the expectations

of how the process would benefit the decision-maker. Emphasis was placed on the unique approach of the RepGrid methodology, as it is a way of carrying out an interview in a highly structured manner, using the interviewee's own language and setting out their responses within the booklet and a final grid template.

The topic for each of the RepGrid interviews is: "What do you think are the activities that need to be implemented by the organisation, to achieve the targeted turnover of £35m within the next three years?" As the topic was finalised within the pre-phase without consultation with the decision-makers, it was therefore vital to the success of the methodological outputs that each decision-maker was able to fully relate to and comprehend the topic in question. A short discussion of the decision-maker's perceptions of the topic and introduction of the first of the visual aids (the topic card) enabled the start of the conversational interview process. Decision-makers were asked to make their initial comments regarding the topic within their work book. This reduced the effect of potential researcher bias.

Nine of the 10 decision-makers provided a fully engaged and focused discussion. (decision-makers are identified by the codes in the brackets.)

> *"I have witnessed the organisation going through changes and growth, especially over the past few years. We have always been successful and hopefully will continue to be." (C)*

> *"There is a current need to address how the organisation will grow and the impact that this will have on its current relationships within the group." (G)*

> *"The topic of change and organisational growth was one of the discussion points within my interview. The organisation is clearly in a period of change. So I am not surprised that I am involved within this process." (H)*

Of the nine decision-makers, three demonstrated curiosity about how this intervention would clarify and share the perceptions of others and the differences that may exist between the managers.

> *"I would be interested in understanding how my views of growth differ from the contracts mangers." (A)*

*"There are many different perspectives on the organisation's future direction and how and what is the best way to grow. It will be interesting to understand these different perspectives."* (B)

*"This process will be interesting to see what others think, instead of just talking about growth."* (E)

As decision-makers focused their reflections upon their current role within the organisation, their current frustrations relating to the topic of organisational growth and change began to materialise.

*"Changing the mindset of individuals is essential but this is currently a barrier. It is important if I am going to manage change that I understand the mindset of others."* (D)

*"Managing the day-to-day [activities] is my primary focus and ensuring we have the resources to grow."* (E)

All decision-makers were fully familiar with the topic and, a number of comments could be interpreted as signalling that not all decision-makers were fully engaged with either the process (F) or with the need for strategic growth (J), stating that:

*"I am unsure on the reason why a person such as myself is involved. I am a little unsure on what I have to offer."* (F)

*"There is nothing wrong with how the company is now."* (J)

### 4.3.2.2 Element elicitation

The decision-makers' initial views of the topic (Task 1) are used as a starting point for this task, facilitated by the researcher. Each decision-maker generated a list of the 'activities' related to organisational growth. After completing their individual lists, decision-makers wrote the activity they believed to be the most relevant one on their list on a blue element card. All decision-makers were able to use the element elicitation strategy to define all nine elements related to organisational growth from their individual lists.

The decision-makers then reflected in their work books on what they viewed organisational growth to be in relation to the nine elements.  This was facilitated by two activities:

- Ranking the elements in order of personal importance with 1 being the most important to the decision-maker and 9 being the least important.
- Grouping the elements in terms of similar categories and writing the category name on a card with a short commentary on the reverse of the card.

Three themes emerged from the decision-maker element categorisation: operational, commercial and appetite for growth.  Through the interpretation of the elicited elements and the decision-makers' categorisations, decision-makers' decision recipes were weighted towards either an operational perspective or a strategic perspective.  Such dynamics within a group tend to support the realities of organisational life and the organisational roles within them.

**Element Categorisation Theme 1: operational characteristics**

Operational activities can be characterised as tactical, short term, or routine in nature. They often describe *how* the organisation operates.  Operational characteristics are defined by the decision-makers in numerous ways:

| | |
|---|---|
| *"Financial controls & understanding"* (A) | *"Delivery and capacity"* (H) |
| *"Operational capacity"* (A) | *"Reducing risks"* (I) |
| *"Become more efficient"*  (C) | *"Impact [on] what we currently do"* (J) |
| *"Ability to deliver"* (E) | |

Four participants (B, D, F & G) did not consider operational characteristics within their decision recipes for organisational growth.  Interestingly, these four decision-makers were all relatively new to the organisation.

decision-makers also identified the need to consider human resources within the decision recipes:

| | |
|---|---|
| *"Having the right people in place"* (C) | *"Getting people in place"* (F) |
| *"Knowledgeable team"* (H) | *"Positive leadership"*  (I) |

Again, some decision-makers did not consider this within their decision recipes (B, D, E, G & J).

**Element Categorisation Theme 2: commercial characteristics**

Commercial activities demonstrate characterises that relate to strategic/long-term planning or relationships. This involves the planning of visions, missions and objectives, and compiling analyses of the organisation and its relationship to the environment in which it competes, often with a future outlook. It is concerned with '*what*' the organisation does.

The commercial theme was represented by decision-makers as: represents a large number of element categories:

*"Commercial offering" (B)*       *"Senior decisions" (F)*

*"Expand in new workstreams" (C)*       *"Agreement of direction" (G)*

*"Market knowledge" (D)*       *"Commercial focus" (G)*

*"Commercial team" (D)*       *"Connections to new markets" (G)*

*"Planning forward" (E)*       *"Commercial focus" (H)*

*"Informing" (E)*       *"Confident professional image" (I)*

*"Working together" (F)*

Only two decision-makers did not consider commercial perspectives within their decision recipes (A & J).

**Element Categorisation Theme 3: appetite for growth**

The third theme represents the decision-makers' appetite or attitude towards organisational growth. This is often discussed in terms of change, at either an organisational or a personal level. This creates the context within which the decision-makers will create and lead the organisation's growth strategy.

The need to change mindsets to embrace growth is acknowledged as well as a consideration of whether growth is needed at all:

*"Acceptance that change is needed" (B)*

*"Changing mindset" (D)*

*"Do we want growth?" ( J)*

At this stage of RepGrid interviews, nine of the 10 decision-makers remained positively focused upon the topic of organisational growth. The elements of decision-maker J suggest that, while they are able to describe the activities needed for growth, their category labelling strongly suggests that they do not embrace the need for growth.

### 4.3.2.3 Construct elicitation

Through the elicitation of the personal constructions, the decision maker moves through the decision recipe considering three elements at a time until the decision recipe has been explored for the purpose of understanding 'how' the decision-maker represents the decision . The constructs are bipolar and signify dimensions of meaning that a decision-maker uses when thinking about their experiences (elements). The nine elements elicited by the decision-makers within task 2, were presented together with the second visual aid, and labelled construct cards were used. Using the following triadic pattern (Jankowicz, 2004); 123, 456, 789, 147, 258, 369, 159 and 357, each decision-maker was asked "which two factors are similar and different from the third in term of achieving growth for the organisation?" The decision-maker was requested to write the similar statement on a light yellow card and the difference on the orange card. This approach encouraged the decision-maker to think aloud during this process and further provided the opportunity for the researcher to ensure that the elicited constructs were suitable. The constructs remained in the words of the decision-makers.

All decision-makers engaged fully with the triadic elicitation process, defining differences and similarities effectively. Where the construct did not represent a meaningful contrast, the decision-maker was asked to further describe the opposite of emergent elicited constructs. A number of pairs of constructs were elicited from the same triad of elements. It is important to note that there is not a theoretical or a practical obligation to elicit both poles of a construct in a single step. Decision-makers who took longer to formulate the difference were supported with prequalifying statements to bring the topic back into focus.

Decision-makers, on occasion, did use some constructs in a repetitive manner. This was generally considered to be due to the construct versatility (Jankowicz, 2004; Tan et al, 2002). Constructs were often repeated with increased frequency towards the end of the

elicitation process when all relevant distinctions have been made. Before such repetitions put a strain on the decision-makers, it was explained that this was a normal process as decision-makers are often concerned that they should be able to formulate more discriminations (Jankowicz, 2004). Each construct pair was revisited at the end of the elicitation process to ensure that the decision-makers found them meaningful in terms of the elements, thus further checking the range of conveniences of both the elements and the constructs. Any reformulations to the constructs were noted.

The numbers of constructs ranged between 7 and 12 elicited constructs, plus 1 supplied construct (Operational capacity vs Governance). The average number of constructs elicited was 10, which is considered acceptable (Jankowicz, 2004; Tan et al, 2002). The total number of individual constructs for all individuals was 107 constructs.
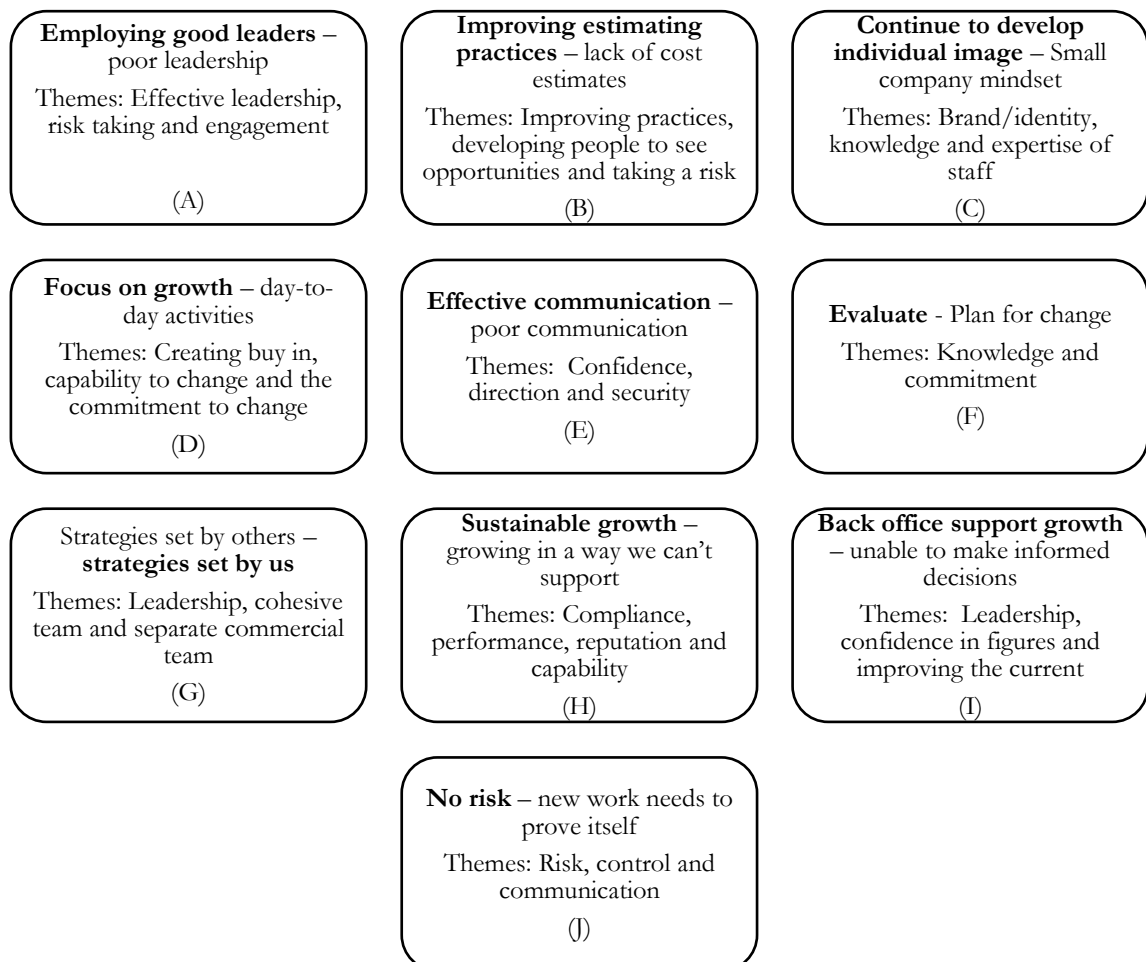
| | | |
|---|---|---|
| **Employing good leaders** – poor leadership<br><br>Themes: Effective leadership, risk taking and engagement<br><br>(A) | **Improving estimating practices** – lack of cost estimates<br><br>Themes: Improving practices, developing people to see opportunities and taking a risk<br><br>(B) | **Continue to develop individual image** – Small company mindset<br><br>Themes: Brand/identity, knowledge and expertise of staff<br><br>(C) |
| **Focus on growth** – day-to-day activities<br><br>Themes: Creating buy in, capability to change and the commitment to change<br><br>(D) | **Effective communication** – poor communication<br><br>Themes: Confidence, direction and security<br><br>(E) | **Evaluate** - Plan for change<br><br>Themes: Knowledge and commitment<br><br>(F) |
| Strategies set by others – **strategies set by us**<br><br>Themes: Leadership, cohesive team and separate commercial team<br><br>(G) | **Sustainable growth** – growing in a way we can't support<br><br>Themes: Compliance, performance, reputation and capability<br><br>(H) | **Back office support growth** – unable to make informed decisions<br><br>Themes: Leadership, confidence in figures and improving the current<br><br>(I) |
| | **No risk** – new work needs to prove itself<br><br>Themes: Risk, control and communication<br><br>(J) | |

*Figure 8: Decision-makers' important constructs*

Once the construct elicitation process had been completed the decision-makers completed task 3 within the work book which aimed at identifying the most important bipolar

construct.  Figure 8 summaries these themes, with the most important constructs indicated in bold.

**4.3.2.4 Laddering and pyramiding**

Decision-makers used their elicited bipolar constructs to further explore their personal views, through the clarification of the relations between the constructs.  The questions of 'why?', 'how' and 'in what way?' are part of a process of improving detail and variety rather than indicating any inadequacies in the participants' responses.  This revealed further meaning and the structure of their decision recipes.

Three decision-makers (C, E & J) did not initially understand the purpose of the technique or did not engage with the conversational approach.  Therefore, the template technique was adopted and the resulting laddered and pyramided constructs were added to the back of the construct cards.

The decision-makers were once again asked to reflect upon this exercise within their work book.  In some cases, as decision-makers saw their value priorities, there was a sense of revelation or shock:

> *"If you talk to others, I don't think they'd be surprised at all by the previous cards [initial constructs].  But this exercise has surfaced that I believe all of this [pointing to the initial constructs] is important due to job security and pride that I am part of a professional organisation.  I haven't thought of this decision in that way before." (B)*

> *"I would say that this highlights what motivates me.  The need for change and the ability to overcome challenges is important, but also it's about changing attitudes and bring[ing] people with you.  From this, people could perceive me as impatient, as a quick pace of change is important, otherwise we will get stuck in the day-to-day management of the organisation." (D)*

> *"Others have previously commented that I am not a risk taker; I have tended to agree with this, although I find the prospects of growth exciting and rewarding.  This activity has highlighted to me that it is not about risk, but about making sure that we have a plan that can be implemented so we can move forward in a clear direction." (E)*

*"My experience of growth without confidence in data and a reliable back office is failure.*
*Without reliable information we cannot develop an outside perception of success.  This*
*is what is important: others need to have confidence in our growth."  (I)*

The reflections of the decision-makers are an indication of an apparent surprise in the constructs arising out of this activity.  Yet, once they viewed them, there seemed to be an acceptance and reassurance that this was a more accurate reflection of what growth meant to them.  A number of informants said they found they had revealed more within this session than they would normally do within management meetings, further commenting on a curiosity to see what others said and whether this would help them understand others more:

*"This activity makes me wonder that maybe sometimes what we say it not actually what*
*is meant."  (D)*

The technique, as a means of extracting and modelling decision-makers' deeper values or beliefs, has proved to be effective.  The qualitative approach has allowed decision-makers to further extract additional constructs as they often referred to the consequences or personal values of the bipolar constructs.

### 4.3.2.5 Ranking

The fifth task explores the ways that elements and constructs function within the decision-makers' decision recipes, through the consideration of the structure and content relationships.  The exploratory study demonstrated that the RepGrid Template can become a distraction to the decision-makers or that they can become focused upon giving the 'right' answers.  Therefore, this task was modified: rather than populating the whole grid, the researcher broke down the process into multiple stages.

This task was initiated with the researcher presenting the RepGrid template and the rating visual aid.  Element 1 was placed in front of each decision-maker together with the first bipolar construct.  Decision-makers rated element 1 according to the five-point scale.  The activity was repeated with all elements for the first bipolar construct.  The rating of the RepGrid needs to be a social process between the decision-maker and the researcher.  This creates an opportunity for the decision-maker to explain their ratings and helps the researcher to understand the connections, elements and constructs.  The discussions also

reduced the risk of elements being rated incorrectly and sustained decision-maker engagement.

The grids were rated using a five-point rating scale and decision-makers were able to successfully rate all of the constructs against the elements. However, decision-maker A was unable to rate element E08-A08 (Understanding funding for new contracts) against all of the constructs. As this omission may have impacted the quantitative analysis of the results, this element was removed from further analysis, following the guidance of (Jankowicz, 2004). Results before and after the removal of the element were assessed and discussed with the decision-maker for transparency. Decision-maker A's completed RepGrid is detailed in Figure 9 for illustrative purposes. The RepGrid consists of the following information:

A. The elicited elements are displayed at the top of the grid sheet. Each element has its own unique reference number, indicated in grey and each starting the letter E.

B. The elicited personal constructs are listed in the order they have been elicited, row by row. Each personal construct has been given a unique reference number starting with the letter

   B1   The left hand side represents the emergent construct pole

   B2   The right hand side represents the implicit construct pole.

C. One side of each personal construct has been underlined, this represents the decision-makers preferred pole.

D. Additionally, each decision-makers has highlighted one personal construct pole that they believe is most important to the decision topic. This is presented in bold on the figure and highlighted in green.

E. The rating are indicated by the numbers within the grid, they too have been colour coded to assist with the visualisation of the RepGrid
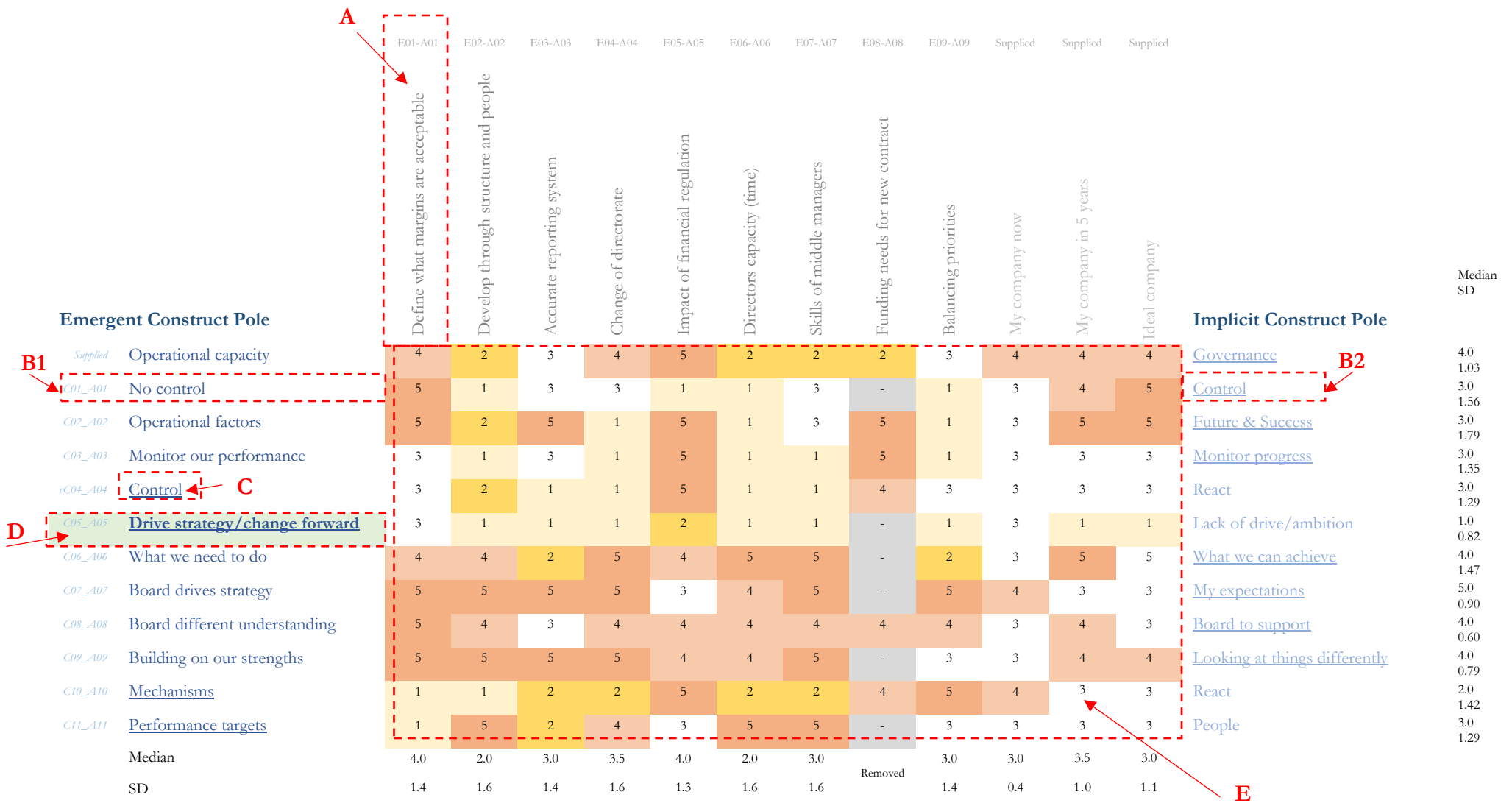
Figure 9: Decision-maker A's RepGrid

**Emergent Construct Pole** / **Implicit Construct Pole**

| | | Define what margins are acceptable (E01-A01) | Develop through structure and people (E02-A02) | Accurate reporting system (E03-A03) | Change of directorate (E04-A04) | Impact of financial regulation (E05-A05) | Directors capacity (time) (E06-A06) | Skills of middle managers (E07-A07) | Funding needs for new contract (E08-A08) | Balancing priorities (E09-A09) | My company now (Supplied) | My company in 5 years (Supplied) | Ideal company (Supplied) | Implicit Construct Pole | Median / SD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Supplied | Operational capacity | 4 | 2 | 3 | 4 | 5 | 2 | 2 | 2 | 3 | 4 | 4 | 4 | Governance | 4.0 / 1.03 |
| C01_A01 | No control | 5 | 1 | 3 | 3 | 1 | 1 | 3 | - | 1 | 3 | 4 | 5 | Control | 3.0 / 1.56 |
| C02_A02 | Operational factors | 5 | 2 | 5 | 1 | 5 | 1 | 3 | 5 | 1 | 3 | 5 | 5 | Future & Success | 3.0 / 1.79 |
| C03_A03 | Monitor our performance | 3 | 1 | 3 | 1 | 5 | 1 | 1 | 5 | 1 | 3 | 3 | 3 | Monitor progress | 3.0 / 1.35 |
| rC04_A04 | Control | 3 | 2 | 1 | 1 | 5 | 1 | 1 | 4 | 3 | 3 | 3 | 3 | React | 3.0 / 1.29 |
| C05_A05 | **Drive strategy/change forward** | 3 | 1 | 1 | 1 | 2 | 1 | 1 | - | 1 | 3 | 1 | 1 | Lack of drive/ambition | 1.0 / 0.82 |
| C06_A06 | What we need to do | 4 | 4 | 2 | 5 | 4 | 5 | 5 | - | 2 | 3 | 5 | 5 | What we can achieve | 4.0 / 1.47 |
| C07_A07 | Board drives strategy | 5 | 5 | 5 | 5 | 3 | 4 | 5 | - | 5 | 4 | 3 | 3 | My expectations | 5.0 / 0.90 |
| C08_A08 | Board different understanding | 5 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 3 | Board to support | 4.0 / 0.60 |
| C09_A09 | Building on our strengths | 5 | 5 | 5 | 5 | 4 | 4 | 5 | - | 3 | 3 | 4 | 4 | Looking at things differently | 4.0 / 0.79 |
| C10_A10 | Mechanisms | 1 | 1 | 2 | 2 | 5 | 2 | 2 | 4 | 5 | 4 | 3 | 3 | React | 2.0 / 1.42 |
| C11_A11 | Performance targets | 1 | 5 | 2 | 4 | 3 | 5 | 5 | - | 3 | 3 | 3 | 3 | People | 3.0 / 1.29 |
| | Median | 4.0 | 2.0 | 3.0 | 3.5 | 4.0 | 2.0 | 3.0 | Removed | 3.0 | 3.0 | 3.5 | 3.0 | | |
| | SD | 1.4 | 1.6 | 1.4 | 1.6 | 1.3 | 1.6 | 1.6 | | 1.4 | 0.4 | 1.0 | 1.1 | | |

*Figure 9: Decision-maker A's RepGrid*

For the final time, decision-makers were to reflect upon the final RepGrid template. The work book provided a number of prompt questions including a short statement about what the RepGrid says about the way the decision-maker thinks about the topic, similarities in the way that elements and constructs are rated, and the interview process.

The conclusions of the RepGrid interview hint at the judgements and conclusions that are drawn for each decision landscape:

> *"Capacity is an issue. It is a chicken or egg situation. Do we get the right people in place or new contracts? I feel that we should focus upon getting things in place first, so we can be successful and deliver what we say we will."* (A)

> *"Most factors impact what we current do – not sure if it is worth the risk."* (J)

> *"I tend to focus on the workloads of my team and how to overcome challenges."* (C)

> *"A key theme throughout is having confidence in what we do. It is important that others are confident that we can deliver what we say we can, but more importantly [that] the back office is also effective."* (I)

> *"Others need to understand the need for growth, the reasons this growth strategy is important. Growth is about capability not capacity. Ops need to understand this."* (D)

> *"My views mainly relate to my previous employers; I wish we could be more like them and move away from the family image."* (B)

Decision-makers were asked to reflect upon the RepGrid process. The following comments were provided:

> *"Interesting process; I am surprised I was able to produce the detail in the grid."* (F)

> *"This shows how everything is linked."* (G)

> *"Sustainable growth appears to be really important but it wasn't one the factors that I listed first."* (H)

*"Growth is exciting and rewarding.  I guess I think of the risks, but I can see from this exercise that what is important to me is a clear and defined path to ensure success."*
*(E)*

### 4.3.2.6 Phase 1B: Idiographic data analysis

The descriptive qualitative analysis completed during Phase 1A provided an account of what and how the decision-maker thinks based upon the decision-maker's reflections and the researcher's observations made during the RepGrid interviews.  The purpose of Phase 1B is to further examine the structure and relationships within the RepGrid, illuminating further idiographic characteristics through the use of quantitative data analysis.  This phase reveals complex relationships and patterns within the data

The analysis presented within Phase 1B has been completed within a series of related tasks, this is then summarised for each decision-maker as their decision recipe in section 4.3.2.9.

### 4.3.2.7 Judgements within the decision recipes

The way that each decision-maker makes distinctions represents meanings that are based upon their personal and unique experiences.  This is represented by the ways that the decision-makers locate the elements against their bipolar personal constructs.  Descriptive analysis is used to provide signposts of meaningfulness, superordinacy of constructs and stability within the decision recipe, as constructs are analysed to assess for skew; in other words, where elements are used substantially more on one pole than the other.  This indicates a preference for one side of the bipolar pole and can be said to be lopsided (Bannister & Salmon, 1967; Chiari , Mancini, Nicolo & Nuzzo, 1990).

### 4.3.2.8 Inter-relationships of decision recipes

A correlation analysis (two-tailed Pearson's) was performed providing further analysis of the RepGrid for the purpose of indicating possible relationships between each decision-maker's personal constructs.  The procedure was informed by Field (2009) and Pallant (2013).  Table 21 provides an illustration of the importance of utilising a correlation analysis to illuminate relationships that have not been identified within the initial qualitative analysis.  This illustrates the relationships within decision-maker A's decision recipe.

*Table 21: Correlation analysis for decision-maker A*

Pearson Correlation

| | | A | A01 | A02 | A03 | A04 | A05 | A06 | A07 | A08 | A09 | A10 | A11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | PC | 1 | | | | | | | | | | | |
| | Sig. | | | | | | | | | | | | |
| A01 | PC | .381 | 1 | | | | | | | | | | |
| | Sig. | .247 | | | | | | | | | | | |
| A02 | PC | .538 | .603* | 1 | | | | | | | | | |
| | Sig. | .088 | .050 | | | | | | | | | | |
| A03 | PC | .788** | .277 | .834** | 1 | | | | | | | | |
| | Sig. | 0.004 | .409 | 0.001 | | | | | | | | | |
| A04 | PC | -.723* | .005 | .473 | 0.744** | 1 | | | | | | | |
| | Sig. | 0.012 | .989 | .142 | .009 | | | | | | | | |
| A05 | PC | 0.496 | .264 | .315 | .510 | .491 | 1 | | | | | | |
| | Sig. | .120 | .433 | .345 | .109 | .125 | | | | | | | |
| A06 | PC | .000 | .272 | .000 | -.125 | -.131 | -.206 | 1 | | | | | |
| | Sig. | 1.000 | .419 | 1.000 | .713 | .700 | .543 | | | | | | |
| A07 | PC | -.548 | -.155 | -.482 | -.641* | -.609* | -.049 | -.374 | 1 | | | | |
| | Sig. | 0.081 | .649 | .133 | .034 | .047 | .886 | .258 | | | | | |
| A08 | PC | -0.44 | -.058 | -.341 | -.179 | .094 | .184 | .280 | .283 | 1 | | | |
| | Sig. | 0.898 | .865 | .693 | .599 | .784 | .589 | .404 | .399 | | | | |
| A09 | PC | -0.259 | .230 | .155 | -.171 | -.503 | -.211 | .322 | .447 | .326 | 1 | | |
| | Sig. | 0.442 | .495 | .650 | .614 | .114 | .533 | .333 | .168 | .328 | | | |
| A10 | PC | .486 | -.309 | .032 | .408 | .662* | .117 | -.357 | -.481 | -.297 | -.822** | 1 | |
| | Sig. | .130 | .356 | .925 | .213 | .027 | .732 | .281 | .134 | .375 | .002 | | |
| A11 | PC | -.640* | -.545 | -.654* | -.639* | -.451 | -.551 | .460 | .078 | -.035 | .090 | -.159 | 1 |
| | Sig. | .034 | .083 | 0.29 | .034 | .164 | .079 | .155 | .819 | .918 | .793 | .640 | |

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

From Table 21, it is possible to identify four significant correlations (highlighted in orange). Due to the bipolar nature, each correlation relationship will have two descriptions. The first grouping represents the preferred pole of the bipolar constructs, within this group the most significant relationship is between future & success and monitor progress [(-)C02_A02 – (-)C03_A03]. The second most significant relationship is between looking at things differently and putting mechanisms in place [(-)C09_A09 – C10_A10. Governance is significantly related to monitoring progress [(-)AS – (-)C03_A03] and lastly monitoring progress and ability to react [(-)C09_A03 – (-)C04_A04] is strongly correlated.

The polar side of the significant correlations is represented by the following strong correlations. The strongest relationship is described as operational factors and monitoring of performance C02_A02 & C03_A03. The second strongest relationship is between building on our strengths and ability to react [C09_A09-(-)C10_A10. Operational capacity and monitoring is performance is the third strongest relationship [AS - C03_A03]. Lastly, monitoring the companies performance is related to control [C09_A03 – C04_A04]

The relationship identified within the previous illustration is considered within a further analysis known as a Principal Component Analysis. Table 22 shows a rotated component matrix with Varimax Kaiser Normalisation (also called the rotated factor matrix in factor analysis) containing decision-maker A's 11 personal constructs, and illustrates the factor

loadings after rotation.  The personal constructs that cluster on the same components suggest that component 1 represents organisational control and component 2 represents the future direction of the organisation.  Due to the bipolar nature of the personal constructs, each component represents clear distinctions.

*Table 22: Component matrix for decision-maker A*

| | Organisational Control | | | |
|---|---|---|---|---|
| | **Operational capacity** | **Strategic capability** | | |
| C03_A03 | Able to operate effectively – monitor performance | XYZ's future and success – monitor progress | .896 | |
| C02_A02 | Operational factors need to be considered | Considering strategic issues | .872 | |
| Supplied A | Operational capacity | Governance and policy | .835 | |
| C11_A11* | Developing people | Managing our performance – Targets | -.803 | |
| C04_A04 | We have control - something that we can control | XYZ need to react | .677 | -.560 |
| C01_A01 | No control over what comes into the business | Have control over what we deliver to customers | .626 | .515 |
| C05_A05 | Ability to drive strategy/change forward | Lack of drive/ambition - block growth | .607 | |
| C07_A07* | My expectations of XYZ | Board drives strategy and direction | -.520 | .434 |
| | Future Direction | | | |
| | **Awareness of how to enhance business** | **Improving the company operationally** | | |
| C10_A10* | Need to react quickly to minimise impact | Mechanisms can be put in place | | -.929 |
| C09_A09 | Growth- building on our strengths | Looking at things differently | | .890 |
| C06_A06 | Operational focus (what we need to do) | Focus on what we can achieve | | .418 |
| C08_A08 | Board has a different understanding | Board to support XYZ taking further risks | | .385 |

* Construct poles have been reversed

The Principal Component Analysis for all of the decision-makers' RepGrids is presented in Table 23.  The PCA was further utilised and presented as a series of individual Decision Recipes.  The Biplot provides a graphical representation of the decision-makers' recipes used to understand the organisational decision.  Each Biplot illustrates the relationships between variables (constructs and elements within the RepGrids) within a system of coordinates represented by the principal components defined in Table 23.  The Biplot offers assistance in seeing patterns and associations in a two-dimensional component space and, as a consequence, new insights.  The personal constructs are presented as lines; each of the two points of the line represents the pole of each construct.  The position of each element is indicated by a dot, further illustrating the relationship between each construct and element.

The PCA is further utilised and presented as a Biplot, a graphical representation of the relationships between variables (constructs and elements within the RepGrids) within a system of coordinates represented by the principal components defined in Table 23.  The Biplot offers assistance in seeing patterns and associations in a two-dimensional component space and, as a consequence, new insights.  The construct poles are presented by connected grey lines indicating their bipolar nature.  The elements are shown as dots. The decision-makers' individual RepGrids were analysed using the repertory grid software

IDIOGRID (Grice, 2002) using single-grid Slater analysis (Slater 1964, 1976). This software provided a detailed Biplot that visually plots the distances between elements and bi-constructs. This was interpreted using Fromm and Paschelke's (2011) detailed procedure. Whilst it is noted that SPSS does produce a Biplot, Idiogrid provides a more effective illustration that can be edited and further annotated for the benefit of the decision-makers and representation of the results. The Biplots for all 10 decision recipes are presented in turn.

For ease of interpretation, the research has provided annotations on the Biplots; these include:

- Component labels
- Circles indicating significance of related constructs and elements & appropriate labels
- Preferred construct

*Table 23: Summary of the PCA for all 10 decision-makers*

| | | 1st Component | 2nd Component |
|---|---|---|---|
| Directors | A | **Organisational control** Discriminating between operational capacity and strategic capability. | Considers the **future direction** in terms of what the organisation could do vs what the organisation currently does. |
| | D | Considers **growth** in terms of its **implementation**, deliberated as either barriers or enablers. | Seeks a fast-paced **course of action** through either strategic development or operational tactics. |
| | E | Seeks a **Management Plan** discriminating between targeted & achievable (success) rather than ambiguous & unattainable (risky). | Considers the **strategic direction** in terms of either internal or external. |
| | G | Seeks improvement in terms of internal perception of future direction, discriminating between development or potential immobility. | Considers the need to change external identity and defines the options as either new – external market – or old – internal market. |
| Senior Management Team | B | Seeks greater ability to compete, discriminating between a lack of external information and viable up-to-date information. | Considers growth in terms of direction, discriminating between the internal current market or external opportunities. |
| | C | Seeks growth in terms of gaining strategic commitment, either calculated or emergent growth. | Considers growth in terms of directional opportunities viewed as either secure or risky. |
| | F | Seeks operational action, supporting new things vs overthinking potential risk. | Considers growth direction in terms of planning, both managerial and day-to-day. |
| | H | Seeks sufficient resources to achieve growth gained through developing internal vs outsourcing and recruitment. | Considers the impact of growth on reputation in terms of either failure or success. |
| | I | Considers growth in terms of business perception as either being prepared or unconfident. | Considers flexibility as an important consideration linked to either effective decisions or indecisiveness. |
| | J | Seeks to understand the direction of growth as either internal/targeted or external/unknown. | Considers the motivation for growth in terms of being pressed to change and a want to change. |

## 4.3.2.9 Individual recipes

*Figure 10 Decision-maker A's decision recipe*
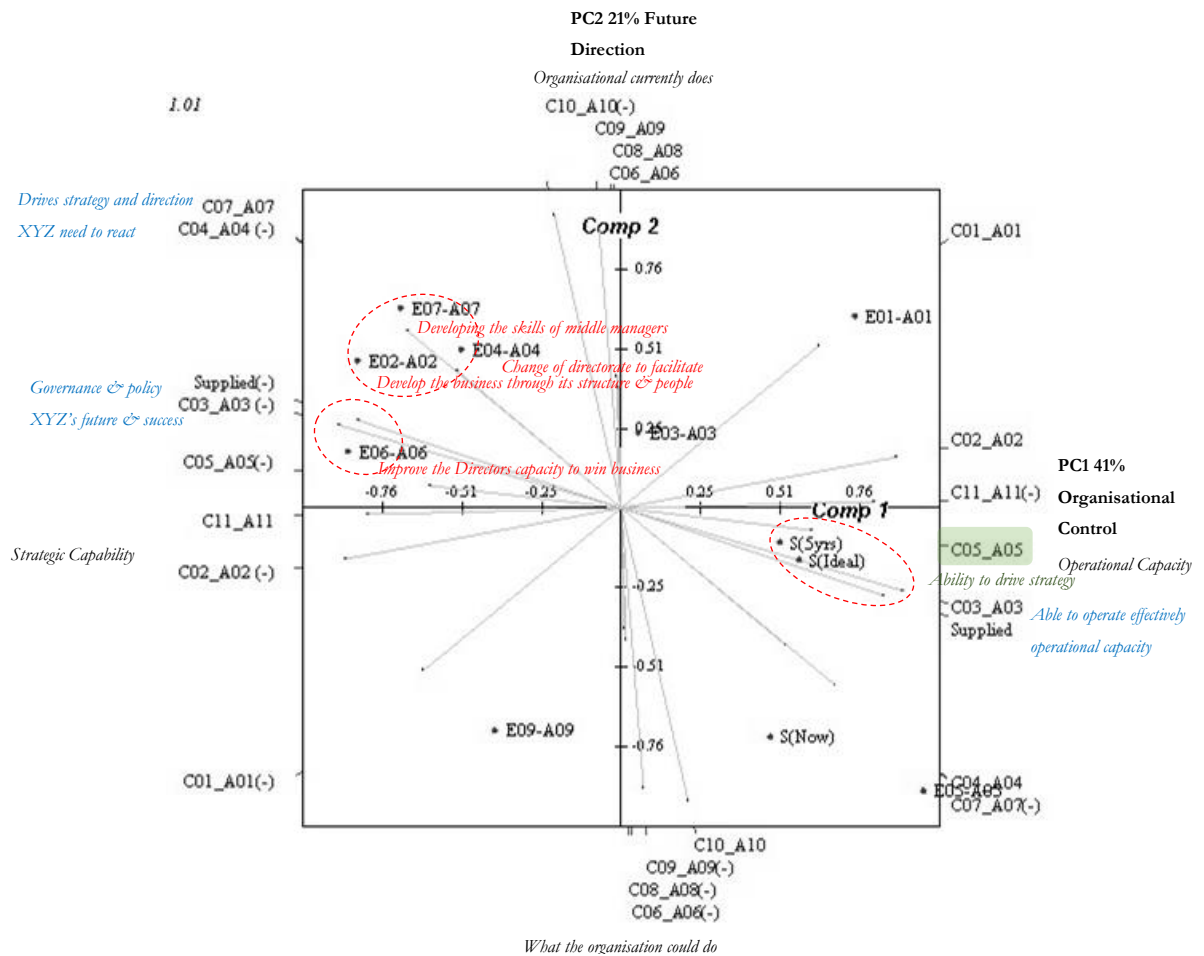


#### Elements

| | | | |
|---|---|---|---|
| E01-A01 | Need to define what margins are acceptable | E07-A07 | Developing the skills of middle managers |
| E02-A02 | Develop the business (structure &  people) | E08-A08 | Understanding funding needs for new contracts |
| E03-A03 | Move away from spreadsheets to an accurate IS | E09-A09 | Balancing priorities within business (now vs future) |
| E04-A04 | Change of directorate to facilitate growth | S(Now) | My company now |
| E05-A05 | Understand the impact of regulatory changes | S(5yrs) | My company in five years |
| E06-A06 | Improve the directors' capacity to win business | S(Ideal) | Ideal company |

#### Bipolar Constructs

| | | | |
|---|---|---|---|
| *Supplied* | Operational capacity | *Supplied(-)* | Governance |
| *C01_A01* | No control over what comes into the business | *C01_A01(-)* | Have control over what we deliver to customers |
| *C02_A02* | Operational factors need to be considered | *C02_A02(-)* | Considering strategic issues |
| *C03_A03* | Able to operate effectively | *C03_A03(-)* | XYZ's future and success |
| *C04_A04* | We have control | *C04_A04(-)* | XYZ need to react |
| **C05_A05\*** | **Ability to drive strategy/change forward** | *C05_A05(-)* | Lack of drive/ambition - block growth |
| *C06_A06* | Operational focus (what we need to do) | *C06_A06(-)* | Focus on what we can achieve |
| *C07_A07* | Board drives strategy and direction | *C07_A07(-)\** | My expectations of XYZ |
| *C08_A08* | Board has a different understanding | *C08_A08(-)* | Board to support XYZ taking further risks |
| *C09_A09* | Growth - building on our strengths | *C09_A09(-)* | Looking at things differently |
| *C10_A10* | Mechanisms can be put in place | *C10_A10(-)* | Need to react quickly to minimise impact |
| *C11_A11* | Managing our performance – Targets | *C11_A11(-)* | Developing people |
| *\* Lopsided construct* | | | |

The Principal Component Analysis initially extracted four components which accounted for 85% of the variance.  Through further analysis the researcher completed a further analysis that extracted two components, accounting for 62% of the variance.  This also ensured that each component is represented by at least three variables.  The first principal component is concerned with organisational control, discriminating between operational

capacity and strategic capability and representing 41% of the variables. The second component is concerned with future growth direction, discriminating between what the organisation could do and what the organisation currently does; this represents 21% of the variables.

*Figure 11: Decision-maker B's decision recipe*
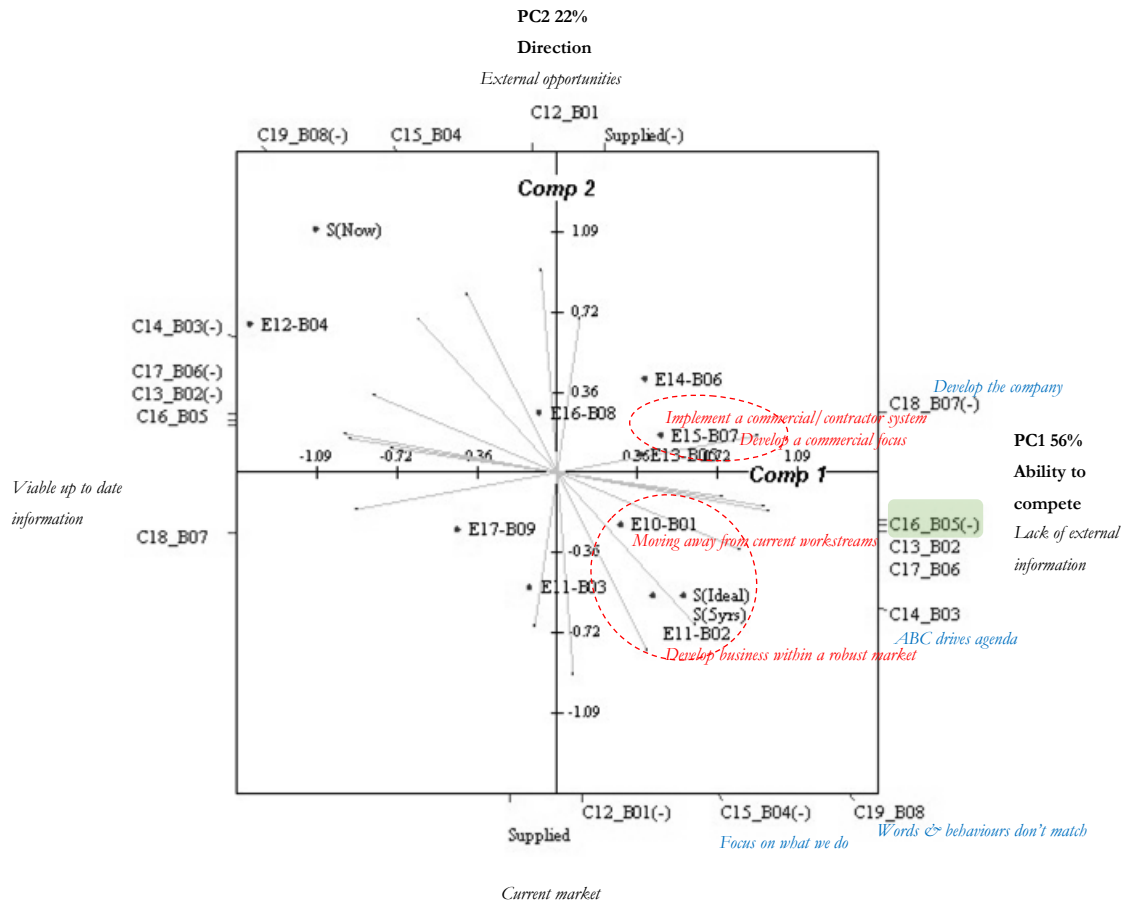


**Elements**

| | | | |
|---|---|---|---|
| E10-B01 | Moving away from current workstreams | E15-B07 | Implement a commercial/contractor system |
| E11-B02 | Develop business within a robust market | E16-B08 | The upskilling of staff |
| E11-B03 | Lose link with ABC | E17-B09 | Changing because we have to ( |
| E12-B04 | Influencing ABC appetite for risk | S(Now) | My company now |
| E13-B05 | Develop a commercial focus | S(5yrs) | My company in five years |
| E14-B06 | Introduce a commercial Department | S(Ideal) | Ideal company |

**Bipolar Constructs**

| | | | |
|---|---|---|---|
| *Supplied* | Operations/capacity | *Supplied(-)* | Governance/policy |
| *C12_B01* | Can't operate as we are – inefficient | *C12_B01(-)* | Stay as we are or contract |
| *C13_B02* | No action – stay as we are | *C13_B02(-)** | A need to take action |
| *C14_B03* | ABC drives agenda | *C14_B03(-)** | XYZ set agenda |
| *C15_B04* | Commercial focus | *C15_B04(-)* | Focus on what we do – KPI |
| ***C16_B05*** | **Greater confidence in figures & XYZ** | *C16_B05(-)* | No confidence, working with old data |
| *C17_B06* | Lack of market information/focus | *C17_B06(-)** | Promote ourselves as the contractor of choice |
| *C18_B07** | Developing the company | *C18_B07(-)* | Staying insular |
| *C19_B08* | Words and behaviours don't match | *C19_B08(-)** | New connections outside of ABC |

*\* Lopsided construct*

The Principal Component Analysis initially extracted two components which accounted for 78% of the variance. The first principal component seeks greater ability to compete and discriminates between a lack of external information and viable up-to-date information, representing 56% of the variables. The second principal component considers growth in

terms of direction with potential, discriminating between internal current markets and external opportunities; this represents 22% of the variables.

*Figure 12: Decision-maker C's decision recipe*
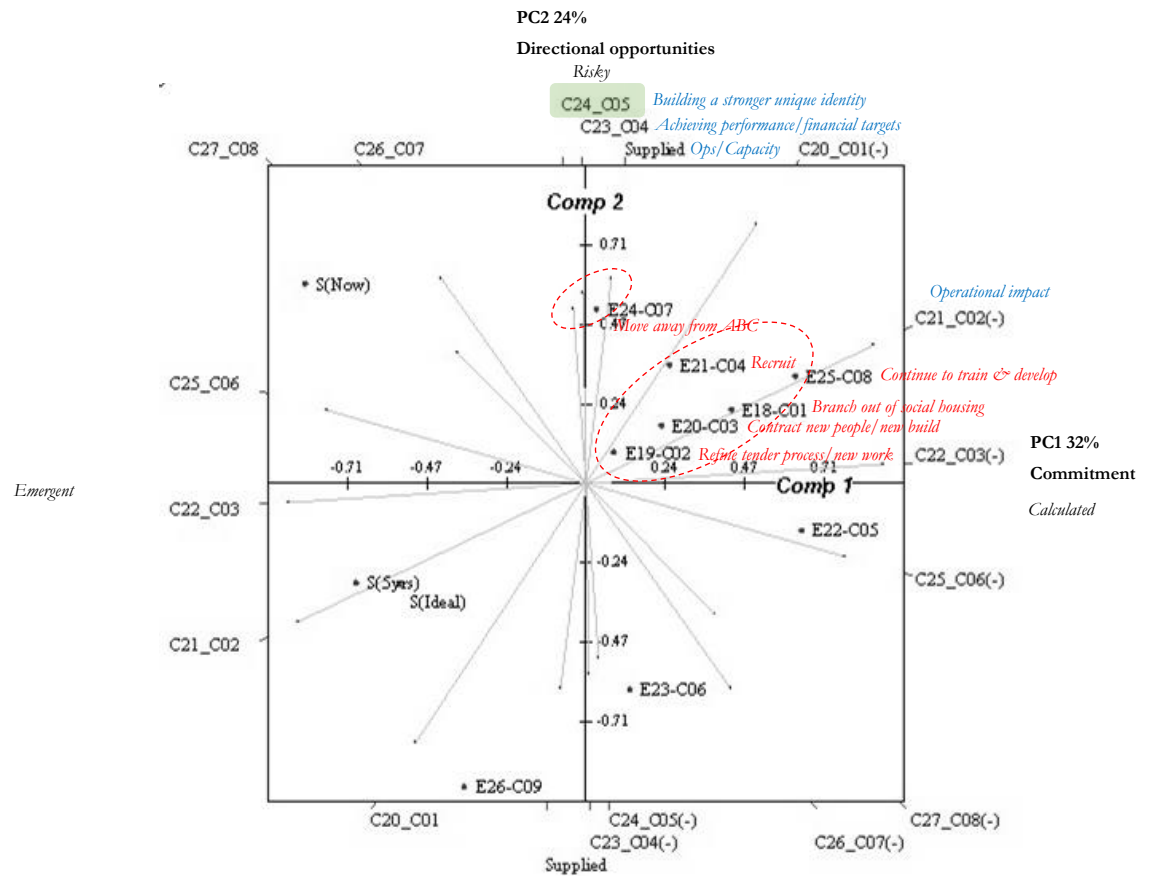


**Elements**

| | | | |
|---|---|---|---|
| E18-C01 | Branch out of social housing (council work, schools) | E24-C07 | Move away from ABC |
| E19-C02 | Refine tender process – bring in new work | E25-C08 | Continue to train and develop staff |
| E20-C03 | Contract new people (new build) | E26-C09 | Continuously improve our performance |
| E21-C04 | Recruit (trades & other staff) | S(Now) | My company now |
| E22-C05 | Drive commitment (the dream of directors) | S(5yrs) | My company in five years |
| E23-C06 | Increase revenue/Turnover | S(Ideal) | Ideal company |

**Bipolar Constructs**

| | | | |
|---|---|---|---|
| *Supplied* | Operations/capacity | *Supplied(-)* | Governance/policy |
| *C20_C01\** | Greater opportunities in external market | *C20_C01(-)* | More security with ABC |
| *C21_C02\** | Future impact | *C21_C02(-)* | Operational impact |
| *C22_C03* | Quick/risky growth | *C22_C03(-)* | Slow/secure growth |
| *C23_C04* | Achieving performance/financial targets | *C23_C04(-)* | Developing skills & expertise |
| ***C24_C05*** | **Building a stronger unique identity** | *C24_C05(-)* | Identity linked to ABC |
| *C25_C06* | Doing it for the right reasons | *C25_C06(-)* | Taking a chance |
| *C26_C07\** | Making sure we deliver | *C26_C07(-)* | Not delivering our contracts |
| *C27_C08\** | Achieving targets | *C27_C08(-)* | Setting targets that impact current contracts |

*\* Lopsided construct*

The Principal Component Analysis initially extracted four components which accounted for 85% of the variance. Through further analysis, the researcher completed a further analysis that extracted two components, accounting for 56% of the variance. The first principal component is concerned with growth in terms of gaining strategic commitment and discriminates between calculated and emergent growth, and represents 32% of the variables. The second principal component considers growth in terms of directional

opportunities and discriminates between secure growth and risky growth; this represents 24% of the variables.

*Figure 13: Decision-maker D's decision recipe*
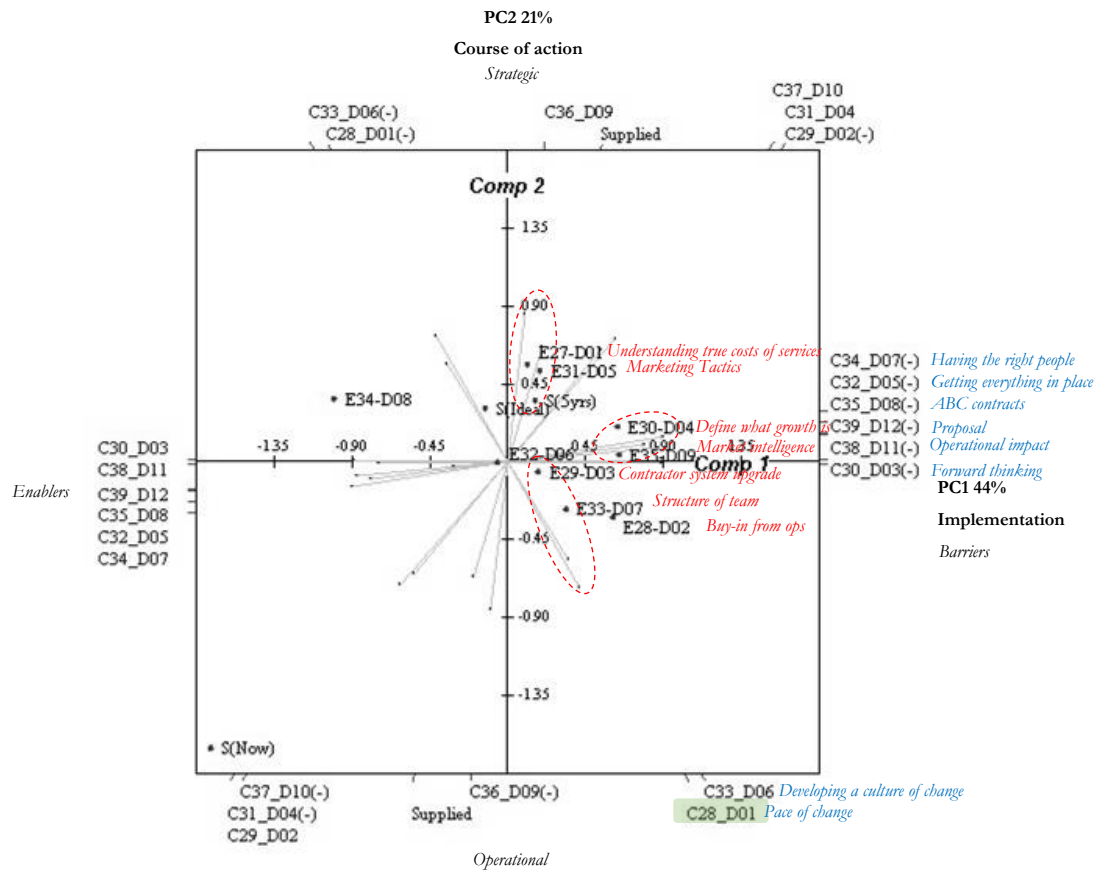


**Element**

| | | | |
|---|---|---|---|
| E27-D01 | Understanding true costs of services | E33-D07 | Structure of the team (internal – capacity) |
| E28-D02 | Buy in to grow from ops team | E34-D08 | Impact of 1% rent reduction - current services |
| E29-D03 | Contractor system upgrade | E35-D09 | Market intelligence (external advice) |
| E30-D04 | Define what growth is (internal) | S(Now) | My company now |
| E31-D05 | Marketing tactics – Delivery (brand) | S(5yrs) | My company in five years |
| E32-D06 | Board & exec support | S(Ideal) | Ideal company |

**Bipolar Constructs**

| | | | |
|---|---|---|---|
| *Supplied* | Operations/capacity | *Supplied(-)* | Governance/policy |
| **C28_D01** | **Pace of change** | *C28_D01(-)* | Lack of focus on growth |
| *C29_D02\** | Moving in one direction | *C29_D02(-)* | Lack of agreement |
| *C30_D03* | Forward thinking | *C30_D03(-)* | Staying the same |
| *C31_D04* | Reduces opportunities | *C31_D04(-)\** | See and develop opportunities |
| *C32_D05\** | Everything does not need to be in place | *C32_D05(-)* | Getting everything in place first |
| *C33_D06* | Developing a culture of growth | *C33_D06(-)* | Developing ability to grow |
| *C34_D07* | Having the right tools | *C34_D07(-)* | Having the right people |
| *C35_D08* | External contracts | *C35_D08(-)* | ABC contracts |
| *C36_D09* | Operational efficiencies | *C36_D09(-)* | Market insight |
| *C37_D10* | Inability to change | *C37_D10(-)\** | Ability to change |
| *C38_D11\** | Defined pathway to change | *C38_D11(-)* | Rapid growth with poor resources |
| *C39_D12\** | Accurate targets/Reports | *C39_D12(-)* | Proposals |

*\* Lopsided construct*

The Principal Component Analysis initially extracted three components which accounted for 77% of the variance. Through further analysis, the researcher completed a further analysis that extracted two components, accounting for 66% of the variance. This also ensured that each component is represented by at least three variables. The first principal

component considers growth in terms of its implementation and discriminates between enablers and barriers, representing 44% of the variables. The second principal component considers a fast-paced course of action and discriminates between operational tactics and strategic development; this represents 21% of the variables.

*Figure 14: Decision-maker E's decision recipe*
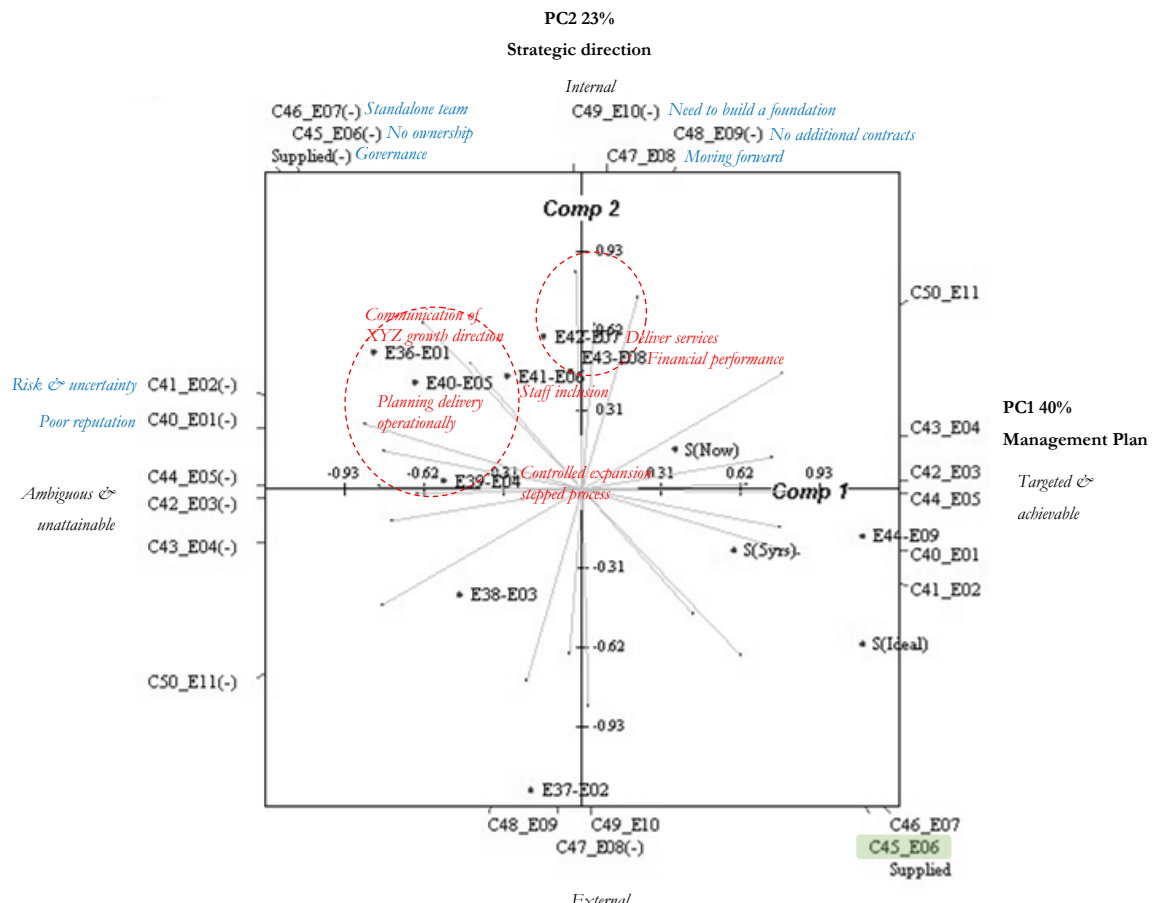


**Elements**

| | | | |
|---|---|---|---|
| E36-E01 | Communication of XYZ growth direction | E42-E07 | Deliver services – monitor performance KPI |
| E37-E02 | Market services externally | E43-E08 | Financial performance – create surplus (VFM) |
| E38-E03 | Link expansion areas to strengths | E44-E09 | ICT standalone system |
| E39-E04 | Controlled expansion – stepped process | S(Now) | My company now |
| E40-E05 | Planning the delivery operationally | S(5yrs) | My company in five years |
| E41-E06 | Staff inclusion/consultation | S(Ideal) | Ideal company |

**Bipolar Constructs**

| | | | |
|---|---|---|---|
| *Supplied* | Operations/capacity | *Supplied* | Governance/policy |
| *C40_E01* * | Building reputation | *C40_E01* | Poor reputation |
| *C41_E02* | Clear direction | *C41_E02* | Risk and uncertainty |
| *C42_E03* | We know what to expect | *C42_E03* | Exciting opportunity |
| *C43_E04* | Take less risks | *C43_E04* | Taking risks |
| *C44_E05* | Deliverable plan - building confidence | *C44_E05* | Short-term wins - firefighting approach |
| **C45_E06*** | **Commitment and ownership of duties** | *C45_E06* | No ownership |
| *C46_E07* | Operations unable to deliver | *C46_E07* | Standalone team to deliver change |
| *C47_E08* | Moving forward | *C47_E08* | Stay as we are |
| *C48_E09* * | Successful growth | *C48_E09* | No additional contracts |
| *C49_E10* | Having a good starting point | *C49_E10* | Need to build a foundation |
| *C50_E11* | Target profitable areas | *C50_E11* | Diversify into all areas |

*\* Lopsided construct*

The Principal Component Analysis initially extracted three components which accounted for 78% of the variance. Through further analysis, the researcher completed a further analysis that extracted two components, accounting for 63% of the variance. This also

ensured that each component is represented by at least three variables. The first principal component is concerned with Management Plan and discriminates between targeted & achievable and ambiguous & unattainable, representing 40% of the variables. The second principal component considers the strategic growth direction and discriminates between what internal and external; this represents 23% of the variables.

*Figure 15: Decision-maker F's decision recipe*
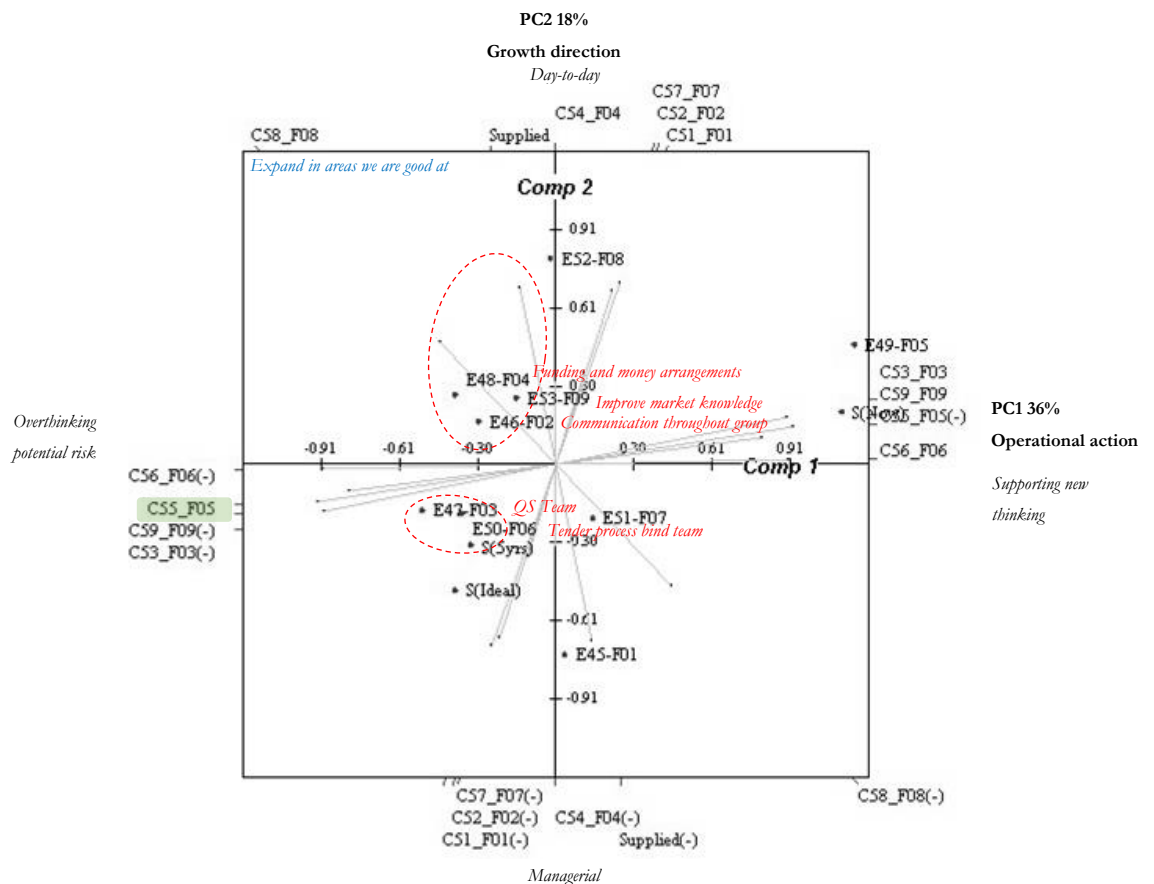


**Elements**

| | | | |
|---|---|---|---|
| E45-F01 | Planning Team | E51-F07 | Stay ahead of competitors |
| E46-F02 | Communication throughout group | E52-F08 | Explore new avenues for new income streams |
| E47-F03 | QS Team (reducing costs) | E53-F09 | Improve market knowledge (insights/innovations) |
| E48-F04 | Funding and money arrangement | S(Now) | My company now |
| E49-F05 | Move away from ABC | S(5yrs) | My company in five years |
| E50-F06 | Tender process/Bid Team | S(Ideal) | Ideal company |

**Bipolar Constructs**

| | | | |
|---|---|---|---|
| Supplied | Operations/capacity | Supplied(-) | Governance/policy |
| C51_F01* | Believing in our business/success | C51_F01(-) | Believe that we are better as we are |
| C52_F02 | Identifying best opportunities | C52_F02(-) | Identifying what the customer wants |
| C53_F03* | Trying new things | C53_F03(-) | Staying safe/staying the same |
| C54_F04 | People don't like change | C54_F04(-) | Getting people prepared for change |
| C55_F05* | Overthinking impact of change | **C55_F05(-)** | **Let's do it!** |
| C56_F06 | Making the most of what we have | C56_F06(-) | Staying how we are now |
| C57_F07 | Getting the jobs | C57_F07(-) | Planning and doing the job |
| C58_F08 | Expand in areas we are good at | C58_F08(-) | Develop in new areas & employ experts |
| C59_F09* | Supporting directors' decisions | C59_F09(-) | Not supporting decisions of directors |

*\* Lopsided construct*

The Principal Component Analysis initially extracted four components which accounted for 83% of the variance. Through further analysis, the researcher completed a further analysis that extracted two components, accounting for 63% of the variance. This also

ensured that each component is represented by at least three variables. The first principal component is concerned with operational action and discriminates between supporting new things and overthinking potential risk, representing 36% of the variables. The second principal component considers success growth in terms of planning, discriminating between day-to-day and managerial; this represents 18% of the variables.

*Figure 16: Decision-maker G's decision recipe*
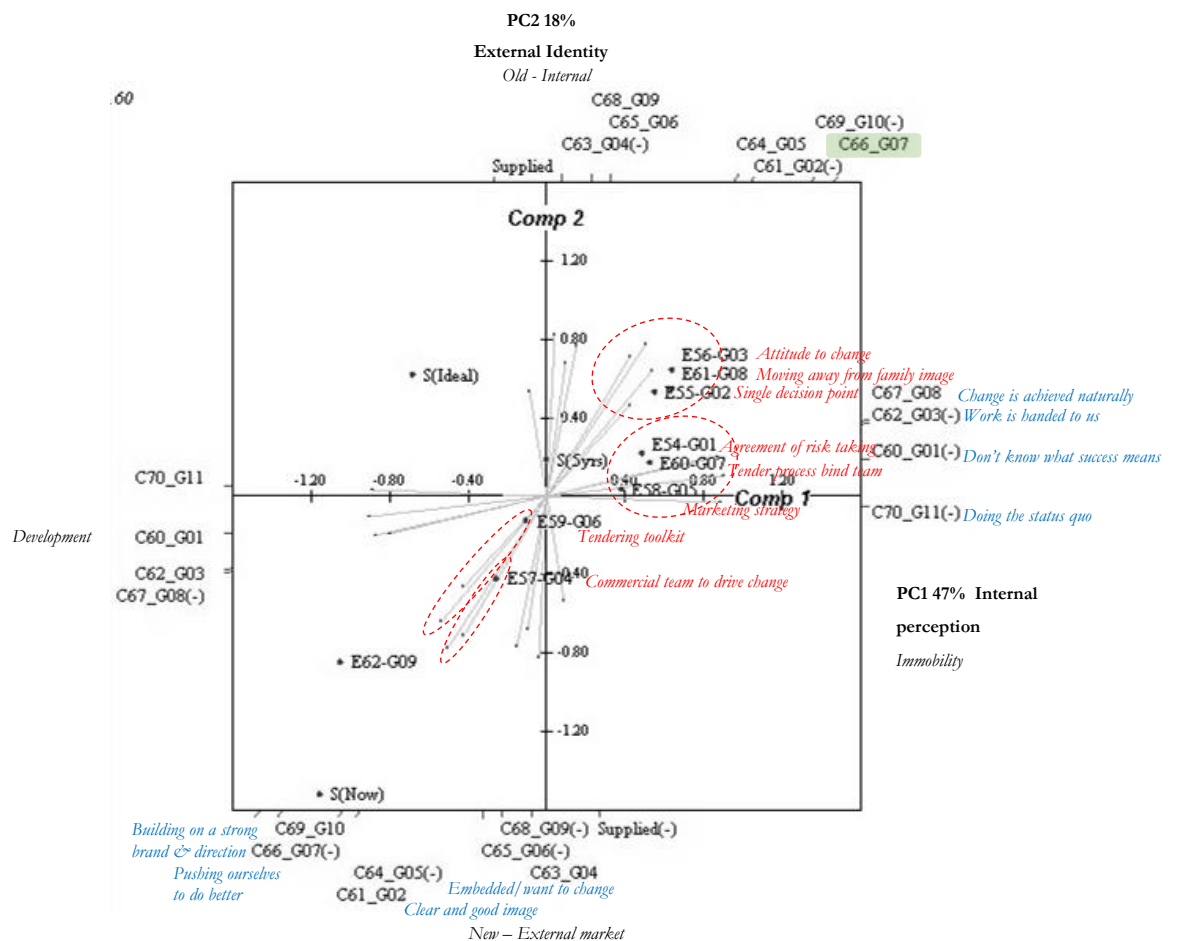


### Elements

| | | | |
|---|---|---|---|
| E54-G01 | Agreement of risk taking (Directors & Board) | E60-G07 | Developing links and connections |
| E55-G02 | Director structure – single decision point | E61-G08 | Moving away from family to commercial image |
| E56-G03 | Attitude to change at senior level | E62-G09 | Board & CEO to drive growth |
| E57-G04 | Commercial team to drive change | S(Now) | My company now |
| E58-G05 | Knowing who XYZ are – marketing strategy | S(5yrs) | My company in five years |
| E59-G06 | Tendering tool kit – Bid strategy | S(Ideal) | Ideal company |

### Bipolar Constructs

| | | | |
|---|---|---|---|
| *Supplied* | Operations/capacity | *Supplied(-)* | Governance/policy |
| *C60_G01\** | <u>Understanding of success measures</u> | *C60_G01(-)* | Don't know what success means |
| *C61_G02\** | <u>Clear and good image</u> | *C61_G02(-)* | Cowboy approach/just do anything |
| *C62_G03* | <u>Greater opportunities</u> | *C62_G03(-)* | Work is handed to us from ABC |
| *C63_G04* | <u>Better decisions</u> | *C63_G04(-)* | No decision on growth strategy |
| *C64_G05* | Prevents positive change | *C64_G05(-)\** | <u>Embedded/want to change</u> |
| *C65_G06* | Leading with our hearts (family image) | *C65_G06(-)* | Strategic business mind |
| *C66_G07* | May not match our strengths | ***C66_G07(-)*** | **<u>Build a strong brand and direction</u>** |
| *C67_G08* | <u>Change is achieved naturally (emerges)</u> | *C67_G08(-)* | Difficult to change |
| *C68_G09* | <u>Performing to current expectations</u> | *C68_G09(-)* | <u>Move away from current expectations</u> |
| *C69_G10\** | <u>Pushing ourselves to do better</u> | *C69_G10(-)* | Doing the best we can |
| *C70_G11* | <u>Improve our practices</u> | *C70_G11(-)* | Doing the status quo |

*\* Lopsided construct*

The Principal Component Analysis initially extracted four components which accounted for 90% of the variance. Through further analysis, the researcher completed a further analysis that extracted two components, accounting for 65% of the variance. This also ensured that each component is represented by at least three variables. The first principal component considers improvement in terms of internal perception of future direction in terms of discriminating between development and immobility, representing 47% of the variables. The second principal component considers the need to change external identity

and defines the options as discriminating in favour of either new (external market) or old (internal market); this represents 18% of the variables.

*Figure 17: Decision-maker H's decision recipe*
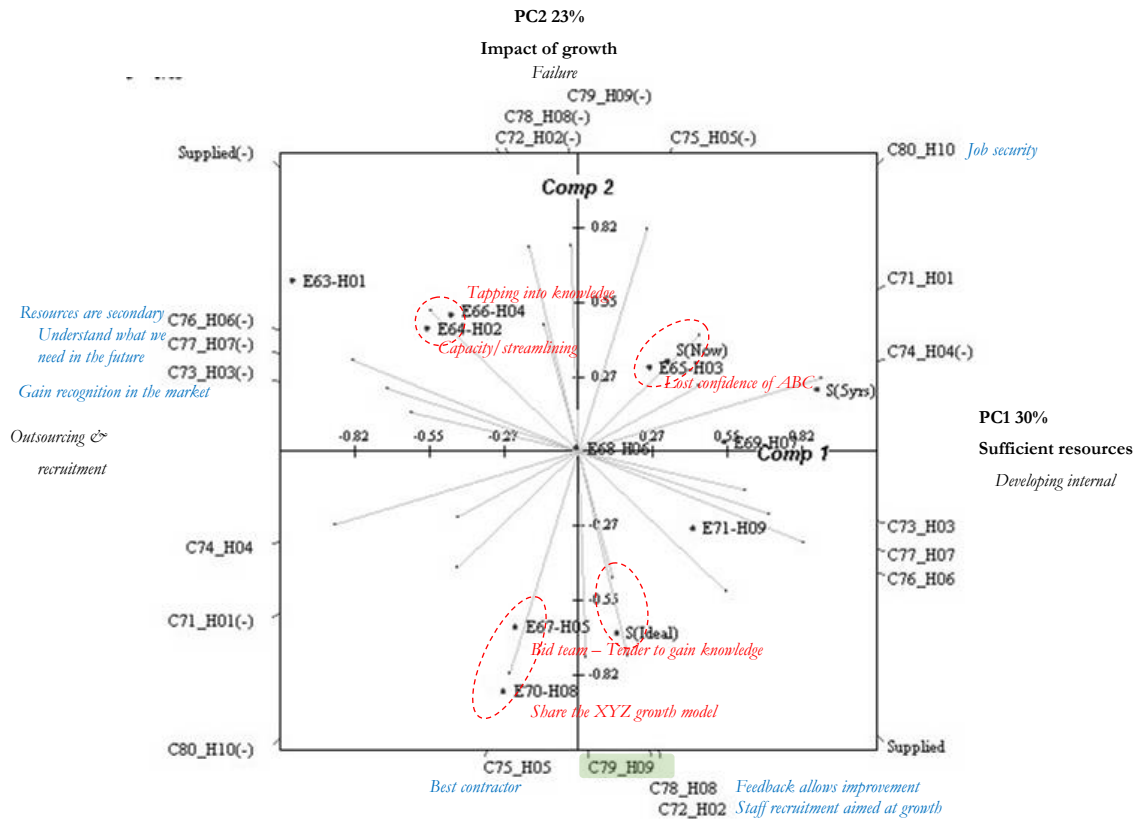


### Elements

| | | | |
|---|---|---|---|
| E63-H01 | Delivering our own contract with little failing | E69-07 | IT system to meet delivery model |
| E64-H02 | Capacity with current set up - streamlining | E70-H08 | Share XYZ growth model is & how it looks |
| E65-H03 | Growing the company name – branding | E71-H09 | Sustainable growth not short-term fix |
| E66-H04 | Tapping into knowledge from employees | S(Now) | My company now |
| E67-H05 | Bid Team – tender to gain knowledge | S(5yrs) | My company in five years |
| E68-H06 | Training to deliver our needs | S(Ideal) | Ideal company |

### Bipolar Constructs

| | | | |
|---|---|---|---|
| *Supplied* | Operations/capacity | *Supplied(-)* | Governance/policy |
| C71_H01* | Having the expertise and guidance | C71_H01(-) | No knowledge of current trends |
| C72_H02 | Staff recruitment aimed at growth | C72_H02(-) | Projects aimed at growth |
| C73_H03 | Lose the confidence of ABC | C73_H03(-) | Gain recognition in the market |
| C74_H04 | Quickly fill the gaps to take on additional contracts | C74_H04(-) | Learn from new employees (bring knowledge in house) |
| C75_H05 | Best contractor | C75_H05(-) | Being known for trying and failing |
| C76_H06 | Resources first - slow growth | C76_H06(-) | Resources are secondary |
| C77_H07 | Understanding our strengths & building on them | C77_H07(-) | Understanding what we need in the future |
| C78_H08 | Feedback allows improvement | C78_H08(-) | Moving targets that don't reflect truth |
| **C79_H09** | **Job security** | C79_H09(-) | Lose what they have |
| C80_H10* | Improved focus | C80_H10(-) | Lack of focus |

*\* Lopsided construct*

The Principal Component Analysis initially extracted four components which accounted for 82% of the variance.  Through further analysis, the researcher completed a further analysis that extracted two components, accounting for 53% of the variance.  This also ensured that each component is represented by at least three variables.  The first principal component seeks sufficient resources to achieve growth and discriminates between

developing internal resources and recruitment, representing 30% of the variables.  The second principal component considers the impact of growth on reputation, and discriminates between success and failure; this represents 23% of the variables.

*Figure 18: Decision-maker I's decision recipe*
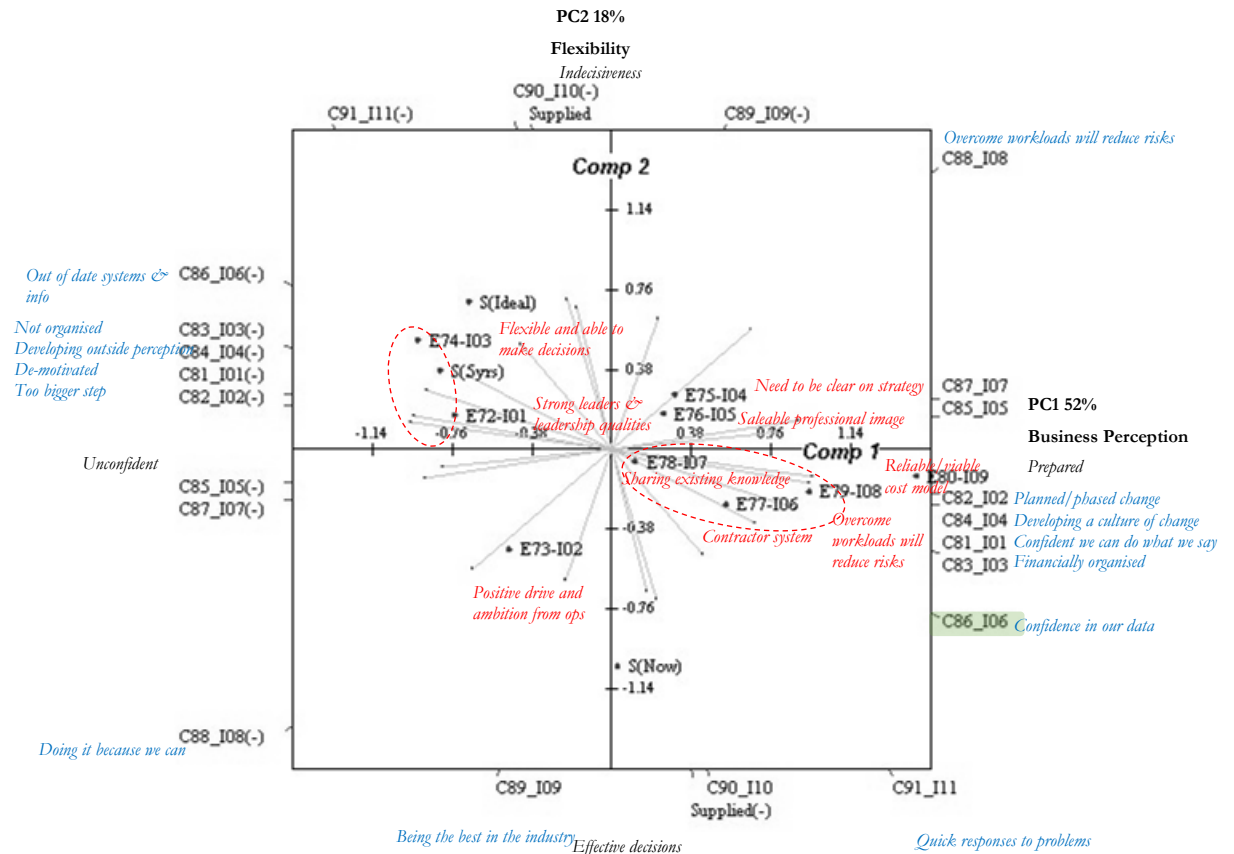


#### Elements

| | | | |
|---|---|---|---|
| E72-I01 | Strong leaders and leadership qualities | E78-I07 | Share existing knowledge and skills |
| E73-I02 | Positive drive & ambition comes from ops | E79-I08 | Overcome workloads will reduce risks |
| E74-I03 | Flexible and able to make decisions | E80-I09 | Reliable/viable cost models |
| E75-I04 | Need to be clear on strategy – strengths | S(Now) | My company now |
| E76-I05 | Saleable professional image | S(5yrs) | My company in five years |
| E77-I06 | Contractor system - for non ABC contracts | S(Ideal) | Ideal company |

#### Bipolar Constructs

| | | | |
|---|---|---|---|
| Supplied | Operations/capacity | Supplied(-) | Governance/policy |
| C81_I01 | Confident we can do what we say | C81_I01(-) | De-motivate that change is not achievable |
| C82_I02 | Planned, phased change | C82_I02(-) | Too big a step |
| C83_I03 | Financially organised confidence | C83_I03(-) | Not organised - failure |
| C84_I04 | Developing a culture of change & success | C84_I04(-) | Developing an outside perception  of success |
| C85_I05 | Strong position | C85_I05(-) | Weak position – changing before we have the ability |
| **C86_I06** | **Confidence in our data** | C86_I06(-) | Out of date systems and information |
| C87_I07 | Engaged clear vision | C87_I07(-) | No appetite for change |
| C88_I08 | Doing it because we can | C88_I08(-) | Doing it because we have to |
| C89_I09* | Being the best in the industry  - pride | C89_I09(-) | Being average – embarrassed by what we do |
| C90_I10 | Improve our chance of success | C90_I10(-) | Running before we can walk |
| C91_I11 | Quick responses to problems | C91_I11(-) | Slow responses to important decisions |

*\* Lopsided construct*

The Principal Component Analysis initially extracted three components which accounted for 81% of the variance.  Through further analysis, the researcher completed a further analysis that extracted two components, accounting for 70% of the variance.  This also ensured that each component is represented by at least three variables.  The first principal

component considers growth in terms of business perception as either being prepared or unconfident, representing 52% of the variables. The second principal component considers flexibility as an important consideration linked to either indecisiveness or effective decisions; this represents 18% of the variables.

*Figure 19: Decision-maker J's decision recipe*
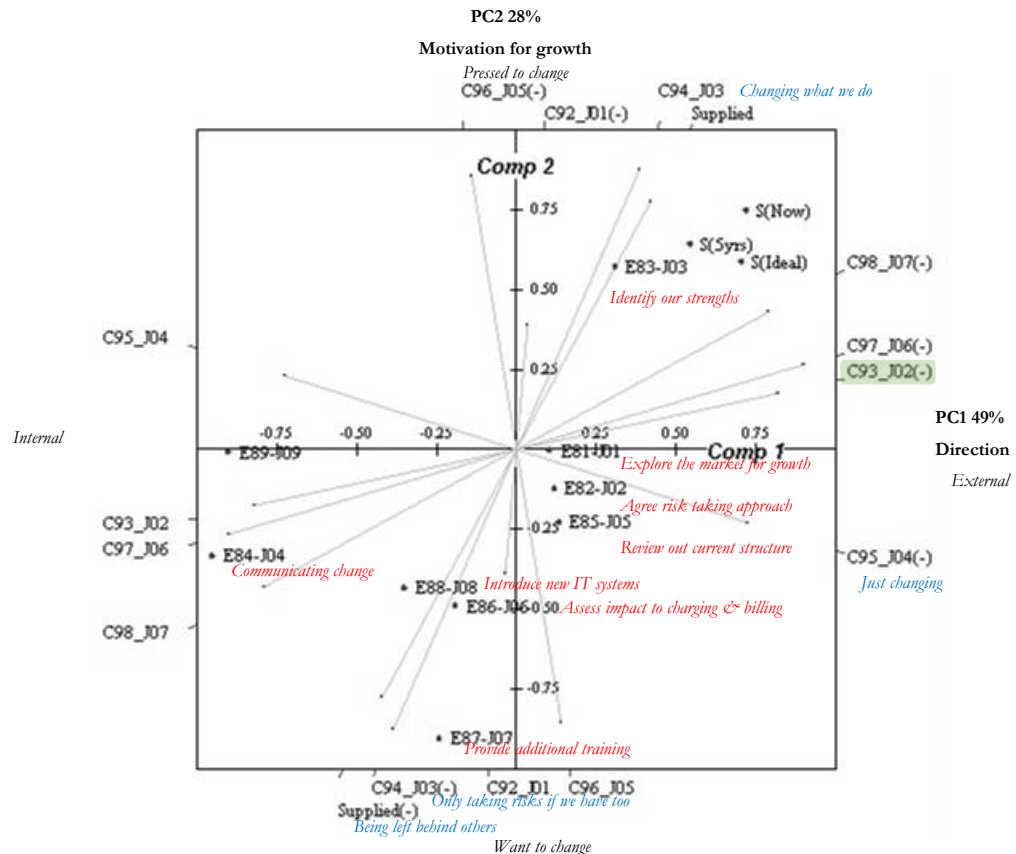


| Elements | | | |
|---|---|---|---|
| E81-J01 | Explore the market for growth | E87-J07 | Provide additional training |
| E82-J02 | Agree risk-taking approach | E88-J08 | Introduce new IT systems |
| E83-J03 | Identify our strengths | E89-J09 | Employ new staff |
| E84-J04 | Define and manage SLA for new contracts | S(Now) | My company now |
| E85-J05 | Review our current structure | S(5yrs) | My company in five years |
| E86-J06 | Assess impact to charging & billing processes | S(Ideal) | Ideal company |

| Bipolar Constructs | | | |
|---|---|---|---|
| *Supplied* | Operations/capacity | *Supplied(-)* | Governance/policy |
| *C92_J01* | Only taking risks if we have too | *C92_J01(-)* | Lose a lot of money if risk is too big |
| ***C93_J02*** | **Time-tested work** | *C93_J02(-)* | New work still in infancy |
| *C94_J03* | Changing what we do | *C94_J03(-)* | Being left behind others |
| *C95_J04* | Communicating change | *C95_J04(-)* | Just changing |
| *C96_J05\** | Focus on targets | *C96_J05(-)* | Focus on unknown |
| *C97_J06* | Controlled growth | *C97_J06(-)* | Unstructured growth |
| *C98_J07* | Internal focus | *C98_J07(-)* | External focus |

*\* Lopsided construct*

**4.3.2.10          Phase 1 summary**

Phase 1, utilising a purposeful sample, conducted individual RepGrid interviews with 10 organisational decision-makers.  The decision-makers were involved with an organisational decision that sought to address the question: "What do you think are the activities that need to be implemented in order to double the company's current income within a three-year period?"

Each RepGrid interview consisted of a structured conversational technique, supported by additional tools to elicit and capture an in-depth account of the unfolding organisational decision.  The interview captured the personal experiences, meanings and expressions of each decision-maker, representing a moment within an ever-evolving process of decision-making.  Such snapshots are defined as an individual's decision recipe and were used to sense the organisational decision and further understand the ways that managers create and shape their organisational decision landscape.  The research process and the resulting decision recipe biplots allowed decision-makers to focus upon their unique perspectives and personal reflections of the decision.  Further, it permitted decision-makers to consider a signature sensemaking question of "How can I know what I think until I see what I say?" Weick (1979:133).  This phase exposed to the decision-makers their unconscious or often unexplored assumptions and prior experiences used to make decisions.

In the current research, a glimpse into the networked pathways provided an opportunity for reflection as each decision-maker expressed the personal meaning that the organisational decision had for them.  The RepGrid technique was utilised to gain a window into the decision-makers' construct systems  decision-maker, as they considered the activities (elements) that were considered important to the decision.  In order to conceptualise *how* the decision-makers view the decision and the meaning attached to it, the decision-maker were asked to arrange their thoughts on a bipolar continuum, as expressed within Kelly's (1955) Dichotomy Corollary.  Through a series of iterative distinctions, the decision-makers' plausible understanding of the decision was captured, allowing them the ability to see what they think (Kelly, 1955; Weick, 1995).

The decision-makers' structured decision recipes began to emerge as they engaged in a journey of distinction making, focusing upon their pathways of personal choices, options and even predictions.  This provided further in-depth insights into their configurations of thought, feeling and action, intentionally directed through their actions (Butt, 2004).  The decision-makers' choices were directed towards what they anticipated as being meaningful

to them and their personal perception of the organisational decision, as considered with Kelly's (1955) Choice Corollary.  Their choices represented possible actions, no actions, and options, any one of which could have been undertaken.

Whilst decision-makers were able to define the essential features of the decision recipes as they compared boundary markers, the findings demonstrate the importance of gaining a look 'under the hood' at what drives the boundary, features and ultimately the recipes themselves as well as the reasoning behind such drivers.  The decision-makers considered each bipolar construct in isolation as they defined a hierarchical system of meaning (Kelly, 1955).  In doing so, decision-makers were able to contemplate what personal drivers and expectations lay beneath or above their decision recipes.  Central to this process were the techniques of laddering and pyramiding within the methodology used to elicit and examine the decision-makers' core constructs.  Essentially, this consisted of a series of straightforward, recursive, probing questions, as decision-makers were encouraged to move up a level of abstraction with "why?" questions or down to increase details about the meaning through asking "how?" questions.  The empirical study went further to explore the essential and often silent features of the personal decision recipes that provide direction in the unfolding decision.  To the surprise of the decision-makers, the articulation of their decision recipes allowed a private underlying system of meaning, understanding and reasoning to emerge.  The findings also demonstrate the impact of considering questions through sensemaking rather than answers (Drunker, 1974), as the multiple-layered hierarchy of personal meanings associated with the organisational decision surfaced, revealing the subtle ways in which a person's decision recipe is intertwined within their personal experiences and anticipations.

### 4.3.3    Phase 2: the social layer

Phase 2 is concerned with bringing personal meaning into action as decision-makers explore their commonalties and differences within a social context.  This phase is presented as two distinct sections of data collection (Phase 2A) and data analysis (Phase 2B).

Phase 2A involves decision-makers completing two social tasks.  The first activity was concerned with developing a sense of the decision within a social context, as groups explore individual decision recipes with a focus upon 'what' others thinks (individual elements) and 'how' they think (personal constructs).  The second task incorporated the elicitation of a group RepGrid through a facilitated group interview session.

Phase 2B involves both qualitative and quantitative analysis for the purpose of interpreting the social decision recipes.

### 4.3.3.1 Phase 2A: group interviews

The first task facilitated interactions between the decision-makers, allowing them to explore the array of individual elements and constructs of the wider group.  Ultimately, this task provided the first step in illustrating to the decision-makers the '*ways'* that their individual decision recipes are, firstly, unique and, secondly, how that uniqueness influences the group decision.

The decision-makers were represented by two organisational groupings; Senior Management Team and Middle Management Team.  Each of the groups were further divided on the day of the group interviews to ensure that the research design could be implemented in an effective manner.

The first group activity triggered in-depth interactions between decision-makers as they immersed themselves with a focus upon 'what' others think (individual elements) and 'how' they think (personal constructs).  Each group systematically sifted, sorted and categorised key themes within the individual elements and constructs.  Each theme was labelled using a single word or short phrase.  The results are summarised within tables 24 & 25.

Each group indicated what they considered the most important elements or construct category in terms of the organisational decision.  The most important element category for the SMT blue team was a defined growth strategy that justified why growth was needed, what growth would look like and who the organisation would be once growth had been

achieved, whereas the SMT green team considered leadership actions to be the most important element categories if the organisation was to achieve growth within the next three years. The MMT teams defined contrasting categories: whilst the red group sought to introduce a commercial team to drive external growth, the yellow group focused upon internal growth and delivering to their strengths.

Interestingly, both of the SMT groups identified leadership as a theme within the elements; however, the MMT groups did not. MMT yellow and SMT blue considered activities associated with risk, investment and funding, unlike the other two groups.

Next, each group reviewed the personal constructs. This task was more complex due to the constructs' bipolar nature. In order to ensure that their meaning was not lost, each of the group was reminded to consider both the emergent and implicit construct poles when defining their categories. Therefore, each category is defined and grouped according to the meaning expressed by the bipolar constructs.

Three of the four groups identified constructs that relate to the direction of organisational growth. However, each of the three groups presented a different perspective or meaning for 'growth direction'. For example, the SMT blue team did not clarify the actual direction, but did indicate that clear direction is vital as compared to staying as the company is now. The SMT green, however, considered the direction of growth in terms of 'Target core areas for expansion rather than diversification'. Finally, the MMT red group defined direction in terms of who sets the agenda, clarifying that it should be the organisation that sets the agenda rather than the Board.

All decision-makers were engaged fully with this activity, demonstrating a curiosity for the remainder of the session. Their comments during the first activity included:

> *"Is it possible to find out who has said what? It would be interesting to understand who has discussed a change in the directors' structure." (B)*

> *"Have we all been given the same cards?" (D)*

> *"It is interesting to see the different views in this way. The following activities will be interesting." (I)*

> *"Some of the cards aren't related to growth. Are all of the cards comments from this company?" (G)*

> *"Some of the cards aren't achievable; this shows how different our views are." (J)*

*Table 24: Group element categorisation*

| Theme | Blue SMT Team Themes | Green SMT Team Themes | Yellow MMT Team Themes | Red MMT Team Themes |
|---|---|---|---|---|
| **Organisational Structure** | | Develop structure to support change | Org Structure building foundation | Structure/management to manage change |
| **Leadership** | Leadership team | **Leadership\*\*** | | |
| **People & Teams** | Develop a business development team | Having staff with appropriate skills | Training to improve skills | **Commercial Team\*\***<br><br>Retain & recruit people |
| **Communication** | Create buying in for growth strategy | Briefing & consultation | Marketing comms (external networking, forming links) | Communication<br><br>Stakeholders (external) |
| **ICT** | Developing reliable information<br><br>Commercial knowledge | ICT for margins & performance data | IT - Fit for purpose | ICT Constructor System - make informed decision |
| **Brand & Marketing** | Understanding company brand | Define company brand further | **Deliver to strengths\*\*** | Company brand<br><br>Winning work through a brand |
| **Investment & Risk** | Agreeing funding and investment for growth | | Assessing Risk<br><br>Reduce risks<br><br>Financial investment | |
| **Growth Strategic Plan** | **Defined growth strategy (Why? What? Who?)\*\*** | Develop plans to support growth | Expansion direction | |
| **Growth Direction** | | Controlled internal expansion | Change direction | Objectives aimed at strengths |

\*\* Each group's most important theme

*Table 25: Group construct categorisation*

| Construct Theme | Blue SMT Team Themes | Green SMT Team Themes | Yellow MMT Team Themes | Red MMT Team Themes |
|---|---|---|---|---|
| **Delivery resources & performance** | Having capacity vs not delivering | Impact to core service vs performance & financial viability | Having resources vs not performing | People vs resources<br>Processes vs attitudes<br>Management vs leadership |
| **Direction** | **Clear direction for action\*\*** vs as we are now<br><br>Focus on current vs focus on future<br>Family image vs commercial image | **Target core areas for expansion\*\*** vs Diversify into all areas<br>Strengths vs weaknesses | Structured growth vs growing quickly<br><br>Internal focus vs external focus<br><br>Focus on goals vs focus on people | **Company sets agenda\*\*** vs Board sets agenda |
| **Control & change** | Control vs strategic thinking<br><br>Staying the same vs changing our culture | Common place to move forward vs no control | All-out growth vs staying as we are<br><br>Managing change vs no change | Know our strengths vs improve our weaknesses |
| **Knowledge & information** | Commercial knowledge vs staying blind | Understanding external market vs test external market | | |
| **Decisions** | Communication vs engagement | Successful decisions vs poor decisions<br>Agreement of risk vs careful behaviour | Unacceptable risk vs **acceptable risk\*\*** | Developing a vision vs firefighting approach |
| **Success or failure** | | Success in new workstreams vs no additional contracts<br><br>Creating a starting point for success vs failure to get it right | Left behind vs keeping up | |

\*\* Each group's most important construct

The first group task revealed perceptions of growth within a social context as decision-makers explored patterns of similarities and differences between the elements and bipolar constructs of the individual RepGrids.  To conclude, in this task, each group was informed that it had the same information as the other groups, and was then asked to review the other groups' categories before returning for a group discussion on the task as a whole.

Two of the four groups (SMT Green & MMT Red) assumed that each group had been given different elements and constructs as the categorisation was so different.  The following reflections were made:

> *"The themes of each group represent the current debates and challenges we have when discussing the topic of growth within recent meetings.  It will be interesting to [find out] why each group has defined the themes they have."* (D)

> *"The themes of each group represent the views of the individuals.  For example, decision-maker J [MMT Yellow] is always talking about sticking with what we know and how risky moving outside social housing is.  The theme is his group represents all of the challenges we have."* (B)

Whilst all the groups discussion focused upon debating similarities and differences, personal reflections made within the notebooks demonstrated a curiosity for understanding meanings within their own decision recipes and those of the other groups:

> *"It is interesting to discuss this topic in this way.  When the group discussed the cards [Elements and Constructs], each person at times had different interpretations of the same card; the opposite provided clarification of meaning that was different to mine."* (I)

> *"I wonder if when discussing the topic of growth within meetings I am actually communicating what I mean to others.  This exercise has made me question whether I have understood what others are actually trying to say and why things are important to them."* (G)

The purpose of this task was to explore to what extent the individual decision recipe influences the way that the group creates a group decision recipe, as they explore the similarities and differences between each decision-maker's elements and constructs.

Each group's initial reflections focused upon the similarities and differences of their own perceptions compared to others. The researcher observed that the groups acted in a coordinated manner when agreeing theme labels. The labels tended to reflect shared meaning or similar personal goals; thus, social decision recipes defined the social patterns of interactions focused upon similarities. Building upon the first task, each group was then tasked with the elicitation of a social RepGrid exercise.

Decision-makers D and G (SMT Blue) agreed that an independent identity was important, linking this to being a commercial contractor [C099_K01] as opposed to an in-house contractor as they are now. Both decision-makers discussed their frustrations and concerns regarding the lack of agreement on the company's growth direction [C103-K07] and the lack of decisions [C108_K10]. Further, they discussed the importance that the SMT and the Board agree on the direction of organisational growth as well as directors and senior managers taking the lead and defining their own strategies [C104-K06], the need to engage with all levels of the organisation [C106-K08] and a steady pace of change [C107-K09].

Decision-maker A and E (SMT Green) discussed making better/informed decisions [C109-L01] within the organisation. There was a preference towards developing a good starting point for growth [C115-L07], one that builds upon current successful workstreams [C114-L06] rather than new workstreams & diversification [C118-L10]. The group decision recipe suggested a focus upon operational factors as a key to successful organisational growth.

Decision-maker C, J and H (MMT Yellow) discussed organisational growth with a clear focus upon risk [C121-M01, C124-M04]. Their discussions implied that moving away from the current business model is too risky, and there was a wish to continue with what the organisation was good at [C126-M06] in order to achieve sustainable growth [C127-M07].

Participants B, F and I (MMT Red) were engaged in a lively discussion focused upon developing an internal culture of change [C137-N10], if the organisation itself is to drive change [C128-N02] rather than the Board or CEO. Another area that the group felt was important was a focus upon identity development [C132-N05] rather than resources, as they felt that this was a way to manage where they would like to be in the future [C133-N06] rather than focusing on the now. The group's reflective discussion focused upon the importance of leadership [C128-N01], thinking in a different way [C137-N10] and the

relationship between the directors, Board and the influence of the CEO.  They concluded that understanding the complex relationship between the Board/CEO and the organisation's SMT Team was key to understanding how organisational growth can be achieved and for what purpose.

### 4.3.3.2 Phase 2B: group RepGrid data analysis

The analysis of the group's RepGrid mirrors the analysis as defined within Phase 1B.  The results from the PCA are summarised within Table 26.  At first glance, there appear to be several similarities between the components of the social decision recipes: SMT Green and MMT Yellow are represented as Growth Direction (Component 1) and Resources (Component 2) for both groups.  A closer assessment of the meaning of each group of components highlights a subtle difference between the groups.  SMT Green considers growth direction as a focus upon their core areas as they are now or a diversification into new areas; they appear to be considered with organisational change as well as growth.  MMT Yellow also considers growth direction.  However, they focus upon internal sustainable growth vs changing and over committing; they appear to focus upon the impact of change.

The second components of SMT Green's and MMT Yellow's PCA are labelled as resources although each group once more placed a different emphasis upon them.  SMT Green viewed resources in terms of the impact on the current operations of the organisation, whilst MMT Yellow considered resources in terms of the strategic direction of the organisation, either resourcing the organisation as an internal contract (as they are now) or resourcing it to be a contractor of choice, which was a preference of the individuals within the group.

The labels for the second components of SMT Blue and MMT Red  are represented by the concept identity.  However, each group has its own unique focus.  SMT Blue highlighted that the organisation's identity could be defined as either being part of the group as they are now, with a consequence that the organisation would lack its own unique identity, or as a commercial contract, resulting in a clear identity, which both decision-makers would prefer.  MMT Red, however, viewed the concept of identity as being related to who drives the agenda of growth and what that growth would look like.  There was a preference towards setting their own agenda so that the organisation could focus upon the future instead of the Board/Group defining the agenda, which would result in the organisation staying the same.

*Table 26: Summary of group's PCA*

| Group | 1st Component | 2nd Component |
|---|---|---|
| SMT Blue | **Strategic pace of change**<br><br>Steady pace of change as strategies are set by us **vs** Slow pace of change as strategies are set by others | **Identity**<br><br>Part of the group and lack of identity **vs** Commercial contractor with clear identity |
| SMT Green | **Growth Direction**<br><br>Focus on core areas & stay as we are **vs** Diversify into new area and change | **Resources**<br><br>Sufficient resources; therefore, no impact on current operations **vs** Insufficient resources; therefore, impact on current operations |
| MMT Yellow | **Growth Direction**<br><br>Sustainable growth; internal growth **vs** Changing what we do which is an over commitment | **Resources**<br><br>Having resources and being an internal contractor **vs** Not having resources and being a contractor of choice |
| MMT Red | **Organisational Focus**<br><br>Operational management **vs** Strategic management | **Identity**<br><br>Stay as we are now as Board drives growth **vs** Thinking about the future agenda |

The first component of SMT Blue's PCA is defined as strategy and pace of change. The group considered that a steady pace of change can be achieved if the organisation defines its own strategies whereas, if the Board is defining the strategies, growth will be achieved at a slower rate, if at all. Such views may be related to the growth direction, as defined by SMT Green and MMT Yellow.

**4.3.3.3 Group decision recipes**

*Figure 20: Blue Group's Decision Recipe*
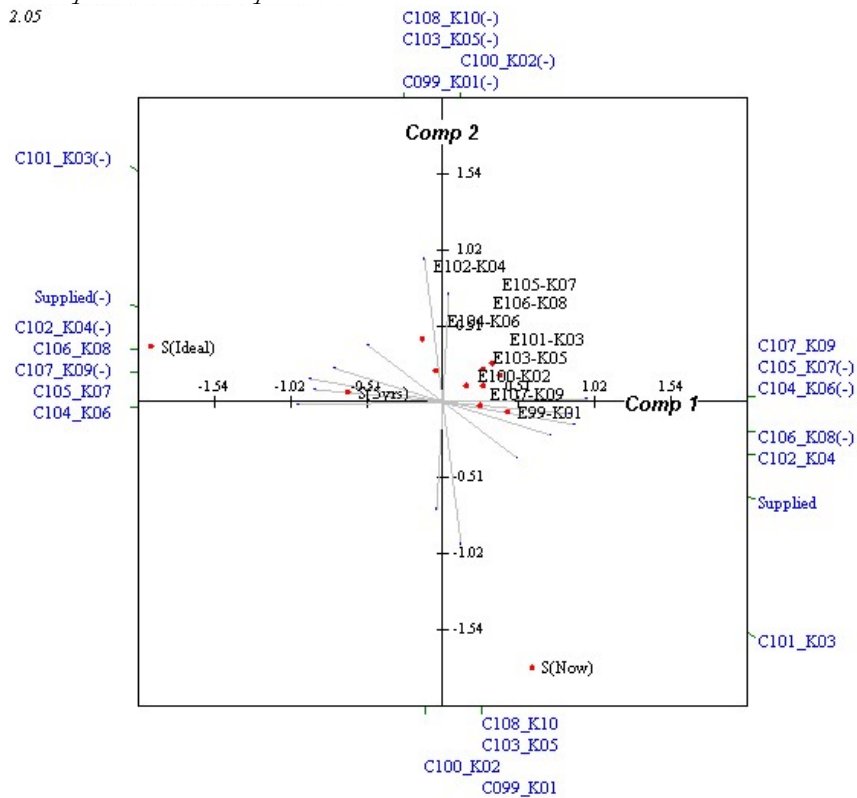


#### Element

| | | | |
|---|---|---|---|
| E99-K01 | Work together to clarify growth strategy (Why?, What?, Who?) Produce a five-year business plan | E105-K07 | Have a clear identity – agreement of what this is |
| E100-K02 | Improve commercial knowledge of senior team | E106-K08 | Need a business development team with authority |
| E101-K03 | Creating buyin/direction for growth | E107-K09 | Consistent focus upon growth through a separate team |
| E102-K04 | Implementation of ICT system to obtain reliable and up-to-date information | S(Now) | My company now |
| E103-K05 | Understanding the impact of aspirations | S(5yrs) | My company in five years |
| E104-K06 | Restructure leadership team so that it supports growth | S(Ideal) | Ideal company |

#### Bipolar Constructs

| | | | |
|---|---|---|---|
| *Supplied* | Operational capacity | *Supplied(-)* | Governance |
| *C099_K01* | Independent identity – commercial contractor | *C099_K01(-)* | Identity as part of the group – an in-house contractor |
| *C100_K02* | Getting ops ready for growth | *C100_K02(-)* | Operations improving as we go |
| *C101_K03* | Developing knowledge & leadership | *C101_K03(-)* | Developing skills and buying-in staff |
| *C102_K04* | Operational efficiencies | *C102_K04(-)* | Strategic and innovative mindset |
| *C103_K05* | Agreement of identity and direction | *C103_K05(-)* | No agreement of identity and direction |
| *C104_K06* | Strategies set by us | *C104_K06(-)* | Strategies set by others |
| *C105_K07* | Everyone on the same page – clear understanding of WHY | *C105_K07(-)* | People working against each other. Don't understand why |
| *C106_K08* | Engage with all levels and embrace change | *C106_K08(-)* | Just inform the organisation of changes |
| *C107_K09* | Slow pace of change | *C107_K09(-)* | Steady pace of change |
| *C108_K10* | Make a decision regarding our approach | *C108_K10(-)* | No decision regarding our approach |

The Principal Component Analysis initially extracted three components which accounted for 89% of the variance. Through further analysis, the researcher completed a further analysis that extracted two components, accounting for 80% of the variance. This also ensured that each component was represented by at least three variables. The first principal component is concerned with strategic pace of change and discriminates between steady pace of change as strategies are set by the company and slow pace of change as

strategies are set by others; this represented 50% of the variance. The second principal component is concerned with identity, discriminating between part of the group and lack of identity and commercial contractor with clear identity; this represents 29% of the variables.

*Figure 21: Green group's decision recipe*
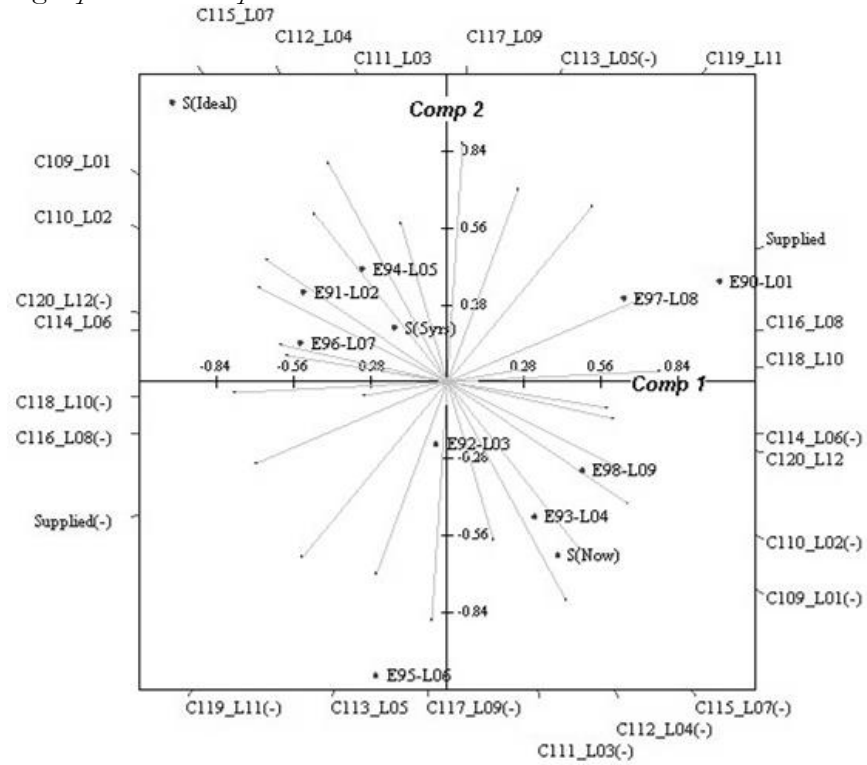


| **Element** | | | |
|---|---|---|---|
| E90-L01 | Obtain a clear direction from Exec & Board | E96-L07 | Review of organisational structure (retain & recruit where needed) |
| E91-L02 | Understanding our options – building upon our strengths | E97-L08 | Understanding of commercial & financial implications |
| E92-L03 | Briefing consultation a senior management presence (communication) | E98-L09 | Continue to market our new brand – winning work/building a brand |
| E93-L04 | Develop and drive leadership | S(Now) | My company now |
| E94-L05 | Implement a suitable ICT system to improve margins and performance monitoring | S(5yrs) | My company in five years |
| E95-L06 | Controlled expansion – produce a clearly defined development plan. | S(Ideal) | Ideal company |

| **Bipolar Constructs** | | | |
|---|---|---|---|
| *Supplied* | Operational capacity | *Supplied(-)* | Governance |
| C109_L01 | Making better/informed decisions | C109_L01(-) | Poor decisions |
| C110_L02 | Move into external market | C110_L02(-) | Stay as we are – careful behaviour |
| C111_L03 | Seeing opportunities | C111_L03(-) | Not seeing opportunities |
| C112_L04 | A common ground | C112_L04(-) | Conflict |
| C113_L05 | Current challenges | C113_L05(-) | Current preferences |
| C114_L06 | Successful in new workstreams | C114_L06(-) | Building upon our successful workstreams |
| C115_L07 | Good starting point, more chance of successful growth | C115_L07(-) | Get off on the wrong foot |
| C116_L08 | Upskilling – better service delivery – new & current | C116_L08(-) | Poor service delivery – new & current |
| C117_L09 | Sufficient resources to do this | C117_L09(-) | Insufficient resource to do this |
| C118_L10 | Focus upon core areas | C118_L10(-) | Diversify into new areas |
| C119_L11 | No impact on current delivery | C119_L11(-) | Impact on current delivery |
| C120_L12 | Responsibilities lie with current teams | C120_L12(-) | New teams/projects to deliver external work |

The Principal Component Analysis initially extracted four components which accounted for 77% of the variance. The researcher completed a further analysis that extracted two

components, accounting for 54% of the variance. This also ensured that each component was represented by at least three variables. The first principal component is concerned with Growth Direction, discriminating between focus on core areas & stay as we are and diversify into new area and change; this represented 31% of the variance. The second component is concerned with resources, discriminating between sufficient resources; therefore, no impact on current operations and insufficient resources; therefore, impact on current operations; this represents 22% of the variables.

*Figure 22 Yellow group's decision recipe*
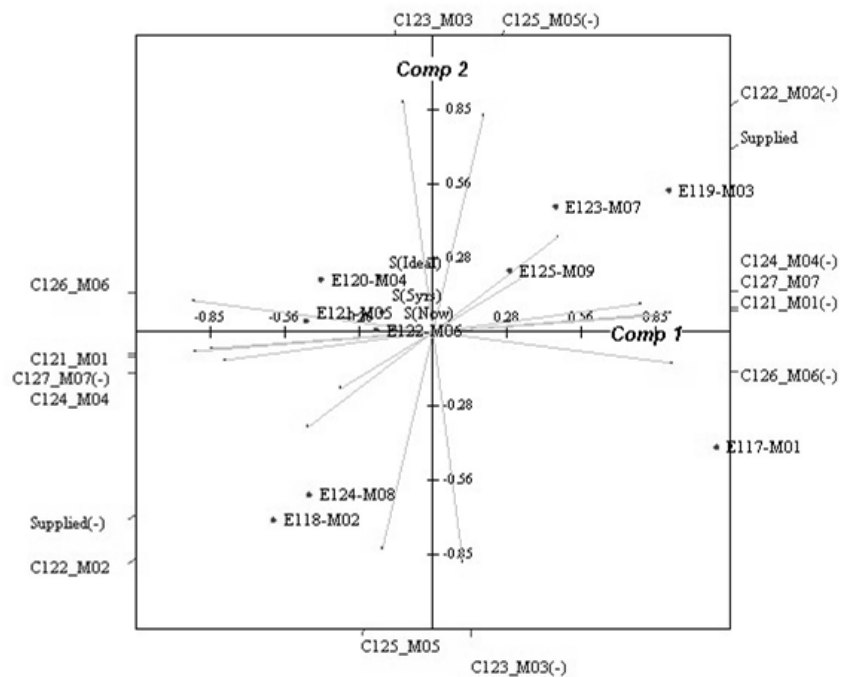


### Element

| | | | |
|---|---|---|---|
| E117-M01 | Agreement between two parties – external growth is the right approach | E123-M07 | Networking and forming links |
| E118-M02 | Planning the project – getting to the detail | E124-M08 | Ensure the structure supports new work |
| E119-M03 | Growing the company name in external market | E125-M09 | Implement of a new ICT system to improve confidence and performance |
| E120-M04 | Impact assessment on delivery | S(Now) | My company now |
| E121-M05 | Building foundations – max skill base | S(5yrs) | My company in five years |
| E122-M06 | Improve communication | S(Ideal) | Ideal company |

### Bipolar Construct

| | | | |
|---|---|---|---|
| Supplied | Operational capacity | Supplied(-) | Governance |
| C121_M01 | Risk is too big | C121_M01(-) | Risk is worth taking |
| C122_M02 | Being left behind | C122_M02(-) | Keeping up |
| C123_M03 | Having the right resources to deliver | C123_M03(-) | Not having the right resources to deliver |
| C124_M04 | Quick & risky growth | C124_M04(-) | Slow/secure growth |
| C125_M05 | Contractor of choice | C125_M05(-) | Internal contractor |
| C126_M06 | Changing what we do | C126_M06(-) | Continuing with what we are good at |
| C127_M07 | Sustainable growth | C127_M07(-) | Over commitment |

The Principal Component Analysis initially extracted three components which accounted for 76% of the variance. Through further analysis, the researcher completed a further analysis that extracted two components, accounting for 63% of the variance. This also ensured that each component is represented by at least three variables. The first principal component is concerned with Growth Direction, discriminating between sustainable

growth, internal growth and changing what we do, which is an over commitment; this represented 43% of the variance. The second component is concerned with resources, discriminating between having resources and being an internal contractor and not having resources and being a contractor of choice; this represents 20% of the variables.

*Figure 23: Red group's decision recipe*
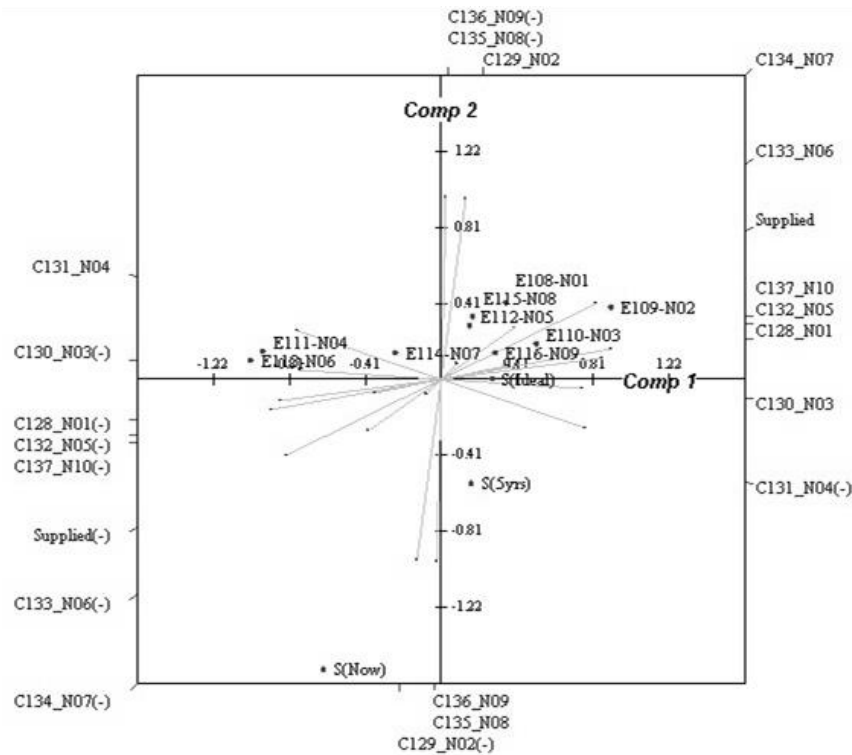


| Elements | | | |
|---|---|---|---|
| E108-N01 | Define and follow XYZ's objectives not ABC's | E114-N07 | Making informed decision |
| E109-N02 | Working towards an identity we are proud of – commercial and independent contractor | E115-N08 | Build a strong commercial team |
| E110-N03 | Engage stakeholders | E116-N09 | Understanding of XYZ's vision |
| E111-N04 | Retain and recruit the right people | S(Now) | My company now |
| E112-N05 | Winning new contracts | S(5yrs) | My company in five years |
| E113-N06 | Implement a new contractor system | S(Ideal) | Ideal company |

| Bipolar Constructs | | | |
|---|---|---|---|
| *Supplied* | Operational capacity | *Supplied(-)* | Governance |
| *C128_N01* | Management | *C128_N01(-)* | Leadership |
| *C129_N02* | ABC driving the change | *C129_N02(-)* | XYZ to drive change with CEO |
| *C130_N03* | Know our weaknesses and work on them | *C130_N03(-)* | Know our strengths and take advantage of them |
| *C131_N04* | Improve leadership & processes | *C131_N04(-)* | Improve attitudes and skills |
| *C132_N05* | Resource development | *C132_N05(-)* | Identity development |
| *C133_N06* | Managing how we are now | *C133_N06(-)* | Managing where we will be in the future |
| *C134_N07* | Getting the contracts & planning them | *C134_N07(-)* | Delivering the contracts well and keeping them |
| *C135_N08* | Taking on risks and challenges | *C135_N08(-)* | Not taking on the challenge – staying as we are |
| *C136_N09* | Thinking in a different way | *C136_N09(-)* | Thinking the same |
| *C137_N10* | Developing an internal culture of change | *C137_N10(-)* | Developing an outside perception of change |

The Principal Component Analysis initially extracted four components which accounted for 90% of the variance. Through further analysis, the researcher completed a further analysis that extracted two components, accounting for 63% of the variance. This also ensured that each component is represented by at least three variables. The first principal component is concerned with Organisational Focus, discriminating between operational

management and strategic management; this represented 38% of the variance.  The second component is concerned with identity, discriminating between stay as we are now as the Board drives growth and thinking about the future agenda; this represents 25% of the variables.

### 4.3.3.4  A return to the individual

Through the use of the PCA it has been possible to identify the dimensions that each decision-maker uses to create their own decision recipe and their social groups.  This provides an opportunity to further explore how individual experiences, interpretations and actions influence inter-individual construing and vice versa.  Tables 27-30 provide a summary of each individual's PCA compared to their group's PCA.

*Table 27: SMT green individual and social Principal Component Analysis*

| | **Individual** | | **Group** | |
|---|---|---|---|---|
| **DM** | **1st Component** | **2nd Component** | **1st Component** | **2nd Component** |
| A | Seeks organisation **control** through whilst balancing **operational** capacity and **strategic** capability. | Considers the **future direction** in terms of what the **organisation currently does** vs **what the organisation could do**. | **Growth Direction**<br><br>Focus on core areas & stay as we are<br>**vs**<br>Diversify into new area and change | **Resources**<br><br>Sufficient resources; therefore, no impact on current operations<br>**vs**<br>Insufficient resources; therefore, impact on current operations |
| E | Seeks a **Management Plan** that is **targeted & achievable** (success) rather than ambiguous & unattainable (risky). | Considers the **strategic direction** in terms of either **internal** or **external**. | | |

Table 27 provides an overview of the Senior Management Team Green group.  The Principal Component Analysis of individual decision-makers A & E suggests that they are both concerned with managing the implementation of growth within the organisation. Decision-maker A considers this in terms of control (operational capacity and strategic capability), whilst decision-maker E considers the need for a management plan (achievable rather than ambiguous & unattainable).  Their discussions focused upon operational factors and, in particular, operational resources that would be needed to facilitate growth.  Such discussion are represented by the group's second principal component, 'resources', as decision-makers discussed the need to develop a good starting point for growth.

The decision-makers' second principal components are similar in nature as both consider the future/strategic direction of the organisation in terms of what the organisation currently does (A) & internal growth (E) vs what they could do (A) & external growth (E). The first principal component of the group's RepGrid reflects such a theme as members agree on growth direction as either being focused on their organisation's core areas and remaining within their current business model or diversifying into new areas and changing their business model.

*Table 28: SMT blue individual and social Principal Component Analysis*

| | Individual | | Group | |
|---|---|---|---|---|
| **DM** | **1st Component** | **2nd Component** | **1st Component** | **2nd Component** |
| D | Considers growth in terms of its **implementation** deliberated as either **barriers** to overcome or **enablers** | Seeks a **fast-paced course of action** through either **strategic development** or **operational tactics** | **Strategy & pace of change**<br><br>Steady pace of change as strategies are set by us<br>**vs**<br>Slow pace of change as strategies are set by others | **Identity**<br><br>Part of the group and lack of identity<br>**vs**<br>Commercial contractor with clear identity |
| G | Seeks improvement in terms of **internal perception** of future direction in terms of **develop** or potential **immobility** | Considers the need to change **external identity** and defines the options as either **new – external market –** or **old – internal market** | | |

Table 28 provides an overview of the Senior Management Team Blue group.  The Principal Component Analysis of the views of decision-makers D and G suggests that, whilst both are highly committed and supportive of change, they focus upon different factors of organisational growth.  Whilst decision-maker D focused upon implementation and pace of action, decision-maker G considered subjective factors such as perceptions and identity, both internally and externally.  Interestingly, both views are incorporated within the group RepGrid.  The group's first principal component concerns strategy & pace of change and appears to directly reflect both principal components of decision-maker D.  The group's second principal component incorporates identity issues raised by Decision-maker G.

*Table 29: MMT red individual and social Principal Component Analysis*

| | Individual | | Group | |
|---|---|---|---|---|
| **DM** | **1st Component** | **2nd Component** | **1st Component** | **2nd Component** |
| B | Seeks greater **ability to compete, in terms of a lack of external** information and **viable up-to-date information** | Considers growth in terms of **direction** with potential in either the internal **current market** or **external opportunities** | **Organisational Focus**<br><br>Operational management **vs** Strategic management | **Identity**<br><br>Stay as we are now as Board drives change<br>**vs**<br>Thinking about the future and our agenda |
| F | Seeks **operational action, supporting new things** vs **overthinking potential risk** | Considers successful growth in terms of **planning** both **managerial** and **day-to-day** activities | | |
| I | Considers growth in terms **of business perception** as either being **prepared** or **unconfident** | Considers **flexibility** as an important consideration linked to either **effective decisions** or **indecisiveness** | | |

Table 29 provides an overview of the Middle Management Team Green group. The PCA of the individual decision-makers (B, F & I) demonstrates factors that are associated directly with the organisational focus of growth as individuals consider enablers or disablers of growth within the organisation. Unsurprisingly, all of the principal components of all decision-makers are represented within the first principal component of the group. The comparison of the individual PCA against the group's PCA did however offer some surprising results. The second principal component of the groups was defined as identity, which the group has associated with change; it is possible to conclude that such factors have emerged through the group's social interactions rather than from a single decision-maker themselves.

*Table 30: MMT yellow individual and social Principal Component Analysis*

| | Individual | | Group | |
|---|---|---|---|---|
| **DM** | **1st Component** | **2nd Component** | **1st Component** | **2nd Component** |
| C | Seeks growth in terms of gaining strategic **commitment**, either **calculated** or **emergent** growth. | Considers growth in terms of **directional opportunities** viewed as either **secure** or **risky**. | **Growth Direction**<br><br>Continuing with what we are good at to achieve sustainable growth<br>**vs**<br>Changing what we do which is an over commitment | **Resources**<br><br>Having resources and being an internal contractor<br>**vs**<br>Not having resources and being a contractor of choice |
| H | Seeks **sufficient resources** to achieve growth gained through **developing internal** vs **outsourcing and recruitment**. | Consider the **impact of growth** on reputation in terms of either **failure** or **success**. | | |
| J | Seeks to understand the **direction** of growth as either **internal/targeted** vs e**xternal/ unknown**. | Considers the **need to grow** in terms of being **pressed to change** and **wanting to change**. | | |

Table 30 provides an overview of the Middle Management Team Green group. The decision-makers individually considered the growth direction of the organisation as being associated with security, success, internal vs risk, failure and external. The group's first Principal Component Analysis incorporates such views as defining the growth direction of the organisation in terms of changing what the organisation does, thereby there is the potential for over commitment, vs continuing with what the organisation is good at in order to achieve sustainable growth.

The principal components of the individual decision-makers also focused upon the impact of change for the organisation, for example, gaining commitment, resources, the need for change and reputation impact. This principal component is focused upon having the correct resources to deliver, dependent upon the direction the organisation takes.

**4.3.3.5 Phase 2:  summary**

Phase 2 has gained a focus upon how decision-makers perceive the organisational decision within a social context, addressing the second sensemaking question of "How can <u>we know</u> what <u>we think</u> until <u>we see</u> what <u>we say</u>?"  This brought into focus a discussion of personal meanings as decision-makers interacted with each other to discuss similarities and differences.  This phase concluded with the elicitation of four group RepGrids, facilitated through a group interview.  The results were analysed using a series of steps in order to establish the social dimensions of the organisational decision.

This phase has exposed how decision-makers' personal decision recipes influence their interactions and discussions within a social context and further expose the potential factors that either influence or hinder the organisational decision, as decision-makers have expressed their personal and social orientations and goals.

### 4.3.4    Phase 3: the organisational layer

Phase 3 builds upon the prior two phases and explores the intertwined stories of the individual and group decision recipes in order to define and explore the organisational decision landscape from the personal constructs of the decision-makers.  This phase focuses the decision-makers' attention on the third and final sensemaking recipe of "How can we know what the decision landscape is becoming until we see our orientations and actions?"  An opportunity is provided for decision-makers to stand back, reflect and move beyond their personal meaning, orientations and goals.  There is a consideration of their social interactions, the possibility of agreement, disagreement, understanding, redirection and even change.

### 4.3.4.1  Thematic analysis

In order to define the organisational decision landscape, the personal constructs collected and analysed in Phase 1 and 2 within the RepGrid interviews were reframed using inductive thematic analysis.  The inductive thematic analysis involved several iterative steps, defined in Table 31 (Braun & Clarke, 2006:87), which were sorted to provide a visualisation, a map, of the organisational landscape for the purpose of illuminating the boundaries, content, structure, and conclusions of the decision.

*Table 31: Inductive thematic analysis process*

| | |
|---|---|
| 1 | The findings and analysis presented in Phase 1 and Phase 2 were reviewed by the researcher.  This familiarisation step ensured that her initial reflections and analysis remained true to the decision-makers' views. |
| 2 | An initial coding system for the individual and group bipolar constructs was created that: Coded the preferred pole of each bipolar construct together with the overall preferred bipolar that represented the RepGrids. Colour coded each decision recipe for the purpose of visualising embedded patterns within the data. |
| 3 | Refocused analysis to a broader level of searching for themes, rather than codes.  This step involved the researcher grouping construct poles together into related themes.  As each theme emerged, the researcher provided a brief description of what this theme meant to the decision-makers.  An output of step 3 was an initial visualisation of the themes within the organisational decision landscape. |
| 4 | Building upon the previous step, each theme was evaluated in terms of its internal homogeneity and external heterogeneity (Patton, 1990).  This step ensured that each theme was cohesive and meaningful, with clear and identifiable distinctions between themes.  This step did involve reworking the themes, creating new themes or moving constructs into more appropriate coded themes.  During further analysis, the 14 themes were further refined in step 4 into sub-themes representing distinctions within the data. |
| 5 | The final step involved the researcher refining the themes themselves.  This involved a similar process to the previous step, but in relation to the entire decision landscape.  Upon further investigation, the results from the inductive thematic analysis were further refined into four distinct areas that provided a framework by which to present the Organisational Decision Landscape to the decision-makers for further discussion. |

### 4.3.4.2 The four emergent decision landscape zones

During the refinement phase of the inductive thematic analysis, four distinct topics (referred to as zones within the decision landscape) emerged from the 14 initial themes. The four zones represented the content of the organisational decision landscape.

1. Operational Management, concerned with performance, productivity, capacity and the day-to-day management of the organisation.  Elements and Constructs within this group can be described as inward delivery focused within the organisational decision landscape.

2. Strategic Management, concerned with the future direction of the organisation and externally focused, considering the bigger picture and a focus upon long-term issues.  The consideration of opportunities and threats within the organisation's environment together with the development of strategic options.

3. Normative Management, concerned with developing the organisation's overall vision, values, direction and identity.

4. Operational activities, concern with the day-to-day operations of the organisation.  Due to the nature of the organisational decision, unsurprisingly few constructs and elements related to this category.

**4.3.4.3 Defining the organisational decision landscape**

In a conclusion to the inductive thematic analysis, the researcher revisited the results, using insights from a systems thinking perspective and the guiding principles of an embedded case study. A holistic perspective promoted the exploration and understanding of the dynamically interacting levels and parts of the organisational decision landscape without relying on reductionist visualisation often found within problem-solving and decision-making research. The adoption of the Viable System principles proved to be fruitful in framing personal constructs contained within the individual and social decision recipes, providing the ability to map interrelations, tensions, dilemmas and potential strategies between the emergent zones. This is summarised in Figure 24. The analysis highlighted several choices (pathways) and defined further questions for the decision-makers to consider within the last facilitation session. The questions were defined as:

- What enablers can be mobilised to achieve the strategic objectives?
- What barriers might impede progress?
- What opportunities exist now or may appear on the horizon to facilitate progress?
- What threats could create obstacles?
- What roles do the decision-makers play in influencing the decision landscapes and the roles of the others within it and in what direction is their influence projected?

The content of the map was used within the decision-maker facilitation exercises as all constructs and elements were presented back to the organisational decision-makers using their own terms within a social setting. The following section provides an abstract of the key findings for the purpose of the research questions.

*Figure 24: Organisational decision landscape*
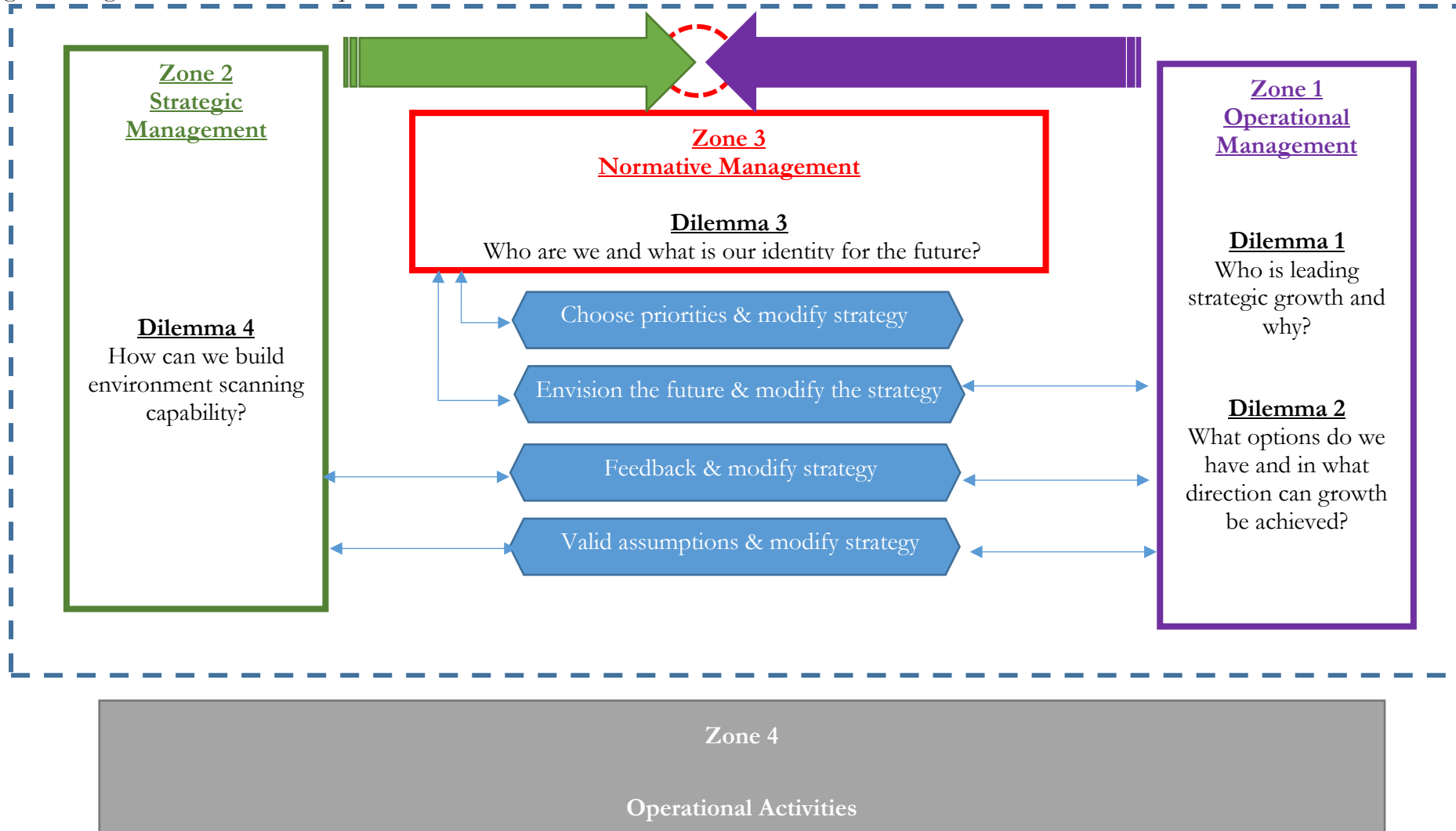
**The content of the organisational decision landscape**

The organisation decision was defined as "What do you think are the activities that need to be implemented in order to double the company's current income within a three year period?" The content of the organisational decision landscape has revealed four strategic dilemmas, as follows:

**Strategic Dilemma 1: Who is leading strategic growth and why?**

Decision-makers perceived that there was a lack of alignment between how their Board, directors and senior management viewed the company's growth in the short to medium term. They further highlighted that the role of the Board and Directors is pivotal to provide clarity of the organisational growth strategy. There is a perceived need to provide a "common understanding" of what "sustainable growth" looks like and how it is achieved, whether that is from the perspective of the Board or the Directors.

The perceived disconnect and lack of agreement within and between the Board and directors was viewed as a key barrier as it hampers the ability to prioritise both issues and strategies, thus limiting the effectiveness and performance of the organisation.

The decision-makers confirmed that it was important to consider the following questions:

- WHY is change important to the directors and the Board?
- WHO is making the decisions regarding the growth strategy?

**Strategic Dilemma 2: Options and directions of strategic growth**

The decision-makers' personal constructs indicated two fundamental trade-offs that needed to be considered. They appeared to be interrelated and related to an apparent clash between the choices concerning the direction of growth and the potential options available for the decision-maker.

Some decision-makers had a preference for growth having an internal focus considering margins and internal practices of stabilisation and internal ground. As such, this was associated with 'security' as 'work is handed to the company', 'time-tested work' and an option that 'reduced risk'. Growth would be achieved through a focus upon 'strengths', 'expanding in areas we are good at' and 'staying with what we know'. This option was

considered to 'slow/secure', 'planned' and 'controlled' growth. The remaining decision-makers demonstrated a frustration for an approach that was internal and stayed within their comfort zone. These decision-makers viewed this option as being 'insular', 'wearing blinkers', 'doing the status quo', 'staying the same' or even 'contracting' due to a 'restrictive way of thinking'.

Decision-makers who were frustrated with a slow and internal growth (described above) referred to choices aligned with diversification, representing a need to have an external focus developing new services and products and attracting new customers. This option was described as being associated with 'accepting risks', 'diversifying', 'forward thinking', 'trying new things/commitments' and 'working outside of current practices'. Decision-makers discussed current barriers, whilst some believed that there was 'nothing wrong' with their current way of being, discussing the potential of 'losing [the] confidence of the Board', 'being known for trying and failing' and losing 'what we already have'. Such views appear to be focused on fears of *sacrificing* past achievement for potential success. Other decision-makers, however, considered this option to be 'quick/risky', 'unstructured', with associated barriers of 'changing before we have the ability', it being 'too big a step' or that there was a lack of proof that the new work would be successful.

It was important to further consider:

- What resources do the company have, e.g. assets, IP, people, etc.?
- What are our company's capabilities (functions)?
- What are the problems that we current face with current products and services?
- What type of change is most suitable?
- How quickly do we need/want to change?
- How much risk do we have to or want to take?

**Strategic Dilemma 3: Who are we and what is our identity for the future?**

During times of change or organisational growth, decision-makers do tend to focus upon discussion of identity and vision especially when the perceived identity of the organisation is not perceived to match its operational delivery. Such views can be seen within the organisational decision landscape as a way to gain clarity and guidance with regard to addressing the first and second strategic dilemmas. Decisions makers demonstrated a need to identify and further define the identity and the ethos of the organisation.

It was important to further consider:

- Who do we want to be/who are we expected to be?
- What is fundamentally important to the company? (Values)
- What does the company do better than others do? (Competencies)
- How does the company envision and measure success? (Aspirations)

**Strategic Dilemma 4: How to build environment-scanning capability**

Environmental scanning serves as an early warning system enabling decision-makers to foresee favourable and unfavourable influences and initiate strategies that will enable their organisations to adapt to the environment. This is currently viewed as a weakness, associated with a lack of 'commercial awareness', 'poor or outdated tendering information' and 'limited market knowledge'. There is an assumption that the organisation lacks the capability for systemically sensing and reacting to the environmental changes that are building up within the environment – in other words an 'outside and future' perspective. This could be attributed to a number of factors: 1) this function is also missing within the wider Group at a higher recursive level; 2) there is a tendency to focus upon environmental scanning in terms of an 'internal and now' perspective, a narrow view of the environment in relation to its current operations, customers, suppliers, etc.; 3) traditional management practices such as the projection of the present into the future in order to develop short- to medium-term business plans tends to diminish a perspective of anticipation, a deliberate process of expanding awareness and understanding through future scanning, and the clarification of emerging situations, scanning for opportunities and threats in the external environment; 4) traditional approaches to environment scanning tend to focus on linear adaptive models and involve the use of a checklist to assess the environment in terms of considering it a static thing and focusing upon factors such as goals, plans and actions that are designed to steer the organisation towards its objectives, through the assessment of governmental changes – new legislation, new enforcement priorities; competitive changes – adoption of new technologies, new competitors, price changes, new products; supplier changes – changes in input costs, supply changes, changes in number of suppliers; and market changes – new uses of products, new markets.

It is important to further understand the process, noticing and interpreting the environment. If the organisation is to have insight into what to pay attention to and what to ignore, it could then be used to pinpoint the type of data that needs to be collected and the type of analysis that needs to be done.

Decisions regarding:

- What is happening externally that will affect the company?  What are the driving force
- Who are our potential customers?  What are their strengths and weaknesses?
- What does it take to be successful in such markets?
- What are the customer and market opportunities?

### 4.3.4.4 Decision-makers and their organisational decision landscape

The landscape was presented in a depersonalised manner, giving decision-makers an opportunity to see the decision landscape from the perspective of the wider group. Through a systemic perspective that encouraged closed-loop thinking, decision-makers were able to revisit the organisational decision with a focus upon continuing interrelated processes, rather than one-way relationships, cause and effects (Ackoff, 1978).  The organisational decision landscape was explored using a sliding-door approach, as the group embarked upon a journey of exploring the dichotomous nature of the pathways.  In doing so, emphasis was given to the meaning and understanding of orientations rather than goals and agreement.  Listening to the different voices behind the organisational decision provided a focus on distinctions between the drivers, and values that sit behind operations and strategic perspectives, rather than a focus upon similarities:

> *"In the last discussion [Phase 2] we focused on how we are similar in terms of words that we used.  I found that I was defending my position, my personal opinions of growth and why it was important to me.  I still believe that my view is correct but now I can see more clearly why others have the view that they do.  I do not normally consider that view within my organisational role."* (B)

> *"Other people considered my view to be about supporting others, the customer, getting people prepared, and supporting what the directors want.  To me it's about getting things done."*  (F)

> *"Others comment on the importance of information and our systems.  Some focus on internal uses that support the current business while others focus upon its external uses, which is seen as a current weakness.  I have been focused upon the internal and improving confidence and reliability."* (I)

As the decision-makers glimpsed the ways of others there was an acceptance of the themes and dilemmas, and their meaning.  Decision-makers demonstrated a consideration for the

ways that the organisational landscape is structured, its complexity and the interrelated themes and unique meanings that sit within it.  The visualisation provided a framework that illuminated the tensions within and between recipes that built the organisational decision landscape:

> *"This helps understand how strategic and operational concerns can be balanced.  We are going through a successful rebranding, [which] will help define the company's identity in the future."  (A)*

> *"This exercise has highlighted the importance of balancing 'here and now' and 'now and future'. The landscape demonstrates as a team we consider all of these elements.  I guess this supports the need of multiple perspectives, even those I don't necessarily agree with in terms of how we achieve strategic growth."  (D)*

> *"This drives home the importance of defining our brand, what we stand for!  Once we know what this is then we can consider our options and understand what it means to be successful."  (G)*

> *"It's a balancing act, more complex than the first exercise of agreeing what activities are essential for growth.  Everything is connected.  It is not a simple decision."  (H)*

The initial organisational decision was defined as "What do you think are the activities that need to be implemented in order to double the company's current income within a three-year period?" through the consideration of the third and final sensemaking question: "How can we know what the decision landscape is becoming until we see our orientations and actions?"  The decision-makers reflected upon their personal and social orientations and made the following comments:

> *"The original decision was concerned with how we implement growth, but there are wider issues that need to be considered.  Specifically, the organisation's identity.  We need to decide what our identity is before a decision [about] growth can be achieved."  (G)*

> *"It is interesting that our recent drive to promote the group's values did not appear within the landscape.  Previously, I thought culture and getting the ops ready for growth was the key, but addressing our identity issues and going further than branding is important."  (D)*

> *"The decision now needs to consider who is driving this strategic growth and for what purpose. Who we will be in the future is dependent upon who drives this change.  It is not about what we do but how we influence.  I can now see how difficult [decision-maker A's] role is.  Previously I*

*thought their reluctance to change was due to control and achieving operational targets, but they are*

*faced with balancing now, the future, their aspirations and the Board's."  (B)*

*"There isn't a simple answer.  Further consideration of these dynamics is needed."  (C)*

### 4.3.4.5 Phase 3: summary of analysis

Phase 3, built upon the previous sensemaking questions, has explored how decision-makers cannot know what the decision landscape is becoming until they have seen their own orientations and actions.  Through an inductive analysis, interrelated themes and decision dilemmas were defined, providing an opportunity to reflect on and consider hidden assumptions and meanings as a whole, not just as an individual or group.  To conclude the inductive thematic analysis, the adoption of the principles of the Viable System Model (Beer, 1979) provided a further opportunity for reflection and change as individuals stepped into the shoes of others and viewed the created organisational decision landscape.

## 4.4    CHAPTER SUMMARY

The significance of this chapter is that it gives life to the created organisational decision landscapes and the ways they are created, revealing why decisions are made the way that they are.  Each phase has provided a different emphasis on the data collection and analysis. The first focused decision-makers' attention on their own personal decision recipes, their unique experiences and meaning, through reflective and structured social interactions, ultimately enabling them to gain an understanding of how they create and perceive the organisational decision landscape.  Phase 2 built upon the individual experiences of the decision-makers but also focused upon agreements and differences within a social decision context, thus facilitating a common ground whereby social interactions could take place. The social phase (Phase 2), demonstrated to decision-makers the impact their personal recipes had upon their social interactions and vice-versa, as they continued to view the decision landscape from their own personal recipes, limiting how much of the decision landscape they were able to view.  The final phase promoted the significance of decision-makers adopting an 'as if' perspective for the purpose of improving understandings and setting aside part of themselves, because decision-makers are able to step into the recipes and landscapes of other decision-makers.  The methodology further addressed sensemaking aphorisms (Weick, 1979) that decision-makers cannot know what they think until they see what they say, and that decision-making groups cannot <u>know</u> what <u>they think</u>

until <u>they see</u> what <u>they say</u> but ultimately: "How can decision-makers know what the decision landscape is becoming until they see their orientations and actions?"

The chapter has provided a map of the organisational decision landscape by unpacking and articulating the 'ways' that such landscapes are created through personal and social decision recipes.  Further, it has presented the interrelated over-arching themes within the organisational decision landscape, allowing the organisation to describe and understand the '*ways*' organisational decisions occur, and understand '*why*' they make the decisions that they do.  The next chapter discusses the results outlined within this chapter in relation to the research questions and the implications of these findings to both theory and practice.

# CHAPTER 5     DISCUSSION

*"My construction of your outlook does not make me a compliant companion, nor does it keep us from working at cross purposes. I may even use my construction of your view as a basis for trying to undo your efforts. But there is something interesting about this; there is still a good chance of a social process emerging out of our conflict, and we will both end up a good way from where we started." (Kelly, 2003:16)*

## 5.1     CHAPTER INTRODUCTION

Chapter 4 presented the findings of a three-phased data collection and analysis approach, whereby organisational decision-makers invested time in the exploration of the 'ways' that they made sense of an organisational decision. This chapter seeks to discuss the significant findings within the context of the literature, building upon earlier reflections of the decision-makers and the research during the empirical study.

## 5.2     RESEARCH APPROACH

This study has presented an innovative methodology that elicited and visualised the complex and multi-layered phenomenon that is an organisational decision (Figures 1 & 24). This study incorporated a single embedded case study methodology, permitting the study of a real-time organisational decision. The methodology endorsed the exploration and analysis of sub-units and their interactions, thus allowing for an in-depth inquiry (Yin, 2003; Scholz, 2002).

Literature has supported the view that organisations are complex, open living systems of heterogeneous interacting networks (March, 1994; Huber, 1991; Levitt and March, 1988). This concept is embraced to depict an organisational decision as a system. Further still, an embedded case study methodology encapsulates the underpinnings of studying organisational decisions as a system, one consisting of parts and three embedded units of analysis. Firstly, the individual (section 4.3.2) was examined, consisting of the decision-makers' personal and internal choices and their personalised frame of reference (or 'decision recipe'). Secondly, the social (section 4.3.3) was explored, gaining an understanding of the ways decision-makers discussed and made choices within the social context of a group. Thirdly, the final unit considered the organisational decision landscape as a whole and provided an in-depth appreciation of what 'directed' the decision-makers'

understanding of, and interaction with, others and the organisational decision (section 4.3.4).

Kelly's (1955 ) RepGrid technique supplemented by Hinkle's (1965) laddering techniques enhanced the individual and group interview methods, provided a reliable way to elicit, categorise and analyse the organisational decision. Further, they ensured that the ways that decision-makers' made sense of or construed the organisational decision remained central to this study. Thus, sensing of the decision was operationalised in accordance with Personal Construct Theory (Kelly, 1955) and Organisational Sensemaking (Weick, 1995).

Central to this empirical study is the consideration of three sensemaking questions: what, how and why (Weick, 1995). More practically, this reflected Weick's (1979) three signature sensemaking questions to deliberate the social embeddedness of 'how' organisational decision-makers sensed the decision: 1) Phase 1: The individual - "How can I know what I think until I see what I say?" 2) Phase 2: The group - "How can we know what we think until we see what we say?" 3) Phase 3: The organisation - "How can we know what the decision landscape is becoming until we see our orientations and actions?" An investigation of such questions required appropriate techniques that described the content, structure, and conclusions of individual social construing and to do so explicitly enough so that they could be viewed, examined and measured. Personal constructs were adopted as the unit of analysis, permitting an in-depth look 'under the hood' at individuals and groups in a manner that was open, reflective and subjective, whilst still remaining true to the words, thoughts and meanings of the decision-makers.

The RepGrid provided the ability to measure and analyse snapshots within the ongoing organisational decision, in both a qualitative and quantitative manner, through the elicitations of the personal constructs. The combination of qualitative and quantitative data within the RepGrids lent itself to a series of analyses. Qualitative information illuminated the decision-makers' actions, clarifying their personal meanings, values, and preferences, whilst the ratings within the RepGrid complemented the decision-makers' descriptions and provided quantitative data that gave a measure for assessing the relationships between the elements and constructs, gaining a representation of how decision-makers structured the content of the decision (Goffin, 2002; Jankowicz, 2005; King et al., 2010). The analysis characterised as inductive included both qualitative and quantitative analysis and provided in-depth descriptions of the organisational decision from the decision-makers' views.

Finally, this study utilised a comprehensive System Thinking model, known as the Viable System Model (Beer, 1979) to frame decision-makers' beliefs, values, experiences, and their own internal inconsistencies and dilemmas, each of which are unique in an important way. The VSM was used as an inductive participatory personal construct framing device to assist with the exploration of an organisational decision. Using the VSM as an inductive device shifts the decision-makers' gaze away from the outcome of a decision towards the framing of its content and the structure of the decision. The VSM is used to pause the process of organisational decision-making, to provoke managers to investigate further and explore a more useful account of what is going on; thus, gaining a refreshing view of the purpose of the organisational decision from the perspective of each decision-maker.

Using the VSM as an inductive framing device provides decision-makers with a curiosity to search for a deeper pattern that thrives on having multiple views. Reviewing such patterns allows managers to explore and focus upon the ways organisational decisions are 'created', the invisible, subjective and social parts of an organisational decision. This approach does not search for agreement or consensus or seek to solve a puzzle. Instead, VSM is used to move beyond a process account of organisational decisions, giving attention to things that are not obvious, such as experiences, values and perceptions (captured by personal constructs) within an ongoing process.

The visualisation of what the decision-makers have enacted provides a mechanism to escape the trap set in the decision-makers' own minds and their social groups. This permits organisational decision-makers to think differently about what they have created. Thus, the VSM is not only used as a framing device but also as a diagnostic tool that can be used to structure and elicit further reflection on the nature of the organisational decision landscape. The bi-polar nature of the decision-makers' personal constructs is used as a springboard for action, as they expand awareness and understanding, question current choices and consider other possibilities.

Organisational decisions are seen to operate within continual tensions: on the one hand, they embody established ways of thinking, policies and practices, informed through experiences, standards and procedures; on the other hand, there is a need to innovate, learn, adapt and change. The VSM provides decision-makers with a way to create a viable organisational decision, as it is designed with the requisite variety. The context that lies within System 4 (outside and future) and System 3 (inside and current) can be negotiated and balanced through consideration of the dynamics within the Metasystem.

Traditional decision-making research is rooted within the mainstream presumption of rationality, certainty, predictability and control. Inherent in this position is the need to build consensus and the consideration of choices and outcomes for the purpose of achieving corporate and operational objectives. Using the VSM as a framing device offers an alternative yet effective process. Cohesion is adapted rather than consensus. Instead of evaluating options and outcomes, connections and tensions are reviewed, gaining a holistic perspective.

Organisational decision research is often divided into one of the following: the organisational decision-maker (Individual factors), the organisation (Internal social factors), the organisation's environment (External factors) and the decision context (Decision specifics). The VSM permits the mapping of both the private and social journeys of organisational decision-makers, due to its recursive nature. The recursive nature of the model also permits an exploration of the decision body (who makes a decision) at multiple levels and units within the organisation, giving equal attention to multiple objectives and needs; after all, decision-making within organisations occurs at all levels and within all units of the organisation (Lewis et al., 2000; Osmani, 2016).

The VSM seeks to look at the purpose of the decision from each perspective and consider interactions and tensions, providing a more formalised approach that can address the following questions:

- What can personal constructs tell decision-makers about the decision, themselves and others?
- What has caused decision-makers to arrive at the decision in the first place?
- What are the frightening sub- and super-patterns that have emerged?

## 5.3 THE ORGANISATIONAL DECISION

The empirical study was set within the context of a maintenance and construction contractor. The study used a purposeful sample and included all decision-makers involved in making the organisational decision. This included the Senior Management Team, representing four directors, and the Middle Management Team, consisting of six contract managers. A total of 10 RepGrid individual interviews and four group RepGrid interviews were completed. All decision-makers took part in the group interviews. In total, 116

elements and 137 constructs were elicited from the decision-makers via the RepGrid technique.

A single decision was explored within the study. This was "What do you think are the activities that need to be implemented in order to double the company's current income within a three-year period?". This decision reflected organisational industry pressures to diversify the company's income in order to reduce its reliance on government grants. Pressures were compounded by the need to balance current limited operational resources and the possibility of commercialisation, change and growth.

A number of significant findings emerged from the empirical study; each are now presented in turn.

### 5.3.1   The unpacking and articulation of experiences

The FORMED methodology encouraged decision-makers to articulate part of their individual decision recipes, and clarify their thoughts and the meaning of the organisational decision. Decision-makers illuminated their intentions and sense of the decision in an idiosyncratic manner. Phase 1 drew attention to the impossibility of any two decision-makers experiencing an organisational decision in an identical manner, in that they each had different standpoints, constructs and decision recipes. This supports Kelly's (1955) Individuality Corollary, which infers that decisions makers live in their own unique experimental worlds. In line with Personal Construct Theory, the decision recipes (Figures 10-19) focused on the personal meanings the decision-makers attached to subjective experiences and their construal of the organisational decision. The analysis revealed the ways that decision-makers use different recipes to make sense of the same organisational decision.

The findings (sections 4.27, 4.3.2.8 and 4.3.2.10) presented 'what' was steering the choices of 'how' they created their organisational decision landscape; more importantly, what lay beneath their understanding of the decision. The individual laddering and pyramiding exercises completed within the individual interviews (section 4.3.2.4) provided indications of the apparent surprise the personal constructs that arose caused the decision-makers, and which led them to further question their own decision recipes and choices (section 4.2.3.1). Despite their initial surprise, they each accepted that their decision recipes did provide a more accurate reflection of what organisational growth meant to them. Further still, the findings have evidenced that decision-makers were also not aware of the limitations that

they were each placing upon themselves as they made sense of the decision. Thus, it is possible to infer that, whilst decision-makers may have believed that they are making a decision in a clear, objective and rational manner, they seldom do so. The findings have demonstrated in what way and how decision-makers are influenced by their prior experiences, illuminating what parts of their experiences (section 4.3.2.2) were used in sensing the decision.

The unpacking and articulation of individual experiences has suggested that decision-makers are unable to make a decision in a blank state of mind. This is supported by two conditions of PCT, the Experience Corollary and Construction Corollary (Kelly), and Wieck's retrospective characteristics of sensemaking. Both theorists emphasise that decision-making always starts with earlier understanding; thus, decision-making is backward facing.

The findings champion the need to conceive the organisational decision from the decision-makers' inner world rather than a focus upon the characteristics of the decision itself or what is going on 'out there' in its environment (Kelly, 1955; Lewin, 1936). The is evidence to demonstrate that an organisational decision is much more than the decision itself An organisational decision is about what and who the decision-maker represents (where that is an individual or a group) when creating it; it is about their experiences, their identity. For instance, Table 23 (which summarises the first Principal Component for each of the 10 decision-makers) when combined with Table 26 (which clarifies the most prominent construct to each decision-maker) describes both the decision itself and the decision-maker. This is summarised in Table 32. Through this perspective, it is possible to infer that decision-makers sense the organisational decision not just through their own experiences but in the ways in which they anticipate the decision, determined by what makes most sense to them, through their internal processes, their distinctions and choices, their actions. Weick (1995:55) clarifies that the sensing of organisational decisions is mischievous: "the sensible need not be sensible… accuracy is nice but not necessary". Instead, the sensing of a decision is about plausibility and interpersonal perception as decision-makers personalise the decision.

Interestingly, literature has commented that 75% of all professionals hold a self-focused worldview (Quinn, Spreitzer & Fletcher, 1995). The second Principal Component can, however, be interpreted as indicating organisation's decision factors, represented by three themes:

1    Company direction for organisational growth (decision-makers A, B, C, E & J).

2    Implementation factors (decision-makers D, F & I).

3    Identity/reputation (decision-makers G & H).

This characterises the complexity and descriptive richness of the organisational decision. It also highlights another important characteristics of Organisational Sensemaking (Weick, 1995), that sensing the decision is grounded in identity. It is argued that organisational decisions begin with the decision-maker(s). The findings demonstrated the importance and impact of the need to focus upon the journey of the decision-maker, not just the decision-maker themselves.

*Table 32: Summary of PCA & predominant constructs*

|   | First Principal Component | Predominant construct |
|---|---|---|
| A | Control | Leader's ability to drive change forward |
| B | Ability to compete | Improving estimating practices |
| C | Strategic commitment | Continue to develop company image |
| D | Implement strategies* second PC | Focus on growth/pace of change |
| E | Management plan | Effective communication |
| F | Action | Plan for change |
| G | Perception | Build on a strong band/direction |
| H | Resources | Sustainable growth/job satisfaction |
| I | Perception | Confidence in our data |
| J | Understanding* second PC | Time-tested work |

This study has embedded a need to pay close attentions to the ways that decision-makers notice, extract cues and elaborate what they extract, further supporting the views of Weick, who argues that sensing is a swift process, which means that decision-makers are much more likely to see products than a process (Weick, 1995). The recipes have provided an illustration to the decision-makers that what they notice is often familiar to them personally, as they use their recipes to filter, classify and compare choices driven from their prior exercise and social interactions. The product has been their decision recipes, visualised through the RepGrid and pyramiding technique, and draws attention to the extracting of cues, another characteristic of sensemaking (Weick, 1995).

### 5.3.2    Influence and interaction

Interestingly, the second phase of the empirical study provided decision-makers with an opportunity to explore the different dimensions and meanings expressed by other decision-makers, acknowledging that decision-makers do not exist in isolation. After all, "working organisations' decisions are made either in the presence of others or with the knowledge that they will have to be implemented, or understood, or approved by others" (Weick,

1995:39).  This draws attentions to Wieck's social characteristic of sensemaking.  This provided the ability to explore a growing perspective within literature that says organisational decisions should be examined as sites of both the collective and the individual in order to move beyond a fragmented and static view of organisational actions (Dewey, 1927; Weick, 1979; Schutz, 2010).

The findings demonstrate the consequences of decision-makers' interactions, supporting the notion that there is not a single underlying 'reality' awaiting discovery (Kahn, 1947; Weick, 1979), as the polarities in individual experiences were exposed through dichotomous constructs.  Yet, initially, decision-makers engaged upon a reinforcing attentional process of recognising similar patterns, propelled through their prior experiences, even when faced with alternative views.  Decision-makers even assumed that they had been given different information, disregarding alternative views as a lack of understanding on the part of others (section 4.3.3.1).  The findings further illustrate the habitual nature of decision-makers, evidenced by each of the four groups focusing upon their similarities and failing to think in ways that others did, dismissing and overlooking their differences.

The findings indicate that each decision-maker tested and confirmed their personal theories and assumptions of their personal decision recipes within a social context.  Each of the decision-making groups categorised the elements and personal constructs of the entire group (all 10 decision-makers), imposing their own meaning and significance on the elements and personal constructs of others.

Further analysis of the decision recipes showed an alignment between the content of the personal decision recipes and their social decision recipes.  Table 33 provides a simple illustration of just one example of how the preferred personal constructs of individual decision-makers evolved into their group's preferred group element.  The decision-makers found this surprising, as they were not always aware of the ways their experiences, values and drivers had a direct influence on their social interactions and, ultimately, the organisational decision.

*Table 33: Individual to social influences*

|  | **Blue SMT** | **Green SMT** | **Yellow MMT** | **Red MMT** |
|---|---|---|---|---|
| **Individual personal constructs** | Focus on growth/pace of change (D) Perception (G) | Leader's ability to drive change forward (A) Effective communication plan (E) | Company image (C) Job security (H) Time-tested work (J) | Estimating practices (B) Plan for change (F) Confidence in data (I) |
| **Group preferred element** | Defined growth strategy (Why? What? & Who?) | Leadership | Deliver to strengths | Commercial team |

Additionally, the findings demonstrate that when decision-makers shared the same preferences they were also able to reach consensus quickly. However, when they faced discrete difference, their social decision recipes reproduced the personal constructs that were most shared, illustrated through the comparisons between the individual and group RepGrids. Additionally, these were supported through the comparisons of the PCA provided in Tables 4.10-4.13. Literature offers insight into this occurrence, arguing that shared preferences are often given more weight in group discussion (Tindale & Kameda, 2000; Halinski & Duxbury, 2015). The Commonality Corollary reinforces the view that we actively seek validation of our worldview, seeking those with similar constructions. There is a wide body of research that acknowledges the importance of commonality between individuals within organisations, referring to such commonality as 'shared understanding', 'shared meaning', 'shared cognitive maps', 'shared mental models', 'shared frame of references' and 'shared schemas'. According to Weick et al. (2005), sensemaking is a way of creating a shared understanding that is plausible enough for a group to move towards action through an enacted reality. This allows individuals to interact, constructing accounts that allow them to comprehend the world and act collectively (Starbuck & Milliken, 1988; Weick and Roberts, 1993; Gephart, 1993; Eden, 1992; Maitlis, 2005; Sandelands & Stablein, 1987). The findings and analysis of Phase 2 provide indications of the symptoms of 'group thinking'.

Additionally, findings have suggested that shared understanding is not always about shared meaning. Weick (1995:42) cites Czarniawska-Joerges (1992), emphasising that "shared meaning is not what is crucial for collective action, but rather it is the experience of the collective action that is shared". This is further evident within this study's findings: as decision-makers failed to 'invest in a role', they related to each other mechanically, they each reacted in an authoritarian and intolerant manner, as predicted by Kelly (1955) and Butler and Green (2007). Phase 2 (section 4.3.3) clearly demonstrates that, even when faced

with different views of the same information, decision-makers assumed that others did not understand the decision in the way that they should. The decision-makers themselves commented upon how the other groups had defined the same decision differently. Even when faced with alternative views and the opportunity to incorporate the views of others, none of the four groups did so.

Phase 2 demonstrates the need to understand the dominant influences of personal experiences, something that is overlooked in practice. Importantly, whilst consensus was not reached at this stage, the groups did start to negotiate and cooperate with others through the elicitation of the Group RepGrid as they were able to assemble a view whereby individual decision-makers working together were able to engage within a further discussion of what the decision meant to them. This provided an ability for the decision-makers to visualise the multiple perspectives of the organisational decision, both social and individual.

To conclude this theme, it is important to highlight an interesting tendency within organisational science research, a trend that seeks to aggregate individual constructs into group-level constructs. Whilst the aggregation of repertory grids through multi-grid analysis is likely to highlight commonality through revealing commonalities and differences among individuals according to their perceptions and preferences, it fails to consider individual conclusions within the analysis. Prior discussions within section 5.3.1 indicate that each decision-maker has drawn different conclusions. Even those who support growth do so for different reasons and in different directions.

### 5.3.3   Sociality not commonality is the key to understanding

It was evident that decision-makers were still rooted within their personal decision recipes in Phase 2. However, in Phase 3, the researcher depersonalised the organisational decision landscape, providing the ability for the decision-maker to view each perspective in turn, and as a whole, ensuring that all recipes were visible. This provided a degree of objectivity. Phase 3 permitted the exploration of meaning within the multiple views, gaining insight into why alternative viewpoints exist and how such alternatives influence the organisation's decision.

Emphasis was placed upon the decision-makers' personal constructs and their bipolar nature. The group's discussion focused upon why alternative viewpoints existed as they focused on each decision recipe in turn, trying it on for size, anticipating its consequences.

Alternative pathways within the decision landscape emerged, as decision-maker deepened their understanding of others as they were able to 'get inside' each other's heads, seeing where each was coming from and knowing what was meant. The findings suggested that understanding was emergent and incremental in nature. As decision-makers started to set aside their personal goals and invested in a role to see the decision landscape from the viewpoint of another, they began to more fully understand where the other person was coming from – even though such understanding may at times have been negligible, fragmentary, or in conflict with their own sense of the decision.

Phase 3 operationalised Kelly's (1955) Sociality Corollary, as decision-makers were able to view the decision recipes (private and social), gaining an understanding of meanings and unspoken assumptions that were used to understand and predict the organisational decision. Yet, Phase 3 interestingly demonstrated an additional dynamic. As the decision-makers viewed the decision landscape, they were able to further understand the ways they sensed the decision, their experiences and their own predictions against others'. This helped decision-makers clarify their own views, further uncovering the meaning behind what they were saying, as they debated opposites and conflicts. As this occurred, decision-makers started to take into account the contextual, private and social circumstances of others as they were able to 'play a constructive role'. It was only when the decision-makers invested time to 'be' someone else, understand others, 'get inside their head', 'see where they were coming from', and 'know what they meant' decision-maker that they were able to understand why they were making the choices they were (Kelly, 1955). It was only when decision-makers set aside their personal goals and a portion of their own views, made possible through the Kelly's (1955) Fragmentation Corollary, that a greater understanding of others was gained by the group.

What was needed, although often missing within formal decision-making, was the need to focus upon the individual decision-makers, their relationships and interactions with one another. This study recognised a need to address the adversarial positions and possible choices and experiences rooted within them rather than positions of agreement and consensus (Fransella, et al., 2005). The findings demonstrate that decision-makers need to construct a theory about what the other is doing, rather than simply interacting with others and the decision. There is a need to go beyond 'seeing' the perspectives of others. There is the need to step into the shoes of others to appreciate questions and options in such a way that decision-makers are continually prompted to explore, to pay attention, to find out, and to understand what is meant. As such, decision-makers are kept awake, alert to their

habitual ways of sensing organisational decisions. The findings demonstrate that decision-makers do not need to approve of or agree with alternative views; there is simply a need to understand alternative constructions in order to deepen understanding.

### 5.3.4 Operational vs strategic management

The visualisation of the organisational decision landscape emerged from the intertwined stories of the individual and social decision recipes. Weick (1995) uses the term enactment of sensible environments to observe the fact that, in organisational life, decision-makers produce part of the environment they face and such environments constrain their actions. The organisational decision has been in part socially constructed. A focus upon what had been enacted provided an additional layer of exploration that demonstrated the significance of systemic thinking to the organisational decision-makers. In doing so, decision-makers identified 14 initial themes. As they discussed the themes in relation to the whole, several dilemmas, tensions and zones emerged.

The findings infer that two opposing perspectives defined as zones within the organisational landscape emerged from the decision-makers' personal constructs. Strategic perspectives (Zone 2) were associated with success in the future, outward facing, seeking growth through research and development, but ultimately organisational change. These were opposite to the operational perspectives (Zone 1), which focused upon performance, efficiency, and enhancing the current activities of the organisation, and which had an internal perspective. There was agreement that both were equally important for different reasons and that both were essential dynamics to the success of the organisation, yet decision-makers were unable to agree a way forward.

Interestingly, the orientations of the decision-makers changed as they started to clarify views and meaning, engaging within one another in discussing potential conflict areas, tensions, dilemmas and expectations. A topic of direction, policy and identity emerged and was labelled as the fourth zone, named normative management. Zone 4 permitted all decision-makers to hold their unique decision recipes, driven through their personal experiences and goals, whilst also acting as a social group permitting action through the exploration of different orientations.

The decision-makers organised the personal constructs to balance their multiple perspectives decision-maker. This was beneficial as decision-makers indirectly considered the organisational decision as a recursive system. Each decision recipe (a system) is

construed within the decision-maker (a system), construed within a social group (a system) and ultimately the construed decision (a system). It was through the consideration of the whole and its interactions that change became effective as the psychological processes underlying the phenomenon became visible.

### 5.3.5 The emergence of a viable decision

Section 5.3.4 described how, from the empirical study, decision-makers mapped the organisational decision landscape, the characteristics of which are aligned with Stafford Beers' Viable System Model (VSM). To conclude the three-phased data collection and analysis, the researcher used the VSM to further frame the personal constructs contained within the organisational decision landscape. This provided a structure for the decision itself and a way to summarise the outcomes of interviews within a report for the organisation, a further communication tool which decision-makers could use to further reflect upon the organisational decision and finalise their organisational strategic plans.

Traditionally, the VSM is used as a robust model for designing viable organisations (Lowe et al., 2016; Schwaninger & Scheef, 2016); in other words, as a means structure in an organisation. This study however demonstrates its usability and applicability to the study of an organisational decision, a system comprising individual decision-makers embedded within social groups. Interestingly, the VSM provided a way to frame the inner priorities of the organisational decision. Due to the strategic nature of the organisational decision and those involved in sensing it, this study focused upon the meta system, as illustrated within Figure 24.

The prior discussion (section 5.3.4) illustrates how System 5 (Zone 4) was triggered into existence by the decision-makers as they debated tensions between System 4 (Zone 2) and System 3 (Zone 1). There was a belief that System 5 functions lacked clarity as there was a lack of understanding between the decision-makers on the purpose of organisational growth (decision topic), but further they discussed the importance of gaining a clear and agreed organisational identity. Although there was disagreement about what this identity should be, there was agreement that, once this was agreed, direction would be found within the organisational decision landscape and tensions and dilemmas would be resolved.

The findings demonstrate how the functionality of the VSM has balanced the multiple and diverse perspectives of the decision-makers, whilst promoting individual freedom and personal choices and anticipation with coordination and adaptability. The findings infer

that, contrary to traditional arguments, the 'problem' of divergent personal goals is not always resolved through consensus, as decisions are often made in the belief that everyone is 'on the same page'; in other words, that the decision is sensed by everyone in the same way. This study, however, has indicated that, through a journey of distinctions, coordination can be reached, as decision-makers step into the shoes of others. Coordination is gained without jeopardising the decision-makers, their roles, relationships, and unique sense of the decision. It is a deeper understanding of meaning and differences with the decision landscapes that specifically brings about internal validity and the coherence of differing points of view. The end result of the empirical study was a shift in the orientations of the decision-makers as the terrain of the organisational decision landscape changed, unleashed by the hidden world of meaning and distinctions. The empirical study demonstrates the impact of regarding an organisational decision as being composed of interrelated and interacting sub-systems, levels and parts and, as a consequence, endorsing a focus upon the whole system and its parts. This is evidenced through the decision-makers' reflections within section 4.3.4.4.

Additionally, using the VSM to frame the personal constructs of the decision-makers provided: 1) a structure of how decision-makers formulated choices and resolved conflicts within their organisational decision landscape; 2) showed how each choice influenced another, as dilemmas within the terrain were defined; 3) identified what was central to the organisational decision but, more importantly, what was core and why; 4) what enablers could be mobilised; 5) what barriers existed that could impede progress; 6) what opportunities existed now or may appear on the horizon to facilitate progress; 7) what threats could create further obstacles or barriers; 8) what roles the decision-makers had upon influencing the decision landscapes; 9) the roles of the others and their influences; and, finally, 10) a look inside, drawing further attention to the sensemaking questions of what, how and why, providing the possibility of change as decision-makers were provided with a further opportunity for change.

### 5.3.6    Change and resistance

Neither the organisational decision nor the decision-makers were static. Weick (1995:33) clarifies how such a concept should be interpreted through the work of Follett (1924:60): "there is no result of a process but only a moment in process". This highlights a contradiction to traditional conceptions of a 'decision' as a result of a process (Eisenhardt & Zbaracki, 1992). In line with Follett (1924), this study has not focused upon the 'result',

but rather on 'relating'. The sensing of the organisational decision is consistent with being part of a continuing and evolving process, as the individuals themselves are a "form of motion" (Bannister & Fransella, 1971:28). This highlights a further sensemaking characteristic of Organisational Sensemaking that is 'ongoing' (Weick, 1995).

Change was most obvious within the final phase of the empirical study. It was their reflection on the mirror that permitted decision-makers to see what they said, which allowed them to see how their views were based upon their experiences, the ways they sense a decision and why they make the decision that they did. Essentially, the findings suggest that decisions can be viewed as being constructed and reconstructed by individuals who are actively engaged in playing a role, and are embedded within a wider social process.

Phase 3 demonstrated that, through active and engaged interactions, the organisational landscape changed, evolving as personal theories and alternative views were put to the test. As the decision-makers' choices changed (a debate between operational and strategic factors), the organisational decision terrain also changed as decision-makers within a social setting made incremental modifications to their orientations. The decision-makers' views changed, redirected their focus and setting in motion a shift in thinking, revealing questions, themes, tensions and alternative decisions as the decision recipes were opened and explored. The end result of the empirical study was a shift in the orientations of the decision-makers as the terrain of the organisational decision landscape changed, unleashed by the hidden world of meaning. The decision was no longer about how to achieve growth, it became a decision about direction, identity and policy of the organisation. The findings suggest the importance of regarding an organisational decision as being composed of interrelated and interacting sub-systems, levels and parts, as changes in one sub-system (decision-maker) will impact upon others. As a consequence, this study argues and provides evidences that it is more effective to pay equal attention to the whole system and its parts.

Despite the potential for change, freedom and growth not every decision-maker changed. Some decision-makers did not adapt or adjust to new experiences; they were unable to metaphorically stand in the shoes of other decision-makers: these decision-makers did not view the organisational decision landscape from the decision recipes of others and were not able to understand the meaning, drivers and orientations of others. Decision-maker J, for example, maintained their original views. Their decision recipe contained the fewest bipolar constructs, with many constructs being repetitive or similar in nature. Their

decision recipe could be said to be an impermeable system. Decision-maker A saw the need to seek opportunities, and focus on innovation and entrepreneurial thinking, yet their constructs related to control, capacity and effectiveness. They appeared indecisive in their views of the organisational decision. The findings once more draw attention to the role of the individual, not the environment itself. However, as Kelly (1932:188) predicted: "some individuals are not very healthy in terms of this commodity". He goes on to comment that "co-operativeness and tolerance are important virtues" and not all decision-makers have them. Weick (1995) and Kelly (1955) make the assumption that an individual has to construe their own changes, as "the new outlook which a person gains from experience is itself an event; and, being an event in his life, it needs to be construed by him to make sense out of it" (Kelly, 1955:55). As Weick (2011:109) states, "the only person you can change is yourself". Such views are evidenced within the empirical study. Some decision-makers felt hemmed in by their circumstances and were continually frustrated by the resistance of others to understand the decision. However, the empirical findings demonstrated that it was only through reflective practices and interaction that decision-makers demonstrated their ability to step out of their habitual choices and change their circumstances as they moved through the terrain of the organisational decision landscape, reconsidering their choices and orientations, ultimately shifting their organisational decision.

### 5.3.7   Super-pattern and sub-patterns

The visualisation of the decision recipes and the organisational decision landscape set in motion an uncomfortable moment when decision-makers saw their own contribution to a troublesome super-pattern. The super-pattern was intuitively felt by decision-makers within their initial comments within the individual RepGrid interviews but was not visible to them decision-maker. Such patterns remained hidden by the concept of the 'organisational decision'. As Mintzberg and Waters (1990:5) state: "decisions, like so many other concepts in organisational theory, can sometimes turn out to be artificial construct… 'decision' sometimes get in the way of understanding". The findings offered a simple yet powerful illustration of how sub-patterns (individual) and super-patterns (social) are shaped when making an organisational decision. The findings help understand the perspectives of Kelly (1932) and Fransella (2003), who discuss the 'group mind' as nothing more than the personal constructs of the individual.

## 5.4    CHAPTER SUMMARY

The findings have revealed the ways that individuals, drawing upon their personal experiences and anticipations, give attention to their own 'unique ways' of construing and anticipating when creating their organisational decision.

Decision-makers have embarked upon a journey, a process of sensing a decision employing their own personal lens to anticipate reality (The Individuality Corollary). They begin to act (enactment) and generate tangible outcomes (cues) as they search for repeated themes which build upon the past experience (The Experience Corollary) that a person's construction system develops as different events occur (The Construction Corollary). This has drawn attention to the way an individual anticipates events by construing their replications (Construction Corollary) as they choose between alternatives (Choice Corollary), driven by what needs to be explained (plausibility), but unaware of their capacity to change and the permeability of parts of their constructions (The Modulation Corollary) as well as what should be done next (identity enhancement). Decision-makers have created their preferences, choices and rules (retrospect) as tools to create an impression of order amid chaos and confusion which is occurring (ongoing). Rules and identities are negotiated within their social context (social). This is the process of sensing a decision, which often goes unnoticed and unreflected as without a map such a journey would be untraceable.

Recipes are a lot like maps. They animate and orient decision-makers. They provide the content and structure, the patterns of the ways sensemakers sense the organisational decision. Recipes contain patterns of understanding and expectations, hints of a person's or group's theories and identities. They have a range of convenience (The Range Corollary) and define similarities and distinctions between events (The Dichotomy Corollary) that are organised in a hierarchical fashion (The Organisational Corollary). Recipes may not at times be entirely logical and at other times there may be inconsistencies (The Fragmentation Corollary). It is in these patterns that insights into the meaning and functionality of the organisational decision can be found. Insight is gained into how decision-makers shape the decision itself, drawn from prior and current social systems. As an organisational decision is solitary (Weick, 1995), it is through the collective action that decision-makers create and test meaning (Czarniawska-Joerges, 1992). As decision-makers enact they determine the unique and private constructs that make that person tick (Individuality Corollary) whilst also exploring the extent to which constructs are shared by other individuals (Commonality Corollary) and, much more importantly, the extent to

which a group of individuals can negotiate understanding as they each try the other's constructs on for size (Sociality Corollary) through the development of role relationships (Kelly, 1955, 1970; Jankowicz, 2001; Adams-Webber, 2003).

Though such considerations a unique perspective of how organisational decisions are created and recreated was gained, exposing the hidden layers of meaning within the private and social layers of the organisational decision. It is proposed that this analysis brings into focus a path to understand how organisational decisions are made, gaining an in-depth perspective of the decision from the decision-makers' themselves. The empirical research has demonstrated that what organisations face is often of their own creation as the decision-makers' perception and construing is what defines the decision, a perspective that is often overlooked in literature (Weick, 1979; Nystedt & Magnusson, 1982; Meyer, 1990; Hickson 1995; Blumer, 1969; Mead, 1962; Laroche, 1995).

# Part D

# Implications and Outlooks

# CHAPTER 6 CONCLUSIONS

*"How do organisations become hemmed in by circumstances? How does each person contribute to the effects 'violently felt by all' in our organisation? In what way do we as individuals contribute to organisations becoming victims of their biographies? How can we find compelling, persuasive, and vivid ways of sketching, describing, caricaturing, and representing a super-pattern, such that others can see it as well? In particular, how can we show that it has a repeating or replicating quality to it? How can each individual steel themselves for the uncomfortable moment of seeing their own contribution to a troublesome super-pattern?" Robertson (2003:205)*

## 6.1 CHAPTER INTRODUCTION

The purpose of this chapter is to revisit the research questions and the theoretical themes presented in Chapters 1 and 2 in light of the empirical evidence and discussions presented in Chapters 4 and 5. This chapter also illustrates how the innovative methodology has provided new understandings of the *'ways'* organisational decisions are created, further permitting organisational decision-makers the ability to understand *'why'* they make the decisions that they do. The chapter summarises the originality of this work and its contributions. To conclude, this chapter presents the limitations and implications of this study.

## 6.2 RESEARCH QUESTIONS REVISITED

The aim of this study was to describe the ways that key decision-makers within an organisation create their decision recipes for the purpose of understanding why organisations make the decisions that they do. Taking a 'pragmatic constructivism' perspective, three research questions were explored.

**Question 1    How do individuals within a social context create and structure organisational decision landscapes?**

The findings permitted decision-makers and observers to explicitly 'see' how their current choices and decisions were based upon prior experiences and, importantly, which of their experiences they brought into the decision and why. But, more practically, decision-makers were able to visualise how they each created and structured the organisational decision,

becoming aware of their habitual ways of making a decision.  This provided insight into the multiple perspectives of the organisational decision, further exposing what was concealed within their individual and social choices and why unique perspectives existed.  Yet, the evidence suggested that, even when decision-makers are aware of their choices and limitations, they continue to create the decision through their personal experiences.  The findings illustrated that it was only when decision-makers played a role, investing time in understanding the decision, themselves, and others that they were able to expose alternative choices and orientations.

## Question 2     How can the private and relational patterns of organisational decision landscapes be mapped?

This study demonstrated The FORMED Decision Methodology, provided the ability to operationalise the construing process of a decision and understand the decision itself.  But consideration was also given to the incremental unspoken choices of decision-makers, both privately and socially.

The FORMED Decision Methodology provided a 'vehicle' through which the organisational decision landscape was elicited and explored, building on the works of Kelly (1955, 1970), Weick (1995) and Jankowicz (2004).  This approach focused upon the decision-makers' orientations and differences rather than their goals and similarities, permitting an exploration of the terrain of the organisational decision landscape as created through the personal and social journeys of the organisational decision-makers.

The study raises the possibility of gaining in-depth descriptions of the ways that organisational decisions are created through a personal construct approach, in order to 'get inside' the decision-makers' heads, gaining a understanding of how they sense the decision from their own perspectives, words and meaning.

## Question 3     What impact does a deeper understanding of the decision landscapes have upon the decision itself?

In both the exploratory and descriptive case studies, decision-makers discarded their original decision and their initial choices, and instead enacted their alternatives and the views of others as they stepped into their shoes.  The decision landscape changed and the decision-makers' personal and social recipes transformed.  Specifically, decision-makers were able to gain a sense of how they made the decision, to identify what was core to

reflect upon, their incremental choices and their resulting conclusions, in order to discover how they imposed restrictions upon themselves whilst simultaneously defining possible alternatives and new directions. They were collectively able to view the heterogeneous representations of the organisational decision and the meaning and expectations that defined such representations. The impact of this was that decision-maker they embraced a creative and respectful exploration of alternative views, gaining a better understanding of other people and their decisions; they were able to relate to and comprehend what makes another person tick. The findings support Nutt (2010) in that, whilst executing a decision is important, it is equally important to uncover and explore claims and the concerns that prompt them, as decision-makers 'get to the bottom of things'. If the organisational decision-makers had not done this then the organisational decision would have failed, with little or no benefits being realised.

## 6.3    ORIGINALITY AND CONTRIBUTIONS

Prominent organisational and decision theories claim that decision-makers are only partly rational, as they are also partly emotional and irrational in their actions. Decision-makers have a bounded rationality (Simon, 1947). The concept of bounded rationality reflects how managers make decisions in organisations and takes into account that decision-making takes place within an environment of incomplete information, uncertainty, emotion and cognitive ability. In order to better understand how managers make decisions, a sensemaking approach is adopted for the purpose of gaining an in-depth understanding of what prompts and influences decision-makers as they organise, interpret, rationalise and make their decisions within an organisation. This requires the ability to:

1. Get inside the decision-makers' heads, understand the organisational decision from their perspectives and, additionally, understand what influenced their perspectives.
2. Explore what contributes to the ways that decision-makers make sense of the organisational decision.
3. Understand decision-making within a social embedded circumstance, as decisions within organisations are never made in isolation.

Although a sensemaking perspective is embraced within this study, as a critical lens through which organisational decision-making can be explored, it alone does not provide a way of gaining a picture, or creating a map of the ways that organisational decisions are created through social interactions. Therefore, this study proposes an alternative theoretical

perspective that synthesises two rigorous and well-established theories of Organisational Sensemaking (Weick, 1995) and Personal Construct Theory (Kelly, 1955).  This perspective is referred to as 'Personal Construct Sensemaking' (PCS) and provides an amalgamation of core and shared assumptions between the two theories.  This provides an original contribution to the rich body of decision-making literature as it offers a practical in-depth approach.

Additional contributions to theory have emerged from this study, as follows:

- It has conceived how organisational decisions are rooted within the experiences, identities and personal drivers of the decision-makers.  But, more importantly, this study has mapped influence and change.
- It has theorised how individual decisions influence the complex interactions of social decision-making.
- It has demonstrated how viable system modelling principles emerge from decision-making activities, validating the power and usefulness of the Viable System Model within an alternative application and context.
- It has enhanced sensemaking theory as the process of sensing a decision, the content and structure of the decision itself, and its conclusions, which are considered from the multiple internal world of the decision-makers themselves.

### 6.3.1   Contributions to methodology

This study provides an innovative methodology with practical utility that permits the mapping of the complex and multiple dynamic nature of an organisational decision in the words of the decision-makers themselves.  Ultimately, this methodology provides the ability to:

- **F**rame the enacted organisational decision landscape in order to gain a chart and see what has been individually and socially created.
- **O**pen a window of opportunity (see) as future actions are articulated and deliberated and build upon moments of the past as well as focusing on the future.
- **R**eflect upon what had been created, as managers individually and socially construct their decision.
- **M**ap taken-for-granted alternatives, choices and preferences.

- **E**xplore opportunities and restrictions within personal constructs as decision-makers are not hemmed in by their circumstances.

- **D**ecisions are viewed as a social system with the possibility of change and reconstruction.

This study develops a methodology that extends the Repertory Grid technique (Kelly, 1955; Jankowicz, 2004) from a 10-step individual interview process by building upon such principles to incorporate social RepGrid interviews, alternative analysis and modelling. This permits the extraction and exploration of a decision landscape that captures individuals' and groups' decision recipes and hidden meanings whilst also considering their interactions.  Importantly, this methodology provides a reflexive and transparent way to examine the ways that managers construct and co-create plausible descriptions of their decision landscapes within their private and social worlds, moving beyond the what's and how's of organisational decision-making.

### 6.3.2   Contributions to practice

Organisational decision-makers were empowered to discover their individual and social construing of the organisational decision, its implications and its possibility of change. Ultimately, the organisational decision-makers were able to:

1) Map the terrain of their organisational decision at multiple levels, explicitly demonstrating the importance and difficulties of balancing operational and strategic management perspectives.  Further, it provided the ability to show their positions towards the organisational decision and the interrelations of each decision-maker within the landscape, thus facilitating a discussion of the topics of direction, policies and identity as well as resolving tensions and differences between decision-makers.

2) Explore their journeys decision-maker, which provided the ability to map the influence of the individual upon their group and the ability to identify personal and organisational drivers, enablers, barriers and experiences, as well as habitual nature.

3)  Visualise the sense of the decision, which provided the ability for reflection.  But, importantly, it demonstrated to decision-makers that it was only through reflection and an active role in understanding others that individuals, their constructs and the decision itself changed.

## 6.4    LIMITATIONS

Within the stated research paradigm, this research is subject to limitations.

Although the size of the case study may be interpreted as small, and thus perceived as a weakness, it is felt that this is also its strength. Firstly, a purposeful sample is adequate as access to all decision-makers who are involved in making the organisational decision was gained. Secondly, the adoption of a single embedded case study permitted an in-depth analysis of multiple levels and interactions between the levels to be explored and analysed.

The initial fears associated with the practical engagement of decision-makers during the RepGrid interviews proved ill-founded. It is often argued in literature that senior managers have a limited amount of time to spare on responding to research; they may lose patience with the process, and become bored or potentially disconnected through information overload or the repetitive nature of the techniques (Brown, 1992; Finch et al., 2003; Easterby-Smith et al., 2015). Literature also comments upon the drawbacks of the RepGrid interview itself, as such interviews can be time-consuming, taking a considerable period of time to complete, up to 90 minutes in some cases. This researcher addressed such issues through adequate testing within the pilot study and the initial descriptive study, ensuring that the RepGrid interviews were stimulating, beneficial and productive for both the researcher and the decision-makers. It is argued that all decision-makers were engaged fully with the process, demonstrating a curiosity for an alternative way to explore their organisational decision. The findings provide evidence that the RepGrid methodology presented in this study is an effective structured technique for use in practice, remaining true to Kelly's (1955) theoretical assumptions and methodological underpinnings.

The adopted methodology enhanced the traditional RepGrid data collection and analysis procedures for future use within managerial and organisational research. Focus was given to the RepGrid as a product, a recording device within an interview, the process of constructing and learning together with the mapping and analysis of the interview. The enhancements allowed decision-makers who were not familiar with the RepGrid procedure or its underlying theory (PCT) to fully engage with the process of construing the organisational decision. The work books and visual aids were designed to provide a structured approach to each of the individual RepGrid interviews as decision-maker

s were able to largely work independently, with the researcher acting as a facilitator. However, several limitations are noted. Firstly, the approach is only as useful as the person

using it. Its success depends upon the ability of the decision-makers as well as the facilitator. Secondly, the approach only provides a snapshot of a moment of a decision. Finally, there is the potential that the use of software packages and techniques will overshadow the meaningfulness and depth of the results. As Bannister (1985:xii) suggests, the grid has become "a Frankenstein's monster rushed away on a statistical and experimental rampage of its own, leaving construct theory neglected, stranded high and dry, far behind". Both Cassell and Walsh (2004) and Easterby-Smith et al. (2015) further support such concerns, commenting that a focus upon statistical similarity between, or on, construct groupings through Principal Component Analysis can move the findings away from understanding how the individual makes sense of the world. Care should be taken to ensure that interpretation remains close to the individual's and group's meanings, otherwise its usefulness in practice may become lost.

Given the short period of time available within the organisation and the need to address the initial outcomes for the organisation, a number of limitations have arisen. Firstly, an additional data collection phase would have been beneficial to this research. The additional phase could have been used to complete additional individual RepGrid interviews in order to directly measure changes within personal decision recipes. Changes were implied within the researcher's observations and decision-makers' reflections; however, the findings were explicitly unable to measure them. Secondly, the researcher could have provided a formal assessment questionnaire that asked the decision-makers to evaluate the usefulness of the methodology, rather than doing this via the informal questions used within the interviews.

Thirdly, Phase 3 of the data collection process saw the emergence of the Viable System Model (Beer, 1979). Decision-makers who were not aware of the VSM did not discriminate between S3 (control), S3* (audit) and S2 (coordination). As the model began to emerge, the researcher did not attempt to detangle the emerging perspectives, which ensured that the discussions between the decision-makers remained natural and free from research bias. This meant that the decision landscape remained focused upon the four functions of the VSM with associated functions embedded within them: System 5, System 4, System 3 (S3, S3* and S2) and System 1. Whilst it is argued that the framing of the organisational decision using personal constructs has retained adequate theoretical grounding and has not risked damaging the creditability of it application or discarding its underlying principles, it is a limitation.

## 6.5    IMPLICATIONS OF THE RESEARCH

Chapters 4 and 5 have described the ways that managers sensed an organisational decision. A range of themes have emerged and collectively they have a number of implications for theory and practice. This section offers a few thoughts that suggest that current organisational decision theory and research can be supplemented through an alternative view.

Firstly, the visualisation of the intertwined individual and group decision recipes permitted a description of the organisational decision landscape from the personal constructs of the decision-makers. The implication of this was that decision-makers were able to view and expose how they each make sense of the decision, evidencing the concept of bounded rationality. Decision-makers were able to gain a deeper understanding of the ways they each viewed the decision and the ways that their personal experiences, drivers and interactions influenced the organisational decision rather than the strategies and drivers of the organisation. Thus, the findings demonstrate the need for researchers and practitioners to understand the influence of self-servicing sensing of what the decision means to decision-makers, thereby promoting an exploration of the inner world of the decision-makers.

Additionally, an understanding of the decision-makers' inner worlds needs to be supported with an understanding of the ways interactions and relationships influence organisational decision-making. An implication of this study therefore suggests that, through a focus on the functioning of the individual and group, understanding can be gained of why and how consensus is achieved within organisational decision-making. This study has evidenced how decision-makers reproduce personal constructs within a social content and that the personal constructs most shared by the group become a consensus point within discussion. Interestingly, alternative viewpoints were actively suppressed. It is therefore argued that in, order to gain a fuller understanding an organisational decision, the decision-makers should focus not on consensus but upon their differences.

The mapping of the individual and social sensing of an organisational decision highlighted the benefits of supplementing traditional 'thinking first' models of decision-making with a 'doing first' and 'seeing first' approach. The FORMED firstly extracted the prior experiences of the decision-makers as represented in order to map how decision-makers sense the organisational decision. This approach is about decision-makers being involved in experimentation, trying things, finding out what works, making sense of their actions

and repeating the successful behaviours of actions, while discarding the rest. This illuminated the core principles of Organisational Sensemaking and Personal Construct Theory, 'a doing first approach', through enactment. Additional, the FORMED methodology included a 'seeing' approach which mapped the private and relational patterns of the organisational landscape, enabling the decision-makers to see what they had created, embracing individually, commonality and sociality through Weick's (1995) sensemaking questions. As decision-makers saw their recipes and organisational decision, attention was given a mirror and an opportunity for reflection, providing decision-makers with the ability to look inwards at themselves and then outwards at what had been created, privately and socially, and then back in again to their self and group.

The implication of findings is that decision-makers need to enact the theory of others; they need to see their theories and meaning in order for understanding to be reached. Simply, revealing multiple perspective, sharing, and discussing such views did not change the organisational decision for the decision-makers. This implies that enactment does play a central role in change and that change is incremental and must take place within people's decision recipes. The decision-makers must experiences and enact new possibilities.

From the organisational decision landscaping, Stafford Beer's (1979) Viable System Model emerged. An implication of this is the possibility that the Viable System Model is not a theoretical framework of how a system should operate. The findings demonstrate that systems do operate in this manner, further demonstrating the real and important role of homeostasis to balance operational and strategic management tensions via policies and identity.

To summarise, the findings invite further research that considers organisational decision-making in a new way; more particularly, to explore the ways that decision-makers interact, as they are not required to see a decision in a similar manner, but to understand and accept how other decision-makers see the decision differently from them (Kelly, 1955). This leads to a need to step into the shoes of the decision-makers, understanding their experiences and their anticipations and choices, as well as the sense they place upon the decision. The inner psychological space of the decision is just as important as the space out there. Both spaces create and recreate the decision. They are equally important.

# CHAPTER 7 OUTLOOK AND FUTURE RESEARCH

*This chapter brings this research study to a close, providing "a proposal to explore the implications of a new viewpoint, even to the extent of experimenting with it actively. Now, let me see if I can shake the kaleidoscope for you. Watch closely. See what happens." (Kelly, 1966, cited in Fransella, 2005:77)*

## 7.1 CHAPTER INTRODUCTION

Throughout the course of this doctoral thesis, much has been learnt about the ways organisational decisions are made in practice. Additionally, the researcher has gained a greater understanding of the need to make a thorough review of the literature, in order to not only evaluate related prior studies but also to develop the thesis position and shape the research questions. The detailed research design ensured that there was a plan of study that defined the philosophical underpinnings of this research. Importantly, the research design also permitted the researcher to examine her options and justify her decisions and approaches, in light of the research questions. Further learning was experienced during the design and administration of the FORMED Decision Methodology. The decision-makers themselves also learnt and shared their invaluable thoughts and evaluations. The empirical study bought to life the issues and questions raised within the literature review and addressed the research questions of the study, as well as providing practical benefits and outcomes to the organisation and the decision-makers involved.

The researcher is alert to the fact that this study cannot be generalised to wider organisations and decision-makers due to its sample strategy and its descriptive nature. However, it is believed that the alternative questions and approaches presented by this study will have an impact upon future research; suggestions are made within the following section.

## 7.2    FUTURE RESEARCH

The limitations of this study have been summarised within section 6.4 and are addressed within through recommendations for future research, each presented in turn.

- **Building on the current research**

First and foremost, in order to overcome the limitations associated with the nature of the sampling strategy, future research is encouraged that replicates this study, either within other organisations or in the context of multiple decisions within the organisation used in this study.

Second, it is proposed that an additional data collection phase would provide additional and useful findings that could be used to compare the ways that each of the decision-maker's personal decision recipes change as a result of their group's discussion.  Thus, it may be beneficial for future research to repeat Phase 1 (section 4.3.2) of the research methodology (individual decision recipes) at the end of each group session in order to directly compare areas of change or stagnation.  This could have potential benefits within the areas of stakeholder management, organisational change initiatives, influencing people and culture changes within organisations.

Thirdly, the use of longitudinal studies would enable organisational decisions to be mapped, something which has not been extensively studied in practice.  Such an approach would be beneficial to both theory and practice.  Although longitudinal organisational decision studies do exist, they fail to explore and map subtle changes of the decision-makers and the decision itself.  Additionally, there tends to be a focus upon decision outcomes rather than a sensemaking perspective of decision-making within the organisation as a series of moments.  In practice, a new perspective should embed a shift from what a decision actually is and how it is influenced towards the ways decisions are created in practice.

- **Building on the current expected and unexpected research findings**

Phase 2 of the research (section 4.3.3) resulted in an unanticipated finding in that, even when groups shared and explored the perspectives of others, they were unable to understanding the alternative views of other decision-makers.  The decision-makers' interactions were naturally restricted to a discussion of their shared views, whilst they dismissed alternative views and generalised that others simply did not understand the

decision itself. Whilst such a phenomenon is not new within sensemaking theories and Personal Construct Theory, there is limited exploration within decision-making theory. Thus, a potential new avenue is opened up for future research. It is proposed that there needs to be a shift from exploring similar views and a focus upon consensus towards a perspective that opens up the decision landscape through an exploration of difference and meaning, a look under the hood at the assumptions often taken for granted.

A second unexpected finding was the emergence of Beer's (1972) Viable System Model within the organisational decision landscape. The research findings demonstrated that the VSM can be used to effectively frame and coordinate decision-makers' multiple perspectives and conversations, ultimately enabling the decision-makers to explore the initial organisational decision in order to identify deficiency, tension and interrelated issues. Thus, future research needs to explore the usefulness of the VSM within the context of the FORMED Decision Methodology. Additionally, future research needs to provide empirical evidence that the VSM is an effective way to model not just organisations but decisions made within them, and it is proposed that future research could use guiding questions to assist decision-makers distinguish between the VSM systems.

- **Examining the conceptual framework within a wider context**

Future research is required that examines the conceptual framework (section 1.7) within future empirical studies, within either permanent or temporary organisational decision-making settings. In particular, it is proposed that the conceptual model is suited to all types of organisational decisions. However, organisations are more likely to invest greater time in exploring strategic and high-risk group decisions, as decision-makers are often more willing to invest time on these types of decisions due to their potential impact on the organisation. Future research within wider contexts will demonstrate the importance and benefits of adopting a personal construct sensemaking perspective towards organisational decisions. This will require a move from exploratory and descriptive research towards an explanatory perspective.

- **Expanding the conceptual framework to consider key areas within**

The discussion and conclusion chapters have set up a series of connected future research suggestions that may be possible if the conceptual model is expanded, in the following areas:

Firstly, further examination of the ways that sub-patterns and super-patterns of decision-making are connected and their impact within organisations. Whilst these were implied within the findings of a single decision, they were not the primary focus. Additional research that seeks to explore multiple decisions within a single organisation may test the work of Kelly (1932) further, as this is an area overlooked by researchers when adopting a personal construct perspective. Related to Kelly's (1932) concept of the group mind is the work of Weick and Roberts (1993:357), who use the term collective mind to conceptualise "a pattern of heedful interrelations of actions in a social system. Actors in the system construct their actions (contributions), understanding that the system consists of connected actions by themselves and others (representation) and interrelate their actions within the system (subordination)". Thus, future research could relate the methodology and findings of this study to shed light on the concepts of 'group mind' and 'collective mind' as an emergent phenomenon, which is not known in entirety to any one decision-makers, although portions of it are known differently to all (Tsoukas & Chia, 2011). Future research should explore the ways that individuals' actions converge and produce an interlocking pattern of activity within organisations. In order to do so, there is a need to "trace organising, [through] a more robust methodological apparatus… an outside or reflexive analysis of the system is necessary" (McPhee, et al., 2006:319). Thus, future research should access the functioning of the group/collective mind and bring into focus the "continuous updating and deepening of increasingly plausible interpretations of what the context is, what problems define it, and what remedies it contains" (Weick & Sutcliffe, 2001:3).

Secondly, the findings demonstrated to decision-makers that they behaved in a habitual manner and the possibility that decision-maker their past experiences and choices are a powerful predictor of their future decisions. This view is supported within a large body of literature that considers that individuals have already decided how they will make a decision before they commit to a course of action. Yet, the replication of this study within alternative contexts may also offer additional insights into 'groupthink', a term coined by social psychologist Janis (1972). Group think is said to occurrence whereby a group comes to an agreed decision about a possible action despite the existence of fact that points to another correct course of action, with further implication upon how decision-makers use information and knowledge to support their decision. This study has potentially offered a way to map the ways group think occurs and the potential for how some of its symptoms can be overcome through the use of the FORMED Decision Methodology. There may

have been attempts to change the 'group mind' which have bypassed the most perplexing questions, such as "What actually is the super-pattern we are trying to change and how does each person take responsibility for their contribution to it?"

Thirdly, the conceptual framework together with the FORMED Decision Methodology could be used in future research to explore how interactions and relationships within organisations can be improved through greater understanding and commitment to action.

Finally, the conceptual framework could be expected to consider additional personal construct corollaries recently suggested within literature (section 2.5.6). Adding new personal construct corollaries may merge current research together and offer a currently unexplored perspective of the ways that organisational decisions are made in practice.

It is noted that it would be possible to include one or a number of these suggestions within future research projects.

- **Examining the FORMED methodology within alternative settings**

There is the potential of exploring the effectiveness of the FORMED decision methodology within a related context of problem-structuring methods (PSMs). PSMs have traditionally been used in support of empowered decision-makers in multi-organisational settings. Lowe et al. (2016) has recently commented there is increasing interest in how to support decision-making in which there exists conflicting goals, complex politics and power, multiple roles and uncertainty. Future research could be conducted that explores how the FORMED methodology provides effective problem structuring and creation of shared understanding, and provokes high levels of support and subsequent ownership of the commitments. The FORMED Decision Methodology could be evaluated using a decision-maker feedback questionnaire based on Midgley (2013), which assesses its purpose, context, research methods and outcomes.

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