Exploring the foundation of Dynamic Capabilities:
"How the role-related behaviours of top management teams affect
acquisition decisions"

by

Maha Mohammed Z. Al-Shaghroud, BA, MA

Submitted in accordance with the requirements for the degree of

Doctor of Philosophy

The University of Leeds
Leeds University Business School

July, 2013

Acknowledgements

Abstract

The increasing speed of change in the environment is traditionally associated with enduring effect on organisational performance and therefore, its competitive advantage. Negotiating the increasingly volatile environment is believed to be the main role for the upper echelons. Top Management Team (TMT) cognitive capabilities are mostly challenged within dynamic environment. Although TMT is central to strategic management and organisation studies since the last century, their conspicuous role, individually and collectively, in influencing the conduct of the firm through strategic decision making becomes more challenged in a time of economic hardship and provides a timely and interesting research topic. Hence, this study takes a reflexive social constructionist view on the role of TMT and adopts a contemporary approach to study their role at micro level. It embraces an internal perspective on the firm which encourages the use of Dynamic Capability lenses (DC) during sensing phase of acquisition decision making because of the resemblance of the two patterns. The rational for the selection of sensing pattern of potential acquisition opportunities is because it provides a transparent level of analysis for the TMT role. Dynamic Managerial Capabilities (DMC) reconciles the role of TMT within dynamic environment. Nevertheless, DMC has received a limited and fragmented theoretical treatment in strategic management based on evolutionary views of the firm focusing on routine and experiential learning or cognitive tradition, with little attention to understanding the role of social interaction of TMT during strategic decision making.

Findings of a purposive case study with four embedded acquisition cases reveal two sources of DMC which extend the micro foundation of DC. The first source reinforces the experiential learning patterns which includes the use of systemic approaches and codified knowledge to enable collective sensing of TMT. This extends DC literature by arguing that systemic approaches and routinized processes assist TMT when sensing

forward-looking acquisition opportunities. This is an important insight because most of the literature is focused on superior cognitive abilities of managers when it comes to investigating search for forward-looking opportunities. The second source which contributes to the DMC literature identifies three categories of TMT related patterns of social interaction namely independent role, organisational role and hybrid role as another enabler of DMC in TMT during sensing phase. This is another important insight which emphasise the role of social interaction and the socialisation of knowledge during the practice of sensing phase. The two sources of DMC contribute to stabilise TMT collective sensing phase that is inherently uncertain and therefore, cognitively challenging. Furthermore, the use of role theory resulted in further theoretical implications. Thus, the different social roles played by TMT reflected different modes of managerial agency. This insight extends our understanding of managerial agency during decision making to a more of social agency as a result of reflexive thinking and relational processes. The findings have wider implication for managerial practice during making sense of potential opportunities to ensure collective decision making through diverse team composition, increase team socialisation during decision making, and codification of repetitive knowledge.

Table of Contents

Figures

VIII

Tables

Chapter one: Introduction to the study

This chapter presents a brief overview of the purpose of this study and its context. It starts with a brief introduction to the research background concepts and foci which lead to highlight research problem that contribute to formulate a research question, aim and issues. The chapter then provides a justification for the thesis and expected contribution. Finally, a brief description of research process is provided to conclude with a thesis outline.

1.1 Introduction

Mainstream literature within strategic management theories and empirics is rich in conceptualising and investigating strategy at; corporate and business level respectively to identify sources of competitive advantage and achieve them for the firm (Johnson et al., 2011). To achieve and sustain a competitive advantage is key factor for firm's success and survivability within its business market by many scholars who adopt an internal perspective on firm analysis (Barney, 1991a, Teece et al., 1997). The aim of competitive advantage for the firm is to achieve and sustain economic value over its rivals by making the right strategic choice for example a strategy of merger or an acquisition (Barney and Hesterly, 2011). Hence, competitive advantage increases wealth of the firm (Teece et al., 1997).

Adopting an internal perspective on firm analysis identifies sources of competitive advantage focusing on activities (Porter, 1996) resources (Penrose, 1958); tangible or intangible (Barney, 1991a) and search for differentiation (Johnson et al., 2003). Financial and physical assets are classified among firm's tangible resources, whereas intangible resources range from managerial teamwork, managerial insights as individual or collective and emerging relationships, judgment, experience and intelligence (Barney and Hesterly, 2011) learning (Zollo and Winter, 2002, Zollo, 2009) stocks of knowledge and a mix of processes (Eisenhardt and Martin, 2000)

e.g. development of new product (DNP) (Zahra et al., 2006) which enable the firm to reuse and redeploy its resources in effective and efficient way (Teece et al., 1997). For a resource or a capability to underlay firm's competitive advantage must be valuable, rare, and hard to imitate or to be substituted (Barney, 1991b, Barney, 1991a). One of the reasons why it is hard to imitate a resource or a capability is when it involves an element of social complex. For example, interpersonal relations among managers in a firm which can improve firm's efficiency and effectiveness (Barney and Hesterly, 2011). Such concept is labelled "*social engineering*" (ibid) which is contingent by nature.

The ability to deploy and redeploy firm's resources to adapt to changing environment is considered a dynamic capability (DC) (Teece et al., 1997, Winter, 2003). DC is conceived as a new source of firm's competitive advantage (ibid). Most importantly, managers are argued to influence the development of firm's DC in many ways (Adner and Helfat, 2003) and manage it by which they alter, expand and reconfigure strategic assets of the firm (Eisenhardt and Martin, 2000, Teece et al., 1997, Moliterno and Wiersema, 2007). For example, managers beliefs about organisational evolution is argued to play a role in the development of DCs (Pablo et al., 2007, Rindova and Kotha, 2001) managers divestment decisions of strategically valuable resources is considered a firm –level resource divestment capability (Moliterno and Wiersema, 2007) likewise a merger or an acquisition (Eisenhardt and Martin, 2000). It is argued that processes and routines that govern the above examples and subsequently achieve competitive advantage are understood to be capabilities (Eisenhardt and Martin, 2000) and arguably dynamic capabilities (Teece, 2007) .

The link between DC and managers can be better understood from reviewing several definitions for dynamic capabilities in strategic management literature. A broad one

describes dynamic capabilities (DCs) as the ability of the firm to integrate, build and reconfigure internal and external competences to adapt to changing environment (Teece et al., 1997). This definition adds to our understanding of competitive advantage's two main aspects: dynamic and capability. Dynamic refers to the capacity to renew competences in order to achieve fit in a changing business environment. Dynamic in this case is a characteristic of both; dynamism of environment and managers interpretation of such change (Ambrosini and Bowman, 2009).

Managing resources and capabilities in a dynamic environment is more of an assigned role to a strategic management of the firm as described by Teece et al (1997: 515) "*the role of strategic management in appropriately adapting, integrating, and reconfiguring internal and external organisational skills, resources, and functional competences to match the requirements of a changing environment*" (Teece et al., 1997). It is also defined as processes (Eisenhardt and Martin, 2000) for example mergers and acquisitions, and learning that translate to the ability to achieve superior performance (Zollo and Winter, 2002).

DCs as a research area is claimed to be the only approach which focuses on how a firm can change the configuration of its valuable assets over time and sustain that change (Ambrosini and Bowman, 2009). Upper management represented by principal decision makers are claimed to have a conspicuous role in reconfiguring firms assets (Zahra et al., 2006).

Although the literature on DC concept is rich in explicating how it underlay firm's competitiveness, there is a gap in our understanding and therefore, conceptualisation of the conspicuous strategic management role of managers (Adner and Helfat, 2003, Castanias and Helfat, 1991) at TMT which is referred to as a dynamic managerial capability (Adner and Helfat, 2003). Thus, this leads to a lack of understanding of

the true nature of such concepts which form a micro-foundation area of DC and their interdependency in view of its underlying assumptions (Teece, 2012, Winter, 2012). This shortage facilitates the identification of research problem within the stream of above literature as will be further discussed next.

1.2 Research problem

The review of extant literature on micro-foundation of dynamic capability and relevant theories in chapter two highlights major debate between the literature on evolutionary nature of the firm based on learning and its associated notion of quasi-automatic routine (Nelson and Winter, 1982, Zollo and Winter, 2002) and the literature on cognitive tradition which focus on superior cognitive ability of managers when concerned with investigating search for forward-looking opportunities (Gavetti and Levinthal, 2000, Gavetti, 2005).

The abundance of literature acknowledges empirically the conspicuous role of manager in influencing the conduct of the firm particularly at the level of top management team via their ability to make strategic decisions (Hickson et al., 1986). Dynamic capability is also evidenced to underlay and sustain the competitive advantage of the firm by sensing potential opportunities (Teece, 2007) as a pre-acquisition phase of strategic decision making.

However, there is paucity in the literature exploring dynamic managerial capability of top management team during sensing. Hence, the main purpose of this present study is to acknowledge the debate within the micro-foundation literature of dynamic capabilities and to focus on exploring the missing link of social interaction of top management teams as a potential driver of their dynamic managerial capability.

Therefore, this study aims to explore what managers do and how they do what they do by adopting a qualitative purposive case study of four embedded acquisition episodes to

gain deeper insight on such role. The context of this study is set within the context of acquisition sensing phase because of the resemblance between the two patterns; acquisition and dynamic capabilities which is discussed in more details in chapter four. The research problem is going to be explored by answering the question in the following section.

1.3 Research question

How do patterns of social interactions support dynamic managerial capabilities of top management teams?

1.4 Aim and issues of research

The aim of this study is to develop a theory which conceptualise the role of top management team during sensing phase as a dynamic managerial capability. In order to do that, the following issues were developed for further exploration:

1. Sources of dynamic managerial capabilities in TMT.

2. Influences on sensing phase of pre-acquisition decision making process.

3. Social patterns stabilising sensing phase of TMT.

1.5 Justification for the thesis

Problematizing research in extant literature as described above is in consistence with Locke and Golden-Biddle (1997) notion of incompleteness of extant literature. This can be understood within the context of publishing recent special issue of Journal of Management Studies, in December 2012, on the micro-origins of organisational routines and capabilities. The importance of micro-foundation is eloquently described by the following *"micro-foundations approach focuses on collective phenomena that need explanation, specifically the creation and development, and the reproduction and management of collective constructs …."* (Felin et al., 2012).

Felin et al., (2012, P: 1357) within the context of micro-foundation categorise it in *building blocks* which involve individuals, processes and structure. Clustering "individuals and processes" and "interaction" in categories are suggested to have main effect on routines and capabilities as they do not exist in a vacuum. Interaction effect, instead, within and among categories forms a second set of effect that contribute to the collective phenomena of routine and capability.

Several scholars have supported this view. Teece (2012) identifies the entrepreneurial management within dynamic capabilities confined to individual actors who are capable of sensing and understanding opportunities. Hodgson (2012) suggests to consider relations between individuals as well and not just confined to individuals. Therefore, explicating how patterns of social interactions support dynamic managerial capability of TMT is a timely inquiry of a collective construct that is problematized by incompleteness of extant literature and rooted in individuals' action and interaction.

1.6   Contribution

The purpose of this study is expected to contribute to knowledge by extending the extant literature (Locke and Golden-Biddle, 1997). The development of a theory that explicates how patterns of social interaction support dynamic managerial capabilities in top management team will draw attention to the sources and influences of such phenomenon. Having the idiosyncrasies of dynamic capabilities is managed by abstracting the role of top management team and conceptualise it during sensing phase as a dynamic managerial capability. Hence, this is expected to contribute to the strategic management literature by developing our understanding of dynamic managerial capabilities as a new line of thought that split from the dynamic capability domain.

1.7 Research process

An inductive case study with four embedded acquisition cases is identified by purposive sampling to undertake this study. Each case represents an acquisition which the firm has embarked on during the period from 2005 until 2012. Three cases are retrospectively reviewed, and one is real time case. The main applied research method is in-depth interviews. A digital recording of unstructured open end interviewing questions was used to collect qualitative data. Data collection of a total number of 19 interviews was completed. Informants are purposively selected to meet eligibility criteria (Easterby-Smith et al., 2012) since the sample units are confined to top management teams who are engaged in acquisition decision making.

1.8 Thesis outline

This thesis is composed of seven chapters. This chapter begins with an introduction to the research, research problem, research question, aims and issues of research which lead to identify justification for the thesis, expected contribution and description of research process.

Chapter two is a literature review starting with a theoretical background to this research. The chapter then presents analysis of the literature and relevant theories of competitive advantage adopting internal prospect on the analysis of the firm with intention of studying managerial agency role in acquisition decision making process adopting dynamic capability angle. Therefore, the logic of this chapter can be summarised along three main areas which contributed to identify a gap in the extant literature and introduced the research question. First, presents analysis of existing literature on dynamic capability (DC) adopting two main streams of literature that forms the underlying assumption of this research. Second, presents analysis of dynamic managerial capabilities (DMC) literature and related topics of strategy processes and decision making process of acquisition decisions. This reflects the level of analysis at

top management team (TMT) to position their role within the wider literature of DC. Third, presents a summary of the identified gap in current knowledge about how patterns of social interaction of dynamic managerial capabilities support top management team during acquisition decision making process.

Chapter three explains the methodological approach beginning with a brief analysis of research paradigms and strategic management to introduce the philosophical views underlying this research. The chapter then presents discussion of the research design beginning with a justification for the use of single case study and selection of case and respondents, data collection methods, discussion of data management and analysis, and a summary of research finding and contribution. It also includes a discussion of quality of research, ethics and limitations of study.

Chapter four presents a brief literature on acquisitions from DC perspective. Because of the nature of this research being a purposive single case, the role of context is addressed in a separate chapter for clarity purposes. It also provides visual illustration of the theoretical framework which summarise the eclectic literature that underlay the research question. This will provide the necessary transparency that reflects on the quality of research findings, contribution and limitation of study.

Chapter five presents the results of data analysis divided into two main sections which contribute to theory building from case studies (Eisenhardt, 1989c). The first section confirms the normative literature in the area of DC asserting the role of experiential learning in supporting dynamic managerial capabilities. The second section presents inductive analysis of qualitative data which provide new insight that precisely addresses the research problem and therefore, existing gap. It identifies three types of social roles that TMT populate and enable effective communication and collective sensing.

Chapter six presents a discussion of findings within the existing knowledge of DC and import some adjacent literature from social psychology to explain new findings using

role theory (Biddle and Thomas, 1966). Chapter seven presents conclusions of the finding in term of contribution to theory, practice and research limitation of study and suggestion for future research within the area of dynamic managerial capability.

Chapter two: Literature review

This chapter provides a review of available literature within the strategic management field to identify a gap within existing knowledge about the role of managerial agency in the development of Dynamic Capability (DC). It is composed of three main sections. However, the development of the three sections emerged retrospectively as the process of data collection and analysis progressed. It reflects the qualitative nature of this study as a reiterative process which influenced the development of comprehensive literature review from the onset of the study till the write up stage. In this process concepts were refined, dropped and added to reflect the narrowing of broad research interest to a focus on the particular as it emerges from the data. The next paragraphs provide a description of the process conducting literature review from a constructivist grounded position which justifies the iterative nature of this study as a result of its underlying methodological and philosophical assumptions.

The purpose of the literature review stems generally from research interest (Machi and McEvoy, 2009) which identifies the research topic. Research topic was vaguely identified at the onset of this study to be within the area of Dynamic capability which is a broad research area. Therefore, a brief revision of DC literature highlights the notion of sensing, seizing and reconfiguration of assets as a broad area of research.

However, the existing knowledge of DC concepts involves a number of sub concepts like Dynamic Managerial Capability which can be covered from different angles. At this stage, an interest in managerial role using DC lenses was developed as well. Also, the identification of acquisition decision as a context for the study was set to establish contextual boundaries of study area. This is supported by a brief literature review on acquisitions based on the similarities between DC patterns and acquisition decision making.

By the same token, DC literature relates to different general concepts that demands at later stages after data collection to cover additional areas of related mainstream literature such as competitive advantage, strategy and micro foundation of DC. This has guided the initial stage of conducting a literature review covering general knowledge on DC within existing research streams of strategic management which identified components of the first section.

In the same time, the access to acquisition companies was also sought based on a decision to have purposive case study which suffice the criteria of UK based acquisition companies of a certain type and size. Once the access was secured, a preliminary data collection was performed which guided the development of research direction to further narrow it into focusing more on TMT role during acquisition decision making.

That is because as a result of the above, some concepts were dropped like resource reconfiguration. Initial findings from initial data collection were mainly concerning issues of implementation of acquisition e.g. integration and reconfiguration of assets to achieve synergies. However, such findings do not provide any special insight to the DC literature which sought to explore the role of managerial action and interaction. Trade-offs has to be made by dropping some concepts of resource reconfiguration. Another decision to narrow further the respondents sample to include only members of TMT who are actively engaged on deciding acquisitions guided further the literature review to explore other dimensions of DC.

Therefore, the first section of this chapter provides a description of the theoretical background of this study. It is composed of two subsections. The first subsection which was written during the write up stage presents analysis of potential sources of competitive advantage, providing general views on strategy focusing on the internal aspect of the firm using Resource–Based View (RBV) attributes and limitations, followed by a general review of literature on Dynamic Capability as the focal theory of

this study. It is worth mentioning that the early literature review on DC and acquisition was integrated as an old writing which was updated during the write up stage of this section. This was undertaken in the second subsection which addresses two existing streams of literature on DC as a resource reconfiguration and as organisational learning. The section concludes with an analysis of DC limitation.

The rest of the literature was written retrospectively and iteratively guided by emergent concepts as the data collection and analysis proceeded. It reflects the actual research topic focusing specifically on action and interaction of top management team in relation to making sense of acquisition opportunity which is part of pre-acquisition decision making process.

Interviewing top management team in this company resulted in new concepts such as social interaction, role, and learning from frequent and repetitive participation in sensing phase through existing systemic and routinized approaches. Hence, such concepts are mainly underlay by a combination of cognitive and social platform of knowledge which guided the development of the second section of this chapter. In chapter 2 the scope of the research is further fine-tuned and streamlined resulting in the migration away from seizing activities and to focus exclusively on exploring TMT role during sensing phase as illustrated in figure 5 chapter 4.

Therefore, the second section addressing the above concepts critically analyses extant literature of managerial role using Dynamic Managerial Capability (DMC) prospect as a component of DC micro foundation. It starts with examining the available literature which asserts the role of managers within the DC framework along three following subsections. The first subsection provides analysis of DMC as a cognitive platform enabling the positioning of DMC literature as a component of DC micro foundation. The second subsection provides analysis of strategy processes and organisational capabilities as a potential research area that facilitates exploring the social platform of

DC micro foundation introducing social interaction among top management teams (TMT). The third subsection provides analysis of the relationship between the study of TMT and DMC in view of the previous two subsections.

The third section provides a synthesis of the reviewed existing literature alongside the first two sections to identify social interaction among TMT as a gap which potentially explains the incompleteness of our knowledge of DC micro foundation, and concludes with a research question.

2.1 Theoretical background

The focus of strategic management discipline is on studying determinants of strategy that are designed to lead a firm to achieve competitive advantage and outperform its competitors (Pettigrew et al., 2010). Strategic management research area has evolved since the 60s, from focusing on the simplicity of static resources and slow changes in the environment to capturing a more dynamic approach in order to sustain competitive advantage within a fast paced changing environment. The new change demands more complex strategizing and organising of innovative and renewal solutions (ibid).

Hoskisson et al., (1999) describe the development of the field as a swinging pendulum moving in and out of the firm. Different positions alternate in each swing along the history of the field. Each position was marked with the names of contributors who espoused different - and sometimes contradictory - theoretical approaches that became embedded in the field of strategic management.

However, one of the two main positions relevant to this study - because of their focus concerning studying potential sources of competitive advantage for the firm - is represented by theories which focus on the external analysis of industry structure to position the firm in its competitive market as opposed to theories which fall in line with

this study because it focuses on the internal analysis of the firm, identifying its strengths and weaknesses using resources, dynamic capabilities and strategy process.

The first views are grounded in theories espousing external perspective on firm analysis such as industrial organisation economics, introduced by Porter in the 80s, game theory, agency theory and transaction costs. IO focuses on external analysis of industry structure to position the firm accordingly.

The second views are mainly grounded in theories espousing internal perspective on firm analysis, such as RBV, dynamic capability and strategy process, cognitive psychology sense-making and collective strategies, organisational learning applying the examination of path dependence, and the role of organisational routines in the evolution of strategy processes (Hoskisson et al., 1999, Pettigrew et al., 2010, Nelson and Winter, 1982).

The internal perspective on firm analysis welcomed the use of resources as a substantial theory that promises to predict the firm's performance (Barney, 1991a, Barney et al., 2011) and spur different approaches concerned with assessing the firm, such as knowledge-based theories (KBT) (Grant, 1996b) and dynamic capabilities (DC) (Teece et al., 1997).

The influence of original Penrosean thinking in her classic 1959 book, "*The theory of the growth of the firm",* on the strategic management field is seen in all subsequent contributions through concepts of internal creation and sustainable competitive advantage, isolating mechanisms which explain a firm's long term superior economic rents through barriers to imitation and competitive advantage and economic rents as seeded in the classic version of RBV (Kor and Mahoney, 2004).

The causal linkage among resources, capabilities and competitive advantage that is believed to contribute to RBV theory of competitive advantage is attributed to Penrose

(1959), who originally noticed the essential role of managers in the conversion of firm's resources to capabilities which can translate into new products (Kor and Mahoney, 2004).

Similarly, Penrose provided alternative explanations as to how the availability of top management teams and technical talents can become a driver for a firm's growth rate and direction at a given period of time using underutilised resources and current knowledge (Kor and Mahoney, 2004).

Arguably, dynamic capability, one of RBV strands, is a contemporary approach that is concerned with understanding sources of competitive advantage (Teece et al., 1997). The next section addresses the internal views on competitive advantage in further detail, starting with a brief introduction of RBV and focusing on DC and strategy process to lay the theoretical foundation for this study.

Resources and product for a firm are two sides of a coin which represent a reduction of two perspectives on a firm within strategic management (Wernerfelt, 1984). This corresponds to the swinging pendulum which reflects the strategic management literature on a firm's pursuing more favourable economic rents than its competitors.

On one hand, resources as a starting point to achieve competitive advantage reflects an inside-out approach toward the environment which focus on the internal strengths and weaknesses of the firm. Accordingly, Nelson and Winter (1982) explored the dynamics of competition according to Schumpeterian views, but emphasise internal business processes to focus on the role of organisational routines and processes in framing organisational strategy instead of products and markets.

On the other hand, product-market was the area of the firm that attracted economic tools to operate and reflects an outside-in approach to sustain competitive advantage. Schumpeterian views of *"creative destruction"* are an example of that (Conner, 1991).

Accordingly, the purpose of the firm is to seize competitive opportunities by creating or adopting radical innovations that outdate competitors' positions.

Based on the above two prospects, DC as a contemporary approach is concerned with understanding novel sources of competitive advantage for the firm outside the traditional boundaries of existing economic approaches to strategy. DC is a research area that has the potential to explore how the combination of resources and capabilities are developed, deployed and protected (Teece et al., 1997).

Therefore, this study adopts two main perspectives on dynamic capability. The first perspective is about DC as a coordination and integration of resources at organisational level, because it suggests a managerial competency. The second perspective explores the mechanism by which DC is developed through experiential learning and accumulation of tacit knowledge, which involve the cognitive capabilities of managerial agency.

For the above reasons, within the context of Penrosean views, managerial agency, collectively and individually, is an area of contemporary research demanding further understanding of its role within the assumed causal linkage between a firm's performance and competitive advantage (Felin and Hesterly, 2007, Felin et al., 2012). This makes the focus of this study on resources and dynamic capabilities in term of strategy content and process timely. The next section provides more specific literature on theories that are relevant to the scope of this study to identify the gap in a better understanding of managerial role at a micro foundational level.

2.1.1 Theories of Competitive Advantage

Competitive advantage is a central concept in strategic management that derives business strategy (Coff, 1999, Lado et al., 1992). Arguably, Chaharbaghi and Lynch (1999) describe competitive advantage to be the *attributes and resources* of a firm that

allow it to outperform its rivals within the same product market and achieve above average rent.

However, according to Barney (2001a), sustainability of competitive advantage in the above sense becomes questionable with the lack of conceptual understanding of what is meant by 'above average rent' and the constituent components that lead to it. Whether internally situated in the firm or externally positioned, or as a result of a mix of both.

Nevertheless, theories that adopt the internal perspective on exploring the relationship between a firm's performance and generation of rent as a potential source of competitive advantage using resource views and dynamic capability were first systemised through the work of Wernerfelt (1984) and emphasised later by Eisenhardt and Martin (2000) advocating the internal organisation of firms as a determinant component of competitive advantage.

However, the origin of the RBV of the firm can be traced back to the 50s and Penrose (1959) who perceived the firm as a collection of resources. Initial work by Penrose focused on growth of the firm by a balanced sequence of resource management, in terms of resource development, resource use, resource acquisition and resource absorption (Rugman and Verbeke, 2004). This is because she was concerned with describing the process of a firm's growth as driven by its entrepreneur.

However, Penrosean motives about a firm's growth are believed to pay more attention to societal efficiency and equity rather than providing firms with a prescription for earning rents (ibid). Although, Penrosean RBV is acknowledged to bridge strategic management and organisational economics, despite contestable arguments in this regard (Kor and Mahoney, 2004, Rugman and Verbeke, 2002, Rugman and Verbeke, 2004), it is agreed that the original message concerning the role of the manager in combining and reconfiguring resources is lost.

It was not until the 80s that RBV took its shape as a formal theory of the firm by Wernerfelt (1984). Accordingly, a resource is anything that can be considered a form of strength or weakness to a firm (Wernerfelt, 1984). Additionally, according to Wernerfelt (1984) for a resource to be a profitable asset within the RBV frame work, it is argued that it has to be specifically tied to a firm's base assets at a certain time,. Furthermore, the need to establish an internal link among such resources is acknowledged in order to transform the firm as a bundle of resources, which is a basic principle in DC literature on resource configuration. According to RBV (Conner, 1991), the specific combination of resource bundles has to be specifically related and connected with the above-average generated rent. In formal management language, there is a consensus among many strategy researchers on linking the competitive position of a firm to "*a bundle of linked and idiosyncratic resources and resource conversion activities*" (Mahoney, 2001).

It is worth mentioning that Wernerfelt (1984) proposed RBV as economic tool to analyse a firm's position from a resource perspective rather than a product perspective. He applied Porter's five competitive forces for that purpose. Hence, resources become the focal of the five competitive forces where the bargaining power of both buyer and supplier revolves around attractive resource. In addition, the threat of substitute in this case is addressed to attractive resource, and therefore, the advantage of first mover is determined by acquiring the attractive resource. Such conceptualisation of RBV is intended to provide the firm with a potential framework to create a situation that is difficult for other firms to copy.

In this case, the resource that a firm acquires represents the base for building up its barriers as in Porter's analogy of five barriers. A valuable resource position barrier is identified as acting as an entry barrier that obstructs other firms from entering at least one market (Wernerfelt, 1984).

However, Wernerfelt (1984) acknowledges the difficulties associated with his conceptualisation of RBV as a tool to create barriers to entry. One of the reasons lies in the associated difficulties with identifying a resource that can act as an entry barrier compared to the ease of product identification. This is in addition to the difficulties which are associated with combining capabilities across operating divisions and setting up the necessary structure and system for implementing such strategies (Wernerfelt, 1984).

Barney (1991a) defined the RBV in its current shape by two main assumptions that underlie resources and capabilities as a heterogeneous distribution among firms and imperfect mobility (Newbert, 2007). He introduced the VRIN framework as a potential source for, arguably, sustainable competitive advantage as a result of acquisition of resources that are valuable, rare, inimitable and non-substitutable (Barney, 1991b). Nevertheless, Barney differs from Penrose by claiming an exogenous value creation as opposed to Penrose's indigenous value creation (Kor and Mahoney, 2004).

Irrespective of indigenous or exogenous value creation, RBV framework identified different situations which enable managers to earn persistent above-average rents. Barney (1991a) synthesised the literature on resource attributes and classified resources into three broad categories: physical resources, human resources and organisational resources. Resources involve tangible and intangible form of all assets, capabilities, organisational performances, firm attributes, information, and knowledge (ibid). However, key aspects of RBV framework were questioned in terms of definition of resource, linkage to market dynamism and how resource advantages are transformed into competitive advantage (Wang and Ahmed, 2007).

Wang and Ahmed (2007) asserted Penrose's views on resource advantage may not be sufficient on their own, but distinctive capabilities have the potential to enable firms to make better use of their resources. For purposes of this thesis, the link between

resources and capabilities as a function of entrepreneurial management, as suggested by the original Penrosean message, will be further discussed in the next paragraph.

Newbert (2007) summarises the early stages which represent an attempt to overcome the latent value of resources, as produced by Penrose and Wernerfelt's argument on resources, suggesting that raw resources must be processed to make them useful (Rubin 1973 cited in Newbert, 2007, P: 122). Process-base literature concerning resource management in line with Rubin's argument, was introduced initially by Prahalad and Hamel (1990), who highlighted the exploitive nature of a firm's core competencies to produce new products. Mahoney and Pandian (1992) affirm the link between resource possession and resource exploitation to maximise productivity or financial returns for firms as resource leverage (Peteraf, 1993) or resource management (Henderson and Cockburn, 1994). Newbert (2007) summarises the types of process-based research - as developed by Leonard-Burton (1992) concerning resource leverage to include core capabilities - as a collection of knowledge sets which are distributed and subjected to constant enhancement from multiple sources: competences by Reed and DeFillippi (1990), capabilities by Amit and Schomaker (1993), organisational capabilities by (Russo and Fouts, 1997) and combinative capabilities by Kogut and Zandar (1992).

By the same token, another significant framework to VRIN within the context of process-based research, concerning resources and capabilities as a potential source of competitive advantage to generate and sustain above average rent in the long run, was introduced by Teece et al., (1997) - namely dynamic capabilities (DC). They argue that such a framework has the potential to explain the mechanism by which competences and resources are combined to be developed, deployed and protected (Teece et al., 1997).

Based on the above DC framework, evolving from process-based research together with the RBV concepts, provides two approaches with strong potential to achieve and sustain

the firm's competitive advantage (Williamson, 1991). However, the mechanism by which the two approaches can provide this result is not clear *"...it is not obvious to me how these two literatures will play out - either individually or in combination. Plainly, they deal with core issues. Possibly they will be joined. As matters stand presently, these two literatures offer general frameworks and provoke insights to which added structure is needed."* (ibid, P: 76).

The above development maintains RBV's position as original theory of effective management of firm's resources, productive opportunities and diversification strategy. An explicit linkage between the three components is claimed later to create economic rent due to "*idiosyncratic deployments*" (Kor and Mahoney, 2004). Idiosyncratic deployments of resources means deployment and redeployment of a specific combination of resources in new ways, referred to later in dynamic capability literature as 'reconfiguration of assets' (Teece et al., 1997).

However, as indicated by Williamson, (1991) the mechanism by which the two approaches will play remains obscure even within our contemporary existing knowledge of DC literature, this is a point that is subjected to closer scrutiny in the chapter that follows. The research question for this study is such to explore the opportunities exposed by perceived lack of understanding as set forth above.

In conclusion, an important perception of the firm is made by the RBV as a seeker of unique inputs which are difficult for other firms to copy, in order to generate potential above normal rents. Such perception implies managerial recognition of such resources having DC prospect as an essential factor (Teece et al., 1997). Although RBV attributes the recognition of unique resources as opportunities to the vision and intuition of the entrepreneurial strategist of the firm as a basic assumption that underlies both RBV and DC, it is not without its limitations (Conner, 1991). The next section provides a brief discussion of the limitation of RBV.

2.1.1.1   Limitations of RBV

Notwithstanding, as explained in the previous two sections, RBV is a substantial theory that developed gradually, based on several contributions by strategic management scholars. It is important, however, to note its limitations, which paved the way for the emergence of dynamic capabilities as, arguably, a renewed form of RBV.

One of the major limitations of RBV is the static notion of resources (Newbert, 2007). Empirical results suggest that owning and controlling unique resources does not lead firms to achieve competitive advantage or survive (ibid). RBV's focus on resource possession rather than exploitation was a major deficiency of the theory, as Barney (2001a) subsequently confirmed. According to Newbert, (2007), this has shifted the focus from resources per se, replacing their passive latent value with a more dynamic approach of idiosyncratic processes of resource configuration.

It is also argued that RBV has a tautological problem which makes its contribution to knowledge unclear (Priem and Butler, 2001b). In this regard, the current constituents of RBV limits its ability to provide practitioner managers with prescriptions for any assumed competitive advantage, unless conceptual development is achieved by its basic premises. For example, resources are never defined, apart from their general perception by Barney, as human, social or physical.

Also, RBV alone does not explain the mechanism by which some firms survive and sustain their competitive advantage within fast and unpredictable changing environments such as high-technology industries like semiconductors, information sources and software (Eisenhardt and Martin, 2000, Teece et al., 1997). This has created a need to expand the RBV framework, resulting in the emergence of DC to explain how firms can achieve and sustain competitiveness within a dynamic environment, focusing on creative or entrepreneurial processes (Teece et al., 1997).

Based on the above, another major limitation most relevant to this study is related to the lack of attention that has been given to the role of managerial agency within the frame work of RBV, as Hodgkinson (2011) famously asserts the obsession of behaviourist conception of strategic moments paints managers as cognitive misers. Therefore, it is argued that the creative act which underlies the entrepreneurial vision in discerning unique resources did not get equal attention from researchers who adopted RBV in strategy field (Conner, 1991). Consequently, prescription for competitive advantage using RBV premises of unique resources remains in *black box* (Priem and Butler, 2001a).

The next section analyses the dynamic capability approach as one of RBV's strands offering an alternative approach believed to espouse the missing elements in the RBV. It represents the focal theory of this study and, therefore, will be further discussed in the next section.

2.1.2 Dynamic Capabilities and Sources of Competitive Advantage

As described in chapter one, DCs as a research area is an approach that focuses on studying the change mechanism of valuable resource reconfiguration over time at firm level and how to sustain that change within a fast-changing environment (Ambrosini and Bowman, 2009). In view of the above revised literature on RBV and competitive advantage theories, DC is, arguably, an area of research proposing a contemporary view on sustainable competitive advantage or efficiency to business strategy within dynamic market (Cavusgil et al., 2007, Williamson, 1991).

The revised literature in the previous section shows how DC as a research area emerged to address the static nature of RBV and capture the evolutionary nature of resources and capabilities (Wang and Ahmed, 2007).

The ability of DC as a theoretical concept to capture the evolutionary nature of capabilities, as explicated by Winter (2003), and distinguish it from RBV based on the

use of the general definition of resources by Barney (1991a) explains its emergence as a contemporary approach to RBV to study the relation between firm performance and competitive advantage or efficiency (Newbert, 2007)

Capabilities are embedded in action as opposed to the static nature of resources that serve as an input to organisational capability processes (Grewal and Slotegraaf, 2007). Adopting Grant's (1996a, p: 377) definition, organisational capability is the "ability to perform repeatedly a productive task which relates either directly or indirectly to a firm's capacity for creating value through effecting the transformation of inputs into outputs".

Having the same perspective, core capabilities are a collection of knowledge sets which are distributed and subjected to constant enhancement from multiple sources (Leonard-Barton, 1992). Such sources are inferred from the mechanisms by which a firm accumulates its knowledge through either learning based on existing knowledge or acquisition of new knowledge. For example, this might imply exploration of unexploited areas of technology and transferring of social knowledge. The combination of the two sources of knowledge - either existing or new - provides the firm with *combinative capabilities* which apply current and new knowledge (Kogut and Zander, 1992).

Existing conceptual definitions of DC accentuates its distinctive feature as the only approach which, in essence, focuses on how managers change their valuable resources to adapt to change and sustain that change over time. Examples of basic DC by which firms alter resource base at corporate level includes reconfiguration of support activities and core processes, leverage of existing resources, the encouragement and provoking of learning and, finally, creative integration (Ambrosini and Bowman, 2009).

 The next paragraphs review a selection of some original definitions in the field of DCs followed by explanation of mainstream views of DCs literature and the resulting debate which contributes to defining a gap for study.

Teece and Pisano (1994) first introduced DCs as a framework and provided a definition of DC using competences at its core: "*the capacity to renew competences so as to achieve congruence with the changing business environment*" (Teece et al., 1997). The scope of this definition links the existence of DC to a context of dynamic environment.

DCs imply adaptive response and/or ability to change and renew competences by exploiting the resources and capabilities base, as suggested by Helfat and Peteraf (2003) following the definition of DCs as "*Dynamic capability involves adaptation and change, because they build, integrate or reconfigure other resources and capabilities*".

Competency is defined as "*enabling characteristic of a manager that results in superior performance as judged by this superiors*" (Macleod and Wyndham, 1991). Such enabling characteristics may take different forms, such as a skill or a trait. However, it is argued that competency is best observed while it is in action mode because it is based on behaviour. Thus, such definition relates the use of competency to individuals' performance (ibid).

Eisenhardt and Martin's (2000) definition adopts a different angle to DC as a construct because it explicitly incorporates processes as "*the firm's processes that use resources - specifically the processes to integrate, reconfigure, gain and release resources-to match or even create market change. Dynamic capabilities thus are the organisational and strategic routines by which firms achieve new resources configuration as market emerge, collide, split, evolve and die*" (Eisenhardt and Martin, 2000). The scope of this definition highlights two elements of DC: its nature as a routine and the position of such routine in terms of structure at strategic and organisational levels. An example of this is

strategic decision-making in which managers pool their different business, functional and personal expertise to aid them in the making of strategic decisions.

Based on the above, routine can probably be defined as a set of interdependent operational and administrative practices that evolve gradually based on feedbacks (Zollo and Winter, 2002) enabling people and groups to perform *idiosyncratic* activities using firm-assembled specific assets (Teece et al., 1997). Hence, DC as a construct could be understood as practices that exist organisational-wide, for example a merger or acquisition (ibid).

Winter (2003) proposes a definition which emphasises the specificity or peculiarity of a routine as a characteristic feature of DC among other capabilities of the firm: "*An organisational capability is a high-level routine (or collection of routines) that, together with its implementing input flows, confers upon an organisation's management a set of decision options for producing significant outputs of a particular type*" (Winter, 2003). This definition excludes any improvisation or ad-hoc problem-solving which Winter (2003) categorises as a firm's responsive behaviour to change. On the contrary, it implies that dynamic capabilities are a learned behaviour of repeated patterns that are partially founded in tacit knowledge and specific objectives, which is consistent with Zollo and Winter's (2002) definition of DC.

Helfat et al, (2007) provide the following overarching definition of DC construct: "t*he capacity of an organisation to purposefully create, extend or modify its resource base*". The element of purposefulness is a distinctive feature of DC as a capacity. The definition of DC by Zahra et al (2006) shed a light on this element by adding additional elements that operationalize such purposefulness. "*Dynamic capabilities are the abilities to reconfigure a firm's resources and routines in the manner envisioned and deemed appropriate by the firm's principal decision-makers*". This definition, combined with Teece et al.'s (1997) definition of DC is adopted in this study.

The rational for such a choice is because it incorporates both aspects of DCs. The cognitive and social aspects of DC, which attribute it as a capacity to the principal decision-maker of the firm as explicitly articulated in Zahra's definition. This implies the locus of DC research purposes, which helps to identify the unit of analysis for further investigation and, hence, leads to operationalize DCs as a construct.

From the above definitions, we can conclude that DCs can be potentially observed in the ability of the principal decision-maker of a firm to manage resources and capabilities to achieve superior performance in order to adapt or change within a dynamic environment. However, the mechanism of purposefulness which explains managers role in developing DC is absent from most DC original definitions and empirical studies, despite the existence of thin literature, which will be revised in Section 2.2.

Empirical literature on DC proves the use of DC framework can provide other research areas with a conceptual foundation as a theoretical grounding. For example, Newbert's (2005) study on nascent entrepreneurship activities provides evidence for the importance of a specific set of activities which entrepreneurs embark on at that stage as a functional component of new firm formation within a highly dynamic environment. His study revealed the evolutionary nature of new firm formation as an executed process at the individual level instead of organisational level.

Another study by Deeds et al., (2000) provides evidence that suggests new product development (NPD) within hi-tech firms is a function of, not just the firm's scientific and technological skills, but also managerial skills and leadership style as represented by strategic decision-making about geographical location, and the acquiring of related experience and understanding in the NPD process.

Additionally, innovation studies cultivated using DC framework as empirical findings, elaborated innovation in firms as a function of knowledge creation represented by

managerial ability to sense new technological opportunities and knowledge integration, as illustrated by the ability of the firm to seize and implement these opportunities through organisational processes and structures (Verona and Ravasi, 2003). Their evidence illustrates the development of new capabilities is dependent on the orchestration of organisational structure, culture and people to combine a simultaneous current product innovation and instigate creativity beyond present competencies.

Similarly, O'Reilly Iii and Tushman's (2008) empirical study supports the simultaneous combination of efficiency and innovation as a dynamic capability and not a strategic trade-off that is known in organisational design as a challenging ambidexterity, enabling a firm to adapt over time. Their findings suggest a substantive role for senior teams in terms of leadership skills providing vision, strategic intent, consensus building and commitment within the team and acquiring the necessary skills to manage differentiated sub-units with an aligned sub-unit to build DC by reconfiguring, leveraging existing assets and learning new capabilities to both explore and exploit.

In support of the above point, DC framework provides an important explanation with regard to firms differences in growth and survival rates within international business and global strategy research that focuses on internationalisation strategy as a function of both explorative and exploitive dynamic internationalisation capabilities which influence organisational learning (Prange and Verdier, 2011). The findings of both above studies seems to be supported by the corridor principal of Ronstadt (1988),which proposes entrepreneurship research with regard to gaining knowledge and information as a fostering mechanism of new firm formations. It also provides firms with an adequate principle to avoid core rigidities (Leonard-Barton, 1992).

However, Wang and Ahmed's (2007) review on some other empirical studies on DC revealed other processes which are related to dynamic capabilities and seem to be firm or industry specific processes which accord with Teece's (2007) conceptualisation of

DC as idiosyncrasy . For example, findings by an empirical study on DC within a health care firm suggested internal and external integration of knowledge as a basic foundation for the renewal of DC of the firm adopting competence approach (Petroni, 1998) Another study by Rindova and Kotha (2001), an in depth case study of Yahoo and Excite within a hypercompetitive environment, captured a co-evolutionary form of continuous transformation of organisation form, function and associated advantage of being an internet-based firm using firm DC. This work affirms the feature of continuous transformation as a base for transient competitive advantage due to hyper-competitiveness asserting a flexibility-based process.

Another study by Lampel and Shamsie (2003) asserts the crucial role of mobilisation and transformation of capabilities in Hollywood's movie industry by a process of transforming and assembling resource bundles into feature films. The findings of their work assert the link between the evolution of industry capabilities and the relationship between firm and industry structure.

However, an observation about the above studies and empirical research on DC in general, is the lack of studies which can summarise DC commonalities across firms from an empirical point of view (Wang and Ahmed, 2007). Below is a further summary of available literature on different DC views within strategic management literature which summarises the underlying assumptions of this study towards existing knowledge on DC.

2.1.2.1 Dynamic Capability as Resource Configuration

The significance of resource management to a firm's value creation is acknowledged as critical as resource acquisition and possession in the original argument by Penrose (1959). Heterogeneous outcomes of firms which use similar resources and perform under similar environmental conditions are differentiated by the choices which managers of those firms make to manage their resources (Sirmon et al., 2007, Zott,

2003, Rumelt, 1991). Similarly, within a fast-changing environment, long term survivability is considered to be related to innovation. This can be fostered by a firm's organisational capabilities, potentially through the leverage of organisational knowledge (Grant, 1996a).

Therefore, managerial concern should spin around the creation and bundling of resources and capabilities that generate and appropriate economic rent for the firm (Amit and Schoemaker, 1993). This implies that organisational capabilities may reside in human resources (Katkalo et al., 2010). Although RBV assumptions underlie the above views, DC explicitly places more emphasis on the dynamic orchestration of a set of complementary and specialised resources and capabilities that are scarce, durable, not easily traded and difficult to imitate in a material sense and in their idiosyncratic transformational characteristics (Teece, 2007).

The above views pave the way to conceptualising dynamic capabilities as a potential source of competitive advantage that can be understood as a system of resources and capabilities which managers manipulate to develop and leverage firm strategy in order to match firm capabilities with dynamic market opportunities for customers and owners value creation (Sirmon and Hitt, 2003).

However, such conceptualisation triggered an important critique within this area because of considering competitive advantage as a promised consequence of DC (Dierickx and Cool, 1989). The defence of such a critique stems from the fact that the action of DC is based upon a firm's resources and capabilities (Easterby-Smith et al., 2009) having the previously mentioned the notion of capability embedded in resources (Grewal and Slotegraaf, 2007).

A different view of the same perspective is provide by Grant's (1996a) framework knowledge-based theory (KBT) proposing the integration of strategic resources, i.e. knowledge as a core element of organisational capability. In his summary of the

literature on organisational knowledge and learning, he distinguishes between knowledge acquisition and knowledge application, where the second is mainly about knowledge allocation processes which bring together many areas of specialised knowledge by individuals as a mechanism to produce market products and services. Therefore, Grant's (1996b) framework suggests that the primary role of an organisation is knowledge application rather than knowledge creation, by processes of accumulation, combination and exploitation of resources (Grant, 1991). Following Penrose (1959), a knowledge-based view of the firm is a collection of knowledge which resides in its structures of coordination and learning (Kogut and Zander, 1992, Nelson and Winter, 1982).

By the same token, Galunic and Eisenhardt (2001) share the same views of DC as a concept of resource manipulation by managers for new configuration of assets at strategic and organisational level within a dynamic environment.

Such a theoretical position makes an important contribution to our understanding of dynamic capabilities. It recognises explicitly the significance of intangible concepts such as know-how (Teece et al., 1997), corporate culture (Barney, 1986a) and reputation (Hall, 1992) in the creation of competitive advantage.

Accordingly, the analysis of the firm using dynamic capability lenses espousing the above theoretical position should aim at understanding the "know-how" of the firm (Kogut and Zander, 1992). Know-how as "*a set of "inert" resources that are difficult to imitate or redeploy*", e.g. experience, skills etc., indicate that dynamic capabilities reside in the organising principles which makes such capabilities replicate within the firm, but difficult for competitors to imitate (Kogut and Zander, 1992).

Given that know-how resides within people (Nonaka, 1994), this implies that knowledge of the firm can be understood as a social construction of people according to Kogut and Zander (1992). Based on the above views, know-how is seen to be tacit

knowledge (Grant, 1996b), which can be understood as a practical skill or expertise when accumulated by individuals, allowing them to do things more efficiently (Kogut and Zander, 1992).

Coordination of capabilities implies sharing explicit and implicit tacit knowledge to combine them into effective configuration. Mechanisms of knowledge sharing within the firm include its human and social capital (Hitt and Duane, 2002). Human capital, in the case of managerial relational skills which develop over time based on mutual trust, involves the use of technology and personal interactions to create internal social capital (Sirmon and Hitt, 2003).

One way of understanding knowledge application as a dynamic capability resides in the ability to coordinate knowledge through the regularities of structuring work and interactions of employees (Kogut and Zander, 1992, Nelson and Winter, 1982). The interaction of employees is known to follow implicit or explicit know-how that resides in a firm's routine or individuals. The know-how capability, however, is the understanding of how to organise a firm along its formal and informal lines according to Kogut and Zander (1992).

Although broad composite of knowledge as information and know-how provides the components of what individuals and groups within a firm share and transfer between them, making it costly for others to imitate (Kogut and Zander, 1992, Grant, 1996b). Information as declarative and procedural knowledge, referred to by Nelson and Winter (1982)as *routines,* e.g. blue prints, policies and procedures, does not imply any know-how capability that is categorised as codified knowledge (Grant, 1996b).

Building on the RBV framework of VRIN (Barney, 1991a), tacit knowledge that is latent in idiosyncratic resources and capabilities using the knowledge-based theory prospect of the firm provides according to Kogut and Zander (1992), *a higher order organising principle* which is difficult to imitate or diffuse by others. However,

differences in the organising principles of a firm differentiate it from other firms based on its knowledge base and learning capabilities (Lam, 2000).

Accordingly, a firm is defined to be a social community where individuals and social expertise engage on intentional action. This action is not reduced to individuals, but argued to be structured by a *higher order organising principles* (Kogut and Zander, 1992). Based on that, one way of understanding the performance of a firm can be achieved by understanding the mechanism of know-how application; this illustrates the tacit aspect of the knowledge.

Sirmon et al (2007) conceptualise a firm's dynamic capability as a number of sequential processes of efficient resource management which starts by resource structuration, bundling and leveraging. Such processes aim at efficient, flexible, creative and timing management and coordination of resources, in addition to the typical efficiency (Teece et al., 1997) and control over scarce resources (Wernerfelt, 1984) of DCs, to overcome the mere acquisition of static resources.

Sirmon et al's., (2007) framework makes the dynamism of resource management contingent on a feedback loop regarding environmental contingencies for a firm to adapt accordingly. Hence, adaptation is achieved through a continuous synchronisation and coordination of internal resources with changes in firm environment.

The above argument implies a temporal aspect of resource management which entails a dynamic management in response. The dynamism of resource management processes is based on environment contingencies, as mentioned above. Such processes aim at exploitation of opportunities that are created by such contingencies - changes in industry structure, stability of market demand and probabilities of environmental shocks and environmental munificence (Sirmon et al., 2007).

Therefore, it is argued that a firm's sustainable value creation depends on dynamic resource management processes rather than just having VRIN resources. However, optimisation of value creation depends on managerial ability to synchronise the three components of resource management (ibid) as described further below.

Structuration of resources is the first process of resource management. It is composed of different processes which a firm uses to obtain the necessary resources for later bundling and leveraging. It is about the management of a resource portfolio which may be generated through resource purchase, internal development of resources as they accumulate, or divestment of *firm-controlled* resources (Sirmon et al., 2007).

Secondly, already structured obtained resources are bundled to transform capabilities. Capabilities are transformed by the integration or combination of unique resources which enable firms to embark on specific actions. The process of resource integration which forms capabilities is achieved through a number of smaller activities such as stabilisation, enrichment and pioneering as explained below (ibid).

Capability stabilisation is achieved by incremental improvement to existing capabilities within low environmental uncertainty as opposed to pioneering, which is mainly creating new capabilities to adjust to a high uncertainty environment. The last activity of resource integration is capability enrichment, which occurs through the extension of current capabilities to enhance competitiveness of the firm among competitors by adding a complementary resource that is newly developed or by adding additional resources to the resource portfolio.

Finally, leverage of capability which means the ability of the firm to seize market opportunities by exploiting its capabilities through processes of mobilisation, coordination and deployment. In other words, capability leverage is about the identification and coordination of peculiar capabilities to address particular

opportunities through the use of a particular strategy which illustrates physical deployment of capabilities.

Coordination of resources is argued to be the first step for a capability-leveraging strategy. It embraces the notion of effective and efficient combination of capabilities to organise them in idiosyncratic ways. This leads to protecting resources and capabilities of the firm from being imitated or duplicated by competitors (Sirmon et al., 2007).

Galunic and Eisenhardt (2001) argue that corporate divisions of multi-businesses are a combination of capabilities and product market areas of responsibilities which can be reconfigured in many ways to lead to a competitive advantage.

Empirical work on the relationship between structure and DC provides evidence that reconfiguration of structure by recombining different business divisions has a strong relation with DC to adapt according to changes in the market area (Galunic and Eisenhardt, 2001).

DCs based on the above analysis are simple rules using motivational values which enable managers to construct their adaptive behaviour by combining economic and social logics to create new productive assets as one way of for the reconfiguration of assets.

In conclusion, the above views reshape the definition of the modern firm to be a social entity that is inhibited by a social community. Such entity is in constant development as decision makers create or respond to market change by new reconfiguration of resources that accordingly results in constant reshaping of this entity.

The above literature contributes to perceiving DC as a process of resource management and bases it on collective imperatives of a firm's social community where tacit knowledge and incentive systems are based, as evidenced by Galunic and Eisenhardt

(2001), to encourage weak units, and adhere to value systems, such as rewarding loyalty and fairness.

In conclusion of this section on DC, resource and capabilities configuration in accordance with Teece et al (1997) means coordination and combination of assets of the firm. This concept is essentially about the combining and recombining of knowledge that is embedded in resources and capabilities in order to accord with changes in the external environment. However, another existing view concerning DC is introduced next as a concept of organisational learning which complements the notion of resource reconfiguration.

2.1.2.2 Dynamic Capability as organizational learning

Another stream of literature which builds on Teece et al's (1997) original concept of DC and Nelson and Winter's (1982) evolutionary conceptualisation of organisational routines, associates dynamic capabilities evolution with some learning mechanisms.

DC, in essence, deals with dynamic environment. Therefore, DC deals with mechanisms for change, like innovation and organisational learning (Fiol and Lyles, 1985), which connect DC to knowledge management as its strategic asset (Easterby-Smith and Prieto, 2008). The argument of this stream is derived from behavioural and cognitive traditions in organisational learning studies (Zollo and Winter, 2002).

Organisational learning for firms is believed to be a critical element of competition (Miller, 1996, Pavitt, 1991) explaining why it should be more strenuously emphasised than the other elements of competition, such as a firm's immediate output. In fact, organisational learning is believed to be more critical for firms within a dynamic and less munificent environment for a number of reasons that collude with DC assumptions.

It is argued that organisational learning improves firm survivability and competitiveness by adapting to a constantly changing environment and maintaining fit on one hand,

while sustaining its customer satisfaction on the other (Luo and Peng, 1999). This implies a potential link between organisational learning and competitive advantage by overcoming associated limitations of individuals' cognitive traits (Teece, 2007).

In line with the previous context of DC as a reconfiguration of resources, one way of understanding organisational learning is as a mechanism which influences and informs resource acquisition strategies in term of required amounts of resources that the firm needs for purchase, allocation and leverage processes, as explained in the previous section (Keats and Hitt, 1988).

Another way of understanding organisational learning represents it as a mechanism of organisational capability development. Given the outlined advantages in the previous paragraphs, Zollo and Winter (2002) argue that dynamic capability *"is a learned and stable pattern of collective activity through which the organisation systematically generates and modifies its operating routines in pursuit of improved effectiveness."* Accordingly, DC as organisational learning routine is characterised as stable and path-dependent routines, structured trial and error and experiential learning which develops through habitual and repetitive patterns of deliberate learning (Zollo and Winter, 2002).

These evolutionary patterns are learned patterns which enhance operating routines to consequently improve effectiveness. This view represents one argument of DC definitions that shape the current debate on DC and adopt effectiveness as a consequence, contrary to Teece's (2007) original notion of competitive advantage as a consequence of DC (Easterby-Smith et al., 2009).

Sources of such learning are attributed to the *co-evolution* (Zollo and Winter, 2002) of three learning mechanisms, namely experiential learning, articulated knowledge and codified knowledge. Articulated and codified knowledge are categorised as deliberate cognitive learning mechanisms, whereas experiential learning is a passive learning mechanism - in contrast to the other two mechanisms - as people learn by doing and

knowledge accumulates tacitly from past experiences. This notion reflects the behavioural aspect of the learning mechanism. The mix of the three mechanisms reflects the systematic ways of shaping the operating routines which firms adopt.

Although Zollo and Winter's (2002) framework identifies the importance of deliberate learning mechanisms based on experience where routines and codified knowledge are central to this experiential learning, they argue that the effect of such learning creates a higher level of new processes and routines (Easterby-Smith et al., 2009). This explains how dynamic capability emerges from the *convolution* of accumulated processes of tacit experience together with activities of both knowledge articulation and codification (Zollo and Winter, 2002).

Learning in organisational context has been debated for over 40 years. However, the notion of learning within DC context was originally highlighted by Teece et al., (1997). But, learning on this occasion is local and dependent on previous investment decisions which went through a process of trial, feedback and assessment. Therefore, the changing environment of previously experienced learning implies a declining effect of learning.

Contrary to this , Zollo and Winter (2002) emphasise the learning of new knowledge within changing context as an important feature of present task and not just limited to the path-dependence of the firm for it to have a dynamic capability. This view implies that DC arises from internal learning mechanisms which represent the systematic method of modifying operating routines and not the routine itself. In other words, it is the interaction and mutual adjustment of the three learning mechanisms as they simultaneously co-evolve that involves a dynamic capability.

Based on this, we can deduce from the significance of tacit learning as a result of experience that both tacit knowledge and codified knowledge are important organisational resources for learning.

In this case, resources which are difficult to trade are related to knowledge assets, as in tacit knowledge (Teece, 1981). Firm-specific tacit knowledge, when accumulated internally, is considered a non-tradable asset due to its idiosyncratic nature (Dierickx and Cool, 1989) as a result of embeddedness in routines and organisational processes. It provides the firm with a specific type of resources known as "competences" (Prahalad and Hamel, 1990). Competences are argued as representing a firm's specific bundles of organisational routines (Katkalo et al., 2010). In other words, organisational processes are routinized as employees recurrently perform a task that potentially leads to competitive advantage.

Nevertheless, circumstantial elements of learning remain problematic for DC theorists. Learning, by nature, is conceived as bounded by a performed task (Zollo and Winter, 2002). Therefore, repetitive task-oriented learning is argued as being contextualised by two sets of tasks - operational or strategic. The nature of the task shapes the nature of systematically-learned patterns, but still attracts substantial critique (Dierickx and Cool, 1989, Schreyögg and Kliesch-Eberl, 2007).

Having noted that, according to Barney (1986b), critical resources of a firm accumulate as built-in rather than acquired in *strategic factor markets* , Direickx and Cool (1989) point out that, in the long run, sustainable rents cannot be attributed to purchasable assets as a source since they can be traded in the market. Therefore, significant attention was paid to inputs that cannot be traded in the market, such as learning–by-doing and organisational culture and managerial shared experience, which are specific intangible assets that a firm develops internally over time (Prahalad and Hamel, 1990, Teece, 2007).

Additionally, strategic action as a second feature of the task which a firm engages itself in is considered a determinant of returns to learning and argued to be a substantial potential option for learning (Zollo and Winter, 2002). Therefore, it is argued that

effectiveness of learning depends on a firm's task features and operating routines, which it might want to adjust or redesign.

The above literature implies that inimitability is rethought of in term of characteristics of the asset accumulation process at organisational level rather than as resources on their own, which links with inimitability of dynamic capability (Dierickx and Cool, 1989).

Drawing on resource and capability literature, categories of firm resources - tangible assets (physical, financial, human and organisational), intangible assets (reputation, teamwork amongst its managers) (Barney and Hesterly, 2011) and capabilities which refers to firm's ability to deploy and reconfigure resources using organisational processes (Amit and Schoemaker, 1993) - combined from a VRIN work frame prospect, yield competitive advantage when they are used to implement a strategy (Amit and Schoemaker, 1993).

They are tools that aid managers to capitalise on their resources, conceive their strategies and implement them (ibid, Teece et al., 1997). In this case, capabilities become information-based processes that the firm develops specifically over time through complex interactions among all three categories of the above mentioned resources.

Assumptions that underlie resources such as heterogeneity and immobility's also apply to capabilities (Barney and Hesterly, 2011, Teece et al., 1997). For example, capabilities heterogeneity means that firms acquire peculiar capabilities which imply that certain skills become routinized to perform an activity in a way that other firms lack (Nelson and Winter, 1982). Likewise, capabilities immobility means that the cost of imitating a firm's capabilities is prohibitive for competitors to develop or acquire; hence, the difference between them may be long lasting (Barney and Hesterly, 2011).

A key feature of capabilities which invited critique to the systematically learned pattern is that *they are often developed in functional areas* (Amit and Schoemaker, 1993). Examples of this are marketing skills, teamwork and cooperation among a firm's managers (Barney and Hesterly, 2011). As a result of this, a firm develops its capabilities at organisation level in functional areas which makes the firm more prone to market failure, such as repeated process, manufacturing flexibility, and product innovation (Amit and Schoemaker, 1993).

Eisenhardt and Martin (2000) refer to this type of capabilities as operational capabilities or zero and ordinary level capabilities (Winter, 2003). They reflect the capacity of a firm to exploit its resource base of learning and refining by modes of repetitive patterns of doing. Such capabilities permit a firm to make living (Winter, 2003). For example, routine, as one type of pattern, may be captured within organisations as processes, procedures, skills and incentive systems in order to frequently repeat its success.

Sirmon et al., (2007) explain how experiential learning as a source of operational capabilities leads to rigidities. Those capabilities are gained through experience in which individuals who mobilise the capabilities of the firm learn to develop routines. Such routines result in creating a dominant logic as an outcome of trial and error learning, or selection and retention of past behaviour (Gavetti and Levinthal, 2000). Those mechanisms allow people to identify the specific capabilities that are needed for leveraging strategies. However, being categorised under path-dependent learning process, it is also believed to constrain future design of leveraging strategies, which can be the downside of capabilities (Leonard-Barton, 1992).

Given Zollo and Winter's (2002) framework, the above routines are meant to award the firm with current revenues and profits in an almost static environment. Improvement in this case is based on gradual accumulation of tacit knowledge. However, within a fast changing environment, they argue that the level of learning has to be at a higher order

and adopt *systematic change efforts* to spot changes in the environment. Feedback is a necessity within such a system to update higher order learning mechanisms that produce higher order capabilities or DC.

In another note, the combination of dynamic and operational capabilities constitutes organisational capabilities (Eisenhardt and Martin, 2000, Winter, 2003). Similarly, organisational capabilities are argued to reflect the capacity of the firm to perform a particular function at a minimal acceptable approach (Teece et al., 1997).

Notwithstanding, the resulting impact of each type of capabilities is contradictory in nature since the operational leverage resources and sustained patterns which lead to inertia are necessary for technical fitness (Eisenhardt and Martin, 2000). Contrary to this, DCs represent capability effectiveness and flexibility so that the capability performs its adaptive function to sustain fit (ibid).   It is argued that failure to do that turns core competencies into core rigidities (Leonard-Barton, 1992).

Dynamic capability, however, emphasises resource leverage and high order sustained patterns (Teece et al., 1997). As argued in this section, it is potentially derived from different sources, for example tacit knowledge (Zollo and Winter, 2002). Tacit knowledge becomes visible through choices which an agency makes to modify operational and functional routines as a result of learning, according to Zollo and Winter (2002). Therefore, the two categories of capabilities may be distinguished by their two different effects on the conduct of the firm, although they arguably develop through the same mechanism.

Accumulation of knowledge is an internal mechanism which firms also adopt to develop their dynamic capabilities, but with a focus on developing internally required resources in view of resource scarcity (Sirmon et al., 2007). The significance of such mechanism to firms is that it enables them to behave reactively and proactively depending on its contingent context. A firm would be reactive once there was a need to

respond promptly to market opportunities, for example by building managerial knowledge and skills to prepare a pool of professional employees who can assume managerial positions as needed. Accumulation of knowledge as a mechanism to develop DC is also argued to enable firms to create and invest in real options by developing internal resources in anticipation of future demand (Sirmon et al., 2007). An example of accumulation of knowledge through investing in real options is the development of tacit knowledge through experiential learning or establishment of strategic alliance to learn new knowledge (ibid).

It can be seen from the above that operational or functional capabilities as repetitive task oriented leads the firm to achieve superior operational capacity, as argued by Eisenhardt and Martin (2000) which causes inertia that is necessary to sustain technical fitness for the firm. In other words, technical fitness is expressed by the effectiveness of a capability to perform its function.

Contrary to this , dynamic capabilities are mainly related to the ability of the firm to exploit its existing capabilities leading to competitive advantage by creating, extending or modifying operational capabilities (Eisenhardt and Martin, 2000). It is also known as a reconfiguration of existing capabilities (Teece et al., 1997)

In conclusion, organisational learning provides a vehicle to make resources and capabilities of the firm difficult to imitate, substitute, sell or buy. As explained, tacit organisational knowledge is an invisible asset which is firm specific and accumulates slowly over time (Amit and Schoemaker, 1993) depending on the history and trajectory of the firm evolution. This view underlies the second stream of literature which understands dynamic capability as a process of experiential learning and accumulation of tacit knowledge. However, the paradox of the two effects and the consequences of experiential learning and DC add to the on-going debate and highlight the limitation of DC which is discussed next.

2.1.2.3 Limitation of DC

Dynamic capability concept is criticised for a number of reasons. Conceptual problems and empirical measurement of DC, as well as contextual boundaries, summarise its presumed limitations (Easterby-Smith et al., 2009, Felin et al., 2012, Katkalo et al., 2010).

On the conceptual front of its critique, definitions of the construct and its consequences remain debatable. For example, mixing the existence of DC with its effects, which link the existence of DC with environmental conditions, is one of the obscure areas in dynamic capability (Zahra et al., 2006). Also, it is difficult to distinguish between operational and higher order capabilities, capabilities which rely on experiential or incremental learning processes (Pandza and Thorpe, 2009) and those which rely on new trajectories of knowledge that have not been experienced beforehand (Easterby-Smith et al., 2009).

On the empirical front of DC critique, it is argued that it is difficult to measure the relationship between DC and firm performance which corresponds to the conceptual mix between the concept and its subsequent effect. It is also difficult to measure the relationship between DC and its underlying operational processes, or a firm's idiosyncratic or bundled routines and processes (Easterby-Smith et al., 2009).

On the context front, existing research paid much attention to dynamic industries, such as semi-conductor and bio-technology industry, in comparison to traditional industries, public sector or cross countries (Easterby-Smith et al., 2009).

Furthermore, a definitional issue of DC remains to be cleared to avoid the mixed use of interpretation and terminologies of DC concept, as illustrated by the given example of the nature of DC, whether it is structured and persistent, according to Zollo and Winter (2002), or emergent and evolving, according to Rindova and Kotha (2001) and Wang and Ahmed's (2007) review on DC and its research agenda.

It is also argued that the functional relationship between resources and capabilities cannot be predetermined. That is because the relationship varies according to the temporal effect of resource type, quantity and quality on performed organisational routines that might sometimes act as a constraint. Nevertheless, coordination and cooperation within teams is an ability of the organisation conceived to be a key feature in the relationship between resources and capabilities (Grant, 1991).

Finally, and of utmost importance to this study, is the lack of link of micro-foundation issues with DC, such as managerial issues in terms of cognition and search processes (Gavetti and Levinthal, 2000). In accordance with this, existing knowledge on DC is highly focused on organisational capability processes focussing on resource configuration and organisational learning processes. The role of managerial agency and interaction between managers and organisational processes to develop DC is still in a black box. The Journal of Management Studies, 2012 special issue, is sympathetic with this view highlighting the lack of understanding of the micro-origin of organisational routines and capabilities, as will be further discussed in the next section.

2.2   Dynamic Managerial Capabilities

This section analyses dynamic managerial capabilities (DMC) literature, exploring the origin of this literature and understanding the relationship between managerial role and the development of dynamic capability. It will start by visiting the literature on concept definition, then describing the relationship between DC and DMC. Then, it will conclude with positioning this study within this literature.

This study adopts the following definition of dynamic managerial capability (DMC) "*the capabilities with which managers build, integrate, and reconfigure organisational resources and competencies*" (Adner and Helfat, 2003). The rationale for choosing this definition is because it captures the qualitative difference that is argued to be embodied in DC and can be explained by *human conscious action* at higher level of decision-

making to transform existing routines and disturb the status quo of order and stability (Katkalo et al., 2010).

This asserts the conspicuous managerial role in adapting their firms according to changing environments, as acknowledged by many strategy scholars (Adner and Helfat, 2003, Augier and Teece, 2009, Ambrosini and Bowman, 2009, Castanias and Helfat, 1991, Martin, 2010, Helfat et al., 2007, Pettigrew, 1992).

DC as an integrative approach (Eisenhardt and Martin, 2000) allows the disintegration of the complex role played by managerial agency to have better insight into managerial actions from their actual doing by potentially exploring DC categories (Liao et al., 2009). This may also lead to explaining emerging relations between organisational DC and managers' actions which identify derivers and elements that underpin such a relationship (Pandza, 2010).

It is suggestive that the above reviewed literature on dynamic capability fails to capture the role of managers during the evolutionary process of DC. It draws, largely, therefore on the on-going debate about fundamental issues concerning managerial agential role that remain in a black box and, therefore, shape future direction of studies within this area of research (Easterby-Smith et al., 2009, Felin et al., 2012). The role of individuals, especially managers, among other components of DC micro foundations such as processes and interactions or structure, is deemed critical for the development of DC, which calls for further investigation (Winter, 2012).

In accord with the above views, existing literature on dynamic capability as methods of resource and capability coordination and organisational learning processes gives rise to human, social and cognitive managerial attributes as a repertoire of leveraging skills and experiences that translate into *managerial discretionary* and *intentionality* (Adner and Helfat, 2003). This intentionality interferes with such processes and control by guiding their behaviour (Sapienza et al., 2006, Ambrosini and Bowman, 2009, Sirmon et al.,

2007). Similarly, the notion of capability embeddedness in organisational processes results in humanising such processes, which asserts the critical role of managerial agency, which directs such processes to enable organisational change and evolution (Penrose, 1959).

It is argued, therefore, that managerial agency (or entrepreneurship) is critical in asset reconfiguration as a potential source of sustainable competitive advantage (Adner and Helfat, 2003, Cavusgil et al., 2007, Teece et al., 1997). From a capability prospect, the available thin literature in this regard suggests that managers coordinate resources to manage organisational capabilities. However, relevant literature on dynamic managerial capabilities is scant (Ambrosini and Bowman, 2009, Martin, 2010). Therefore, the role of managers in transformation and configuration of firm resources and capabilities to achieve its competitive advantage is still in its infancy (Priem and Butler, 2001a).

Such shortage might be explained by the up-to-date lack of understanding of the micro-foundation of dynamic capability development (Teece, 2007). Winter (2012) noted that understanding the role that individuals play at different organisational levels and the interaction between individuals and processes within organisation may help us to have better understanding of how routines and capabilities emerge within the firm and, therefore, achieve better understanding of the micro-foundation of DC.

For example, existing literature paid more attention to how rigidity or flexibility of formal and informal coordination processes may constrain or enable managerial action (Eisenhardt and Martin, 2000, Dierickx and Cool, 1989), but the role of the individual and group of managers and their interaction with such routines is still in black box (Winter, 2012).

Although managers are supposed to play a critical role in handling activities that emerge as patterns of resource management, only a few examples are available in support of such an argument, demonstrating their role as a managerial capacity to create the most

effective resource portfolio (Augier and Teece, 2009, Martin, 2010, Mintzberg and Waters, 1982). This is done by conducting processes of resource acquisition, accumulation and divestment decisions of strategically valuable resources (Makadok, 2001, Moliterno and Wiersema, 2007), skilful resource bundling to transform organisational capabilities within discontinuous environmental changes (Sirmon et al., 2007), having managerial beliefs about organisational path (Pablo et al., 2007, Rindova and Kotha, 2001) and, finally, embarking on merger or acquisition (Eisenhardt and Martin, 2000). Managerial interaction with and during such processes could possibly provide us with better understanding of the origin of such routines and their potential influence on their evolutionary path.

Additionally, on the basis that DC are embedded in actions, alongside the view that managerial actions are supposed to be intertwined with organisational processes suggests that managers either influence or are influenced by those processes. Therefore, it is suggested from a dynamic capability perspective that DCs are best understood within existing organisational activities and routines by discovering the evolution of their path since they are built-in and not bought in the market (Makadok, 2001).

By the same token, Castanias and Helfat (1991) suggest an important role for managers by including managerial cognition and social capital in drawing implications for RBV. They argue that the combination of top management skills and firm assets and capabilities can potentially generate rent for the firm (Castanias and Helfat, 2001).

In addition to this, it is argued that exploring the role of managers using dynamic capability lenses involves the study of managerial strategic intent as individuals and collectively at strategic level (Martin, 2010). In his grounded multiple case study, Martin (2010) examined, in depth, the role of executive leadership groups at a multi-business organisation that operates in a high velocity changing software industry.

The study explored the relationship between general managers' characteristics of business units and firm performance. Although, no previous studies had embarked on direct examination of this relationship, findings of this study highlighted the important aspect of the set of general managers as a functional source of dynamic managerial capabilities in multi-business organisations. It concludes that general managers become an important element for firm fit when they operate in an *episodic team* (Martin, 2010).

Such conceptualisation of the managerial role within a highly dynamic environment asserts its critical role in achieving better evolutionary fitness of the firm. The origin of such a role was discovered at business unit level and translates into overall greater performance for the corporate. Dynamic managerial role was illustrated by collective action of the mangers to reallocate pre-planned operational activities. Collective action per se across businesses reflects a substantial level of managerial motivation and capacity to pursue interdependent activity, which results in what Martin (2010) describes *novel collective resource action*.

We can synthesise from this study and previous examples, that general managers acting under the capacity of dynamic managerial capability can possibly enhance the variation-selection-retention patterns in multi-business organisations (Martin, 2010). This study opened the black box of executive leadership groups and found that executive teams can collectively - as individuals - play an essential role in sensing and seizing emergent product market opportunities and reconfiguration of resources.

The implication of the managerial role represented by managerial ability to adapt the firm to changing environments by constant reconfiguration of its resources and routines is obvious in leading the firm to renew its economic value (Helfat and Peteraf, 2003, Teece, 2007, Zollo et al., 2002) and, hence, considered a dynamic managerial capability (DMC) (Martin, 2010).

DMC embraces the notion that managerial intent influences organisational outcomes (Augier and Teece, 2009). Based on the review of the above few studies, managerial ability to deploy and redeploy firm's resources to adapt to changing environment can be considered a dynamic capability (DC) (Teece et al., 1997, Winter, 2003). Managers are perceived to influence the development of a firm's DC in many ways (Adner and Helfat, 2003) and manage it by the way in which they alter, expand and reconfigure strategic assets of the firm (Eisenhardt and Martin, 2000, Teece et al., 1997, Moliterno and Wiersema, 2007).

Teece's (2007) work asserts sensing of new opportunities and seizing them as two explicit patterns of dynamic capabilities that are supposed to capture trajectories of new opportunities as they emerge. Sensing is understood from analytical systems and individual capacities when managers engage in activities such as scanning, learning, creation and interpretive activities that demand cognitive, evaluative and inferential skills through the organisation and its management. Seizing is about capturing the sensed opportunities by establishing new products, process or service. It entails investment decision, which commits resources, therefore is considered a more expensive function than sensing. Moreover, the two functions coexist as integrative activities inside a single organisation and demand managerial judgements that can be observed in investment decision-making skills.

Having the notion that DCs may emanate from a number of situations, and vary in timing and effects (Zahra et al., 2006), may allow us to conclude that DCs are an elusive and subtle construct that can be understood from DMC. This is because managerial agency, intentionality and discretionary, is a supposed potential source that influences the evolution of DC (Ambrosini and Bowman, 2009, Zahra et al., 2006).

Therefore, we may argue that managerial agency through sensing and seizing is contingent-variable that influences the evolution of DCs. This study focuses on the

managerial agency role as a construct that can be studied at upper level management. Therefore, the relationship between DCs and managerial agency of investment decisions of highly uncertain rare frequency events (Zollo and Winter, 2002), like acquisition decisions (Eisenhardt and Martin, 2000), can be explored during sensing and seizing of potential acquisition opportunities by top management teams to understand their role.

2.2.1 Micro foundations of Dynamic Capabilities

This subsection will address the critique of reviewed literature as described in the above sections about the absence of human conscious action from DC literature and build on the notion of dynamic managerial capability (DMC). Although this study is taking a different approach to cognitive and psychology studies to further explore DMC, it is important to address the above gap by the acknowledgement of the few available studies on the psychological foundation of dynamic capability.

Of central concern to strategy research is how do managers capture their opportunities and make investment decisions or, in other words, do sensing and seizing, where psychologists are explaining that by exploring the psychological processes of individuals as a foundation to sought answer (Powell et al., 2011)?

Gavetti (2005) criticises the neglect in current research of the role played by the coexistence of cognition and routine-based logics within organisational hierarchy on capability development. Therefore, this study address this gap by exploring sensing and seizing anchored at TMT, though it adopts a different approach to cognition.

Available literature that adopts cognition to understand DC highlights the importance of managerial cognition to capability development, especially at the early stages (Adner and Helfat, 2003), TMT cognition affects firms' responses to discontinuities (Eisenhardt and Martin, 2000) (Tripsas and Gavetti, 2000). However, such work does not explain

the mechanism by which cognitve and routines based behaviour interact (Gavetti, 2005).

The dynamic capability framework as advanced by Teece (2007) and perceived to build on the notion of routines from evolutionary economics views (Nelson and Winter, 1982) and deliberate learning (Zollo and Winter, 2002) remained silent on similar issues explained in the above two paragraphs (Powell et al., 2011). Such silence welcomed critique of other schools of thoughts in this regard and a special issue of Strategic Management Journal, 2011, was dedicated to addressing the psychological foundation of strategic management (Gavetti, 2005, Hodgkinson and Healey, 2011).

Because of the significance of cognitive and psychological foundation for corporate efficiency, it is argued that sensing and seizing as a foundational block of DC framework that helps the firm to *evolve* and *co-evolve* are still hidden or underexplored (Katkalo et al., 2010).

Evolutionary tradition explains organisational failure to adapt to radical change by attributing such failure to the local nature of learning processes and, to some extent, rigidity of organisational routines, according to Teece et al., (1994).

From a cognitive perspective, it is argued that managerial cognitive representation of strategic decision problems drives organisational search (Gavetti, 2005). In this case, we may argue that managerial cognitive representations of the external world are perceived to drive the accumulation of capabilities and influence managerial capacity to sense potential opportunities and threats. This argument complements the path-dependence based logic, the seeds of which are laid in evolutionary economics resulting in experiential learning.

Experiential learning focused the development of capability on routine based aspects, and therefore perceived it as a "*quasi automatic*" (Gavetti, 2005). A major criticism of

this approach is the fact that it dehumanises DC by neglecting cognition and organisational hierarchy and search processes (Gavetti and Levinthal, 2000, Gavetti, 2005).

Based on the above, choice based logics that may explain sensing and seizing are argued to be critical determinants of managerial choice and action, i.e. sensing and seizing, may be differentiated as cognitive and experiential (Gavetti and Levinthal, 2000).

Gavetti and Levinthal (2000) summarise existing literature on the cognitive aspect of change which mainly focuses on making sense of change as characterised by two features: forward looking logic of consequences of actions and backward thinking logic of experiences. Forward looking forms of thinking are based on individual beliefs of linkage between choices of actions and their consequences. Beliefs in this case are derived from a mental model about the world; thus, positive strength of the linkage between action and choice determines the choice of action.

Experiential wisdom, in contrast, is argued to gradually accumulate in the form of tacit knowledge as a result of either positive or negative reinforcement of prior experienced choices. Drawing from previous experience repertoire as a choice based logic means it is a backward looking logic, according to Gavetti (2005).

However, it is argued that although prior experiences can change individual belief about the relationship between actions and their outcomes, it is still not clear how cognition influences managerial choice through sensing and, therefore, action through seizing based on accumulated tacit knowledge that results from experiential learning (Hodgkinson and Healey, 2011).

This is believed to reside in managers' thoughts that represents the thinking process (Gavetti and Levinthal, 2000) as they face a dramatically changing environment. An

example of that is provided in Polaroid's illustration of executive cognitive maladaptation. Executives were reluctant to change their search processes from instant imaging, which reflects their mental model of current business, to digital imaging leading to cognitive inertia (Tripsas and Gavetti, (2000) and maladaptive practices.

Contrary to that, in the same study managers at a lower level of organisational hierarchy who were closer to the industry managed to defreeze their cognitive inertia, which demonstrates the ability to develop new representations of the new world that helped them to accommodate arriving change (ibid). Such adaptive behaviour reflects managerial competency to unlearn what they had learned and re-learn as an adaptive mechanism (Fiol and Lyles, 1985, Nystrom and Starbuck, 1984, Starbuck, 1983).

An explanation of such discrepancy between the two layers of managers may be explained by the *"decision rule"* (Cyert and March, 1992). It is argued that decisions that were previously experienced to lead the firm to a preferable state will, most likely, be again made for future choices. Such a rule illustrates the simplified representation of the world which composes the mental models that guide managerial selection of choices. This explains why organisations are perceived as adaptive systems as they learn from their experience.

Based on the above, the role of cognition in explaining organisational inertia relies on historically accumulated experience and associated affections that shape managerial beliefs rather than current knowledge of the environment (Kiesler and Sproull, 1982, Tripsas and Gavetti, 2000).

Psychological prospect using Teece's (2007) framework of DCs illuminates the role of less deliberative processes in a firm's adaptability within its changing environment, according to Hodgkinson and Healey (2011). In their study, they attribute adaptability of the firm to the capacity of individuals and groups using intuitive processes to connect

their cold rational and hot emotional cognition during sensing, seizing and transformations.

Based on that, underlying assumptions of managerial adaptive ability to changes within their environment involves interaction between *reflective* and *reflexive* processes which is argued to be more complex than what strategy research suggests (Hodgkinson and Healey, 2011).

This is an important highlight of potential sources to overcome cognitive inertia as an antecedent to strategic inertia and capability trap which are referred to in core competence and capability literature (Eisenhardt and Martin, 2000, Prahalad and Hamel, 1990). In other words, Hodgkinson and Healey's (2011) work accentuates the importance of less deliberative cognitive processes to update managerial cognitive maps in response to changing environment as a critical part of managerial sensing capability. Hence, effective sensing demands more balanced exchange between reflective responses to discontinuous change and reflexive reactions.

Hodgkinson and Healy (2011) emphasise the need - after the Polaroid illustration of *cognitive blind spot* and *strategic inertia* - to re-evaluate competing interpretations of strategic novel events within organisations by encouraging a psychologically safe learning environment to take account of affective signals and intuitive cognitions in addition to rational thinking.

Studies in this area acknowledge reflexive cognition (emotions) as an integral part of cognition, informing reasoning, learning, decision-making and action, unlike related strategic management models which ignore the role of emotions in favour of rational analytical models as a source of judgement for managerial adaptability (ibid).

Within a psychological context, DC, in terms of sensing as a capacity of shaping opportunities and threats (Teece et al., 1997), is argued to be a reflexive process (Hodgkinson and Healey, 2011). Therefore, sensing is defined as the ability of the

manager to reach effective judgement on potential opportunities and threats based on formal analysis. However, it is argued that such judgement is not merely the result of rational analytical thinking, but is a result of a dual process (ibid) that is complemented by using skills to cut through enormous amounts of gathered information on strategic issues.

Effective judgement skills using emotional aspects complement managerial inability to synthesise, depending on analytical models only due to their inherited inefficiency because of bounded rationality (Mintzberg, 1994).

For example, when a manager uses intuition as an integrated part of their analytical processes guided by their "gut reactions" and analogical reasoning rather than by numbers (Hodgkinson and Healey, 2011). Intuition is an elusive term (Elbanna, 2006). It is associated with incremental adaptations due to an intermittent knowledge of the situation faced by the doer (Eisenhardt and Zbaracki, 1992) or by having a hunch or strong feeling about a situation before its occurrence, as in Elbanna's (2006) summary of research findings[1]. It relies on judgement, experience and gut feelings (Khatri and Ng, 2000).

Hodgkinson and Healey (2011) explain why and how intuition can be part of sensing capability. Intuition is symbolised as reservoir of large quantities of tacit knowledge that save executives from time constraints when thinking strategic events. They suggested several ways to incorporate it into sensing capability, for example, by reconfiguring award systems to incentivise individual expertise which relies on experience rather than solely on an analytical tool, and configuration of decision-making units to incorporate a mix of expertise with analytical and intuitive cognitive styles.

Within the above context, seizing as a capacity to evaluate, select and commit resources to new opportunities as managers sense them is basically the ability to change direction

---

[1] For exact reference, see Elbanna (2006) page (10)

of existing strategies through new resource allocations (Teece et al., 1997). However, it is restricted by two constraints as it has to be preceded, according to Teece et al's. framework, by rational sensing and *dysfunctional fixation* that results from the escalation of resource commitment (Hodgkinson and Healey, 2011) that is supposedly path dependent.

Therefore, Hodgkinson and Healey (2011), suggest that cognitive assumptions which underlie seizing capability can foster different liberating mechanisms, such as "self-regulation" of upper management to overcome dysfunctional fixation to demonstrate seizing as a new action.

Empirics on self-regulating mechanism include cases when managers de-escalate commitment to ineffective strategy in financial decision-making (Sivanathan et al., 2008). Applying self-regulation mechanism to DC may elaborate the underpinning assumptions of seizing as the managerial confidence level which endorses resource allocation as new opportunities arose based on strategic long-term objectives and suppresses the fear of self-justification as a self-defence mechanism of emotional engagement with past choices.

Lastly, the fundamental identity trap of the firm is identified from a cognitive perspective to constraint adaptive capacity to transform and reconfigure assets (Hodgkinson and Healey, 2011). Likewise, self-regulating effect is an advised mechanism to overcome identity trap. However, the scale for this mechanism embraces the entire firm at all managerial levels, in contrast to seizing capability (ibid).

This debate indicates a shortage in current definitions of what dynamic capability is, and subsequently causes a lack of clear understanding as to what role managers have in the developing of dynamic capability.

Gavetti (2005) asserts the importance of cognitive and automatic search processes, paying attention to the role of capability hierarchy to address the incompleteness of

micro-foundation research on DC. However, in the next section a further discussion of DC using strategy processes and organisational capabilities might shed addition light to the current debate.

2.2.2 Strategy processes and Organisational Capabilities

The above debate on the origin of dynamic capabilities does not capture the associate attributes of strategy processes, such as social complexity which is a prominent feature of strategy process. In other words, the firm is envisaged as more than just a compilation of resources and capabilities of its individuals and, arguably, its routines (Katkalo et al., 2010).

 This is to say that the above literature is incomplete without a review of strategy process literature to understand social complexity as another potential determinant of resource allocation as a mechanism of organisational capability development. Findings of many studies on managerial interaction at different levels to determine the strategic context of the firm suggest it to be a political process about managers' internal competition for internal survivability through scarce resource allocation mechanisms (Burgelman, 1983a, Burgelman, 1991, Burgelman, 1994, Noda and Bower, 1996).

Hence, the socio-political aspect of managerial interaction that manifests itself by competing new initiatives among managers for scarce resource allocations implies an important social element which has the potential to influence the development of organisational strategy, capabilities and may contribute to our understanding of DC micro-foundation. However, the lack of studies on the influence of social complexity among TMT on the development of organisational capabilities using DMC underpins the rational for this study to explore such influence. Consequently, this study aims to understand the social dynamics between executives in order to understand how their role contributes to the development of new and dynamic capabilities of the firm.

The evolutionary perspective on firm adaptive processes is one of many other perspectives that have vested interest in exploring firm adaptation. However, it is a flexible approach which allows researchers to be selective in deciding which component is used to explore firm development. Search and selection processes among other processes within the evolutionary model acknowledge the interaction between managers at different hierarchical levels of the firm, as highlighted by cognitive studies (Gavetti, 2005). The consequence of such interaction is reflected by different organisational processes, such as resource allocations.

Many studies looked at the path and rate of different innovative measures which are believed to influence capability development and any subsequent growth of the firm (Barnett and Burgelman, 1996). Resource allocation, as a political process, is argued to play a critical role in the development of organisational capabilities that shapes the strategic context of the firm (Burgelman, 1996). Having the notion of resource scarcity, as mentioned previously, and capability development explains the emerging tension in the relationship at different hierarchical levels, e.g. between top and middle managers and, therefore, influences their interaction.

Few studies summarise existing literature in this regard and provide diverse examples which illustrate sources of social complexity when decision-making, such as launching new strategic initiatives (Burgelman, 1983a, Garud and Ven, 1992), strategic search and organisational learning (Makadok and Walker, 1996, Doz, 1996), and selection processes (Ingram, 1996, Singh and Mitchell, 1996, Noda and Bower, 1996). A common factor in this vein of research is managerial decision-making about resource allocations and subsequent strategic commitment that could lead to a tense and possibly conflicted decision-making process.

Having the notion of capabilities and evolving organisational routines make the above mentioned studies good examples of how previous adaptive initiatives can constrain

managerial choices on internal venturing for resources and, therefore, hinder adaptive behaviour to a new world.

Internal constraints such as the use of organisational routines and the effect of initial conditions on the interaction between organisational partners, as in the case of strategic alliances, can limit managerial discretion in resource allocation which, according to Doz (1996), hampers firm adaptability.

Burgelman's (1996) exploration of how "Intel Company" transformed its business from memory to microcomputers suggests that the firm sustained its survival because of redeployment of its old distinctive competencies into a new competency area which was reflected by renewing its product-market strategies to sustain fit within the changing environment. However, the key point in the case of Intel's transformation process is attributed to middle managers at strategic business units who initiated internal selection processes using resource allocation mechanism. This implies that Intel's adaptation evolved endogenously, since internal selection substituted external selection. This highlights the substantial role of resource allocation and reallocation as a façade of managerial sensing of new opportunities and seizing as a new investment actions and has enduring effect on a firm's survivability because it is about strategic decisions (Mintzberg et al., 1976).

Also, having the notion of organisational learning by Zollo and Winter (2002), where resource allocation is invested in improving *the action-performance linkages* that is understood collectively by members of the firm, could limit managerial discretion which leads to an expensive opportunity cost. Since learning in this case accounts for an experience accumulation process which demands investing in static events that lead to good performance and link incentives to search, only once such performance declines, instead of directing resource investment to dynamic capabilities and the creation of opportunities. Examples of such investment may be the establishment of specialised

departments in learning particular processes that lead to accumulate a specific experience, the creation of merger and acquisition teams, hiring a TQM expert and briefing meetings in complex projects. In addition to the direct cost which associates such initiatives, opportunity cost as a result of sacrificing time could be invested in working on active projects. Hence, given resource allocations reflect managerial commitment to invest in activities of deliberate and cognitive learning depending on the task (Zollo and Winter, 2002).

Another study by Noda and Bower (1996) emphasises the influence of corporate context which reflects top management strategic intent on shaping strategic initiatives by middle managers at business units and subsequently, on the development of new businesses in firms. Similarly, resource allocation as a consequence of top management escalation or de-escalation of commitment may influence strategy making in large complex firms. Strategic renewal has the potential to overcome the previously described inertial sources and forces which are embedded in organisational strategy and amend the gap between eroding core competencies and emergent bases of competitive advantage (Burgelman, 1991).

In the same vein of research strategy-making as a managerial activity could be explored as a multilevel process to put more emphasis on managerial intervention with emergent strategy and, therefore, guide it to its preferable direction. It is argued that strategic initiatives emerge, initially, from the managerial activities of front line and middle managers because of their specialised knowledge, as in the example of technology industries (Burgelman, 1983b, Burgelman, 1996, Burgelman, 1988, Burgelman, 1994).

This reference to organisational hierarchy suggests a capability hierarchy as well (Winter, 2003). Such hierarchy produces a tense relationship between upper and middle level management when setting strategic priorities that are translated by resource

allocation decisions, as in the example of the Intel study where strategic change was initiated by middle managers at strategic business units (Burgelman, 1996).

Finally, the Bower-Burgelman (B-B) process model of strategy-making within large complex organisations may shed a light on the significance of managerial activity on strategy (Barnett and Burgelman, 1996) and, therefore, on capability development. It is argued that B-B framework illustrates strategy-making process as a complex emergent act from cognitive and behavioural processes. Nevertheless, the social context of decision- making reflects another dimension of complexity which demands further exploration that promises to enrich our understanding of capability development.

Available literature on managerial interaction at different levels explains it as a decision-making prospect. It is divided into three main phases: *start-up or identification phase, "developmental phase"* and *finalisation or selection phase* (Mintzberg, 1979) . The first two phases are more relevant to this discussion and therefore will be further explained in view of the B-B process model.

Start-up phase is about problem recognition, which is a diagnostic routine that involves strategic sensing capability. It is mainly about problem definition to initiate a decision-making process. This phase might be influenced by miscommunication of ill-defined market forces which is conveyed to top management at the upper end, according to the B-B process model, and contribute to the creating of a social dilemma (Barnett and Burgelman, 1996).

Development phase is about the search for information and development of alternatives (Mintzberg, 1979). It is the phase of communicating strategic initiatives which are provided by front line managers, who are usually specialists at the lower end and closer to industry. Strategic initiatives usually carry the seeds for change or alteration of the strategic context of the firm by making resource investment. Communicating such initiatives to top management is usually performed through middle managers who are

perceived to be more influenced by personal and emotional factors related to career development and face value, as explained by micro-foundation literature on DC.

This effect may result in information distortion which leads to a situation of asymmetrical information along the managerial hierarchy and will, inevitably, create nervousness in the relationship (Barnett and Burgelman, 1996). That is because information is seen as a reflection of the values, cognitive and social bases of the top management team; upper echelon (Hambrick and Mason, 1984) will inevitably influence the decision of resource investment, i.e. seizing.

The link between such views and organisational outcomes in terms of strategies and effectiveness is strongly claimed (Teece, 2007). Therefore, it is conceived to be a political process because it implies manipulation of existing context and structure by resource configuration processes according to the firm's current objectives that need to be realigned with proposed initiatives in case of novel change.

To conclude this section, a study by Floyd and Lane (2000) illustrates managerial role conflict as a result of the above described nervousness and tension. They argue that managerial roles at the multi-hierarchical levels of the firm change according to time horizon, information requirements and core values. Accordingly, diverse managerial perception across the above identified variables leads to role conflicts among managerial strategic roles reflecting the social complexity of strategic renewal. This is because Floyd and Lane's (2000) view of strategic renewal is broad enough to couple innovative social behaviour of managers with strategic renewal sub-processes to modify or change organisational core competencies based on new information, suggesting aligning controls with environmental dynamism as a mechanism to reduce role conflicts.

2.2.3 Top management Team and Dynamic Managerial Capabilities

As implied by the previous analysis of the literature, and contrary to population ecologists', views which stipulate that firms run themselves (Hannan and Freeman,

1977) or accept the limitation of managerial ability to act due to constraints and context within which managers do work as a de facto (Pearce et al., 2011) "*upper echelon*" (Hambrick and Mason, 1984), a perspective in macro-organisational research which targets a specific coalition group of the firm, namely top management team (TMT) (Pettigrew, 1992), is burdened by social complexity.

TMT is one of strategic management's research streams grounded in cognitive studies aiming to contribute to better understanding of behavioural strategy. Therefore, the study of strategy within this area of research is anchored at the level of individuals as opposed to strategic management studying strategy at firm, business unit or industry level. There appears to be a link between TMT research and DMC as one of dynamic capability micro-foundation research streams where individuals' and managerial judgement during sensing and seizing is the unit of analysis (Powell et al., 2011).

Intentionality of agent role differentiates upper echelon prospect from other ecological views of the firm (Pettigrew, 1992). Based on this, it is considered one of the constituent components of the micro-foundation of DC represented by TMT, as individuals and the effect of social interaction within and across components represented by their social interaction effect is supposed to contribute to the emergence of DMC as a collective construct that provides definition to DC micro-foundation (Felin et al., 2012).

For research purposes, during the mid-80s and 90s upper echelon emphasised observable managerial characteristics as indicators e.g., demographic factors. Demography is a function of factors which represents basic attributes such as age, race, sex, educational level, and length of service or residence which were used as explanatory variables to explain links between top team characteristics, managerial discretion and corporate strategies, firm performance, innovation, corporate change as in the case of diversification (Pfeffer, 1983 cited in Pettigrew, 1992).

Evidence on TMT composition, structure and decision processes was sought on antecedents of the consensus-performance relationship, nevertheless, it remains ambivalent (Priem, 1990). On one hand, some studies suggest a positive relationship between TMT consensus variables: consensus on goals, competitive methods and environmental perceptions and firm performance (Bourgeois, 1980). On the other hand, diversity of TMT on goals and the subsequent social complexity and perceived environmental uncertainty is positively related to firm performance (Bourgeois, 1985).

Notwithstanding, the significant role of TMT remained largely undiminished for research using multiple lenses. Using DC lenses which builds on RBV assumptions about managerial role in achieving congruence between a firm's competencies and changing environment, conceptualises the role of TMT to be a dynamic managerial capability (DMC) (Adner and Helfat, 2003, Martin, 2010, Sirmon and Hitt, 2009).

Notwithstanding, there is a minimal theory which explain how firms manage resources to create value (Danneels, 2011, Sirmon et al., 2007). The link between TMT and DC provides a potential explanation. For example, it is argued that such a link resides in the potential capacity of TMT to create DC, since they are believed to provide a vision for processes which aim at shaping the evolution of organisational DC (Easterby-Smith et al., 2009).

For that reason, transformational characteristics of resources and capabilities are conceived to be, perhaps, influenced by managerial development and deployment of strategic assets of the firm based on managerial vision and feedback (Amit and Schoemaker, 1993).

Despite a scarcity in available studies that looked at TMT using DC lenses, Narayanan et al., (2009) suggest that top management teams initiate the process of DC by an act of

demonstration to middle management their willingness to reallocate resources in pursuit of creating firm capabilities.

Ambrosini et al., (2009) notice the role of top management perceptions of the environment and the need for change as a factor which triggers change in routines of resource utilisation or resource base configurations. However, it is argued that managerial perception of the environment does not necessary build on objective characteristics of the environment and thus TMT cognition is not the sole trigger of instigating change (ibid).

Given the significant role of TMT capability, particularly CEOs, in evaluating change and reconfiguring assets internally and externally, Teece (2012) suggests that TMT entrepreneurial and leadership skills in sensing, seizing and transformation of the strategic resource base of the firm are basic requirements to sustain DC. However, given the high debatable profile of DC micro-foundation and related managerial roles, Teece differentiates the required type of *entrepreneurial management* (Teece, 2012) for dynamic capability from any other related managerial activities.

Thus, *"Entrepreneurial management"* (Teece, 2012) is about facing change by discovering or sensing opportunities and challenges giving more emphasis to the process of how they address that. This appears to set an important direction for further research on TMT actions to explore *what* and *how* questions of TMT actions. Examples from existing literature on entrepreneurial management adopt managerial discretion as a factor that is believed to influence the entrepreneurial management of activities and thus intertwines managerial practices with firms' routines (Augier and Teece, 2009, Martin, 2010, Mintzberg and Waters, 1982). Therefore, managerial practices are best understood from a dynamic capability perspective within existing organisational activities and processes as in the case of acquisition, for example (Eisenhardt and Martin, 2000).

However, the difficulty of doing research in the area of entrepreneurial management as attributed to complex corporate history is such that Teece cautions on methodological issues by advocating more strenuous qualitative approaches.

Indeed, our understanding of how TMT capabilities produce change in configuration of firm's assets and core competencies remains limited (Kor and Mesko, 2012, Priem and Butler, 2001a, Sirmon and Hitt, 2009). For these reasons, Kor and Mesko (2012) emphasised the need to gain in-depth understanding of, on one hand, the mechanism by which DMC per se is configured and, on the other , how such DMC leads to reconfiguring a firm's assets base.

In response to such demand, their recent study used three managerial attributes that are believed to underpin DMC: human, social and cognitive capital (Adner and Helfat, 2003) to explore how such attributes configure DMC. It is proposed that the three aforementioned managerial attributes, which are intertwined, are linked to a firm's dominant logic, strategic priorities and choices.

In other words, three managerial attributes are key inputs to understanding how managers conceptualise their business and, therefore, make their choices about redeployment of critical resources. This linkage emphasises the influence of managerial attributes on how they interpret stimuli and information from the environment (Kor and Mesko, 2012).

However, in their study, Kor and Mesko (2012) paid more attention to the role of the CEO in reconfiguring DMC within TMT by mentoring, teaching, counselling and nurturing senior managers. They suggest that CEO flexible ability to utilise specialised and generic management skills may positively influence the team culture, social learning and integrate their specialised knowledge. This, in turn, is connected to the ability of the firm to adapt in accordance to changing environment.

In the same vein of research, managerial capacity to manipulate resource configuration is conceived to be the output of strategic decision-making which is usually taken by TMT (Hickson et al., 1986). This is compatible with Teece's (2007) notion of seizing as a decision to commit resource investment decisions. Seizing is a subsequent step to sensing potential entrepreneurial opportunities (Teece et al., 1997) being both referred to by Teece's (Teece, 2007) exploration and exploitation by TMT that translates into firm performance.

The root of the above perspective is laid down in the resource based views (RBV) (Prahalad and Hamel, 1990) which emphasise the direct effect of slack resources on managerial discretionary decisions that translates into actions and can create a tense decision-making process. By the same token, authority and control of TMT over resources to act effectively are all believed to reflect a dynamic managerial capability (Martin, 2010).

Nevertheless, in view of this slim literature (Kor and Mesko, 2012), our understanding of the interplay between the three managerial attributes in configuring dynamic managerial capabilities at the level of TMT remains short and obscured.

Thus, DMC anchored at TMT level helps to conceptualise the role of TMT as a DMC. This study will explore DMC at TMT level as the central unit of analysis. This is believed to contribute to the existing literature which is concerned with exploring the role of managerial agency in transforming and configuring resources and capabilities of the firm using DC lenses. This is expected to provide us with a theory that further elaborates managerial role as an internal influential factor that is believed to influence the evolution of DC within a firm as an endogenous source of change. Thus, this study has the potential to enhance our understanding of the micro-foundation of DC (Felin et al., 2012).

2.3   Social Interaction as Missing Link in Dynamic Managerial Capabilities

It seems clear from the reviewed literature in previous sections on dynamic capability, strategy processes and TMT that such literature builds on theoretical positions from cognition, human capital and social networks. Debating issues within the area of dynamic capability remains revolving around defining what a dynamic capability of the firm is? What are the components of DCs micro-foundation and how do their interactions influence the evolution of DC? This implies an appreciation of the conspicuous role of managerial agency on the development of DC as supported by the DMC available thin literature.

Notwithstanding, the limited scope of the debate on DC and the role of managers at executive level is dominated by two main logics, namely routine based as seeded in the evolutionary approach focusing on experiential learning (Nelson and Winter, 1982, Zollo and Winter, 2002) or cognitive approach focusing on less deliberative processes (Gavetti, 2005, Hodgkinson and Healey, 2011, Tripsas and Gavetti, 2000). Missing from this ensuing conversation appears to be the social complexity that features strategy process activities and underlies the collective act of executives, as described under section 2.1.4.

In support of the above argument, two interesting observations can be drawn from the above streams of literature. Organisations are not simply rational economic entities, but consist of multiple agents engaging in social interaction within their organisations as part of their strategy-making process activities (Burgelman, 1983a, Burgelman, 1988, Floyd and Lane, 2000). Another observation is that managerial social interaction from resource and capability perspective implies a context of knowledge creation and utilisation among managers, and between them and the environment by resource configuration to interact with their environment.

This context is not unique. Nonaka (2000) referred to it as the context of "*Ba*". It is defined as *"a shared context in which knowledge is shared, created and utilized"* (Nonaka et al., 2000). However, the role of "ba" as a context of social interaction in the development of dynamic capabilities and its potential influence on strategy processes using DC lenses remains obscured and unexplored. In other words, it is likely that TMT social interaction, having the inherited social complexity of strategy process activities, will influence the development of capabilities. By the same token, a well-developed Transactive Memory Systems (TMS) (Argote and Ren, 2012) within an organisation based on experience can provide an operative tool for TMT to interact within the above context of "ba".

Adopting a DMC prospect on managerial interaction during the handling of DC activities such as sensing of acquisitions provides a context for this study by potentially allowing the exploration of the possible influence of social complexity at the level of TMT as a missing link in the current state of DC micro-foundation theorising.

This can be justified by the fact that sensing which is inherently uncertain and most challenging to DMC involves socialisation of accumulated and experiential knowledge (Nonaka, 1994, Nonaka et al., 2000) among TMT members. The nature of TMT socialisation during the sensing phase aims at giving meaning to uncertain events by interpreting new information about potential opportunities as a collective endeavour. The outcome of this effort is believed to be newly created meanings and contexts using a team's existing and recalled knowledge.

This can be understood by the fact that such interaction which occurs in time and space is argued to transcend the physical place and real time of interaction (Nonaka et al., 2000). Having the concept of "ba" as a reference to reflect on team social interaction, especially during the sensing phase, strengthens the notion of shared context of not just

cognition, but action as well (ibid). Although existing knowledge on DMC is limited to cognition, the action aspect of TMT from DMC prospect is surprisingly neglected.

From another equally significant theoretical positioning, the element of action is a key concept to understanding social interaction among individuals within a certain context (Banton, 1965, Biddle and Thomas, 1966). Action as a behaviour is *"distinguished on the basis of it having been learned previously, its goal directedness, and its apparent voluntariness"*(Biddle and Thomas, 1966, P: 26). Such conceptualisation of action is grounded in a different theoretical positioning which is seldom used in strategic management orthodoxies on firm analyses in general and DC in particular. It is called role theory.

Broadly, role theory is concerned with explaining patterns of human characteristic behaviour (Biddle, 1986). Action as a behaviour under role theory reflects role performance or performance per se (Biddle and Thomas, 1966, P: 26) . The use of terminologies such as "role behaviour" and "behaviour pattern" or "role enactment" indicates the same sense. Action or role is used to analyse various forms of social systems. Expectations as norms, beliefs or preferences are perceived major generators of roles. They are learned through experience and people are aware of the expectations which they hold (ibid). Thus, this invites the adoption of certain research methods such as observation of role and interviews with individuals to report their own expectations and those of others which results in emergent relationships between interacting individuals.

The above theoretical approach to role emphasises the nature of people as social actors who learn behaviours appropriate to the positions they occupy in certain societal contexts (Solomon et al., 1985).

An equally significant argument based on the above literature indicates that social relationships are likely to arise during an encounter or interaction between individuals,

(Goffman, 1990). This might provide an avenue to explain sensing phase as a context of emerging social relationships between TMT members. In this case, face-to-face interaction or an encounter between individuals is defined as *"the reciprocal influence of individuals upon one another's actions when in one another's immediate physical presence"* (Goffman, 1990)

The concept of action or role seems promising to understand the influence of TMT social interaction on the decision-making of acquisitions during sensing phase with adoption of the above definitions. Understanding individual behaviour of team members during sensing phase will help to reveal team behaviour in terms of TMT action and interaction during sensing phase as a collective effort. This understanding affirms the collective nature of sensing phase as a pool of knowledge interaction.

Notwithstanding, the element of action or role is not novel to organisation studies within the field of strategic management. However, in spite of the use of action concept to explore socially constructed patterns of decisions and what it involves in consulting others, it is still scarce (Pescosolido, 1992). For example, the conception of firms as information processes and decision-making systems that are processed and enacted by managerial agency coping with a number of internal and external conflicts and politicised strategy process activities is not new, as seen from previous literature. The assumptions underlying such perception implies that the firm is an adaptive social entity where information is processed into knowledge (Cyert and March, 1992) that guides managerial choice and decision-making, bearing in mind its social complexity (Burgelman, 1983a).

The significance of social complexity within the context of this study, which can be captured in strategy process activity and decision-making, relates to the fact that it represents a source of costly imitation by the potential development and generation of

untradeable resources and capabilities that cannot be bought and sold (Barney, 2001b, P: 645).

In line with the internally conceptualisation of firm as elaborated above, two major studies are perceived to be greatly linked to this study. This is such as it focuses on the role of managerial agency using different theoretical positioning, in particular adopting the notion of action to explore the role of managerial agency.

Floyd and Lane (2000) categorised managerial agency, observed by Mintzberg during the 70s, and has become integrated into theoretical models of strategy, dividing the notion of role into ten specific roles distributed across the three managerial levels, (Floyd and Lane, 2000).

Accordingly, managerial roles at top management level are identified in terms of decision-making process involving ratifying, directing and recognising change by top management seniors (Floyd and Lane, 2000). Managerial roles at middle management level involve communicating information across different layers of management and finally responding to and confirming information at operation level of management. It can thus be argued that almost all identified managerial roles involve information processing and embarking on actions that facilitate change (ibid).

However, their study is focused on the role of non-senior managers; middle managers' role in strategy process as fuel for strategic renewal or implementation of deliberate strategy (Floyd and Lane, 2000). Managerial agency literature has paid little attention to the impact of TMT socialisation on bridging the gap between tacit and explicit knowledge (Nonaka, 1994, P: 20). Therefore, we can argue that existing relevant literature concerning managerial agency from social interaction prospect is scant.

Floyd and Lane (2000) summarise the theoretical positioning underpinning the above realm of research on the basis of organisational learning or general evolutionary theory.

It is, however, important to consider the limitation of this stream of literature being mainly restricted to exploring the role of middle manager strategic agency on strategy process using theories of organisational learning and general evolutionary.

Nonetheless, the significance of their work lies in the important contribution of their theoretical positions, borrowing from role theory and exchange prospect to understand such phenomenon given the important consequences of social interaction between managers on strategy process and the limitation of strategic management theories orthodoxies in explicating such role.

Indeed, their model provides empirical evidence which illustrates how managers create, transfer and coordinate knowledge as a process of inter-subjective social interaction between individuals, adopting Grant (1996b) and Nonaka's (1994) views on knowledge application respectively. They used strategic role conflict and exchange prospect to explore the role of interaction between individuals on developing ideas that might be formed originally in their minds, but need further development through management of social interaction (Nonaka, 1994). Their approach led to capturing the substance of managerial role as a reflection of accumulated knowledge and information that is communicated through their interaction at individual and group level.

An equally significant impact of the above approach also contributes to exploring knowledge development through social interaction among individuals as potential organisational capability. Moreover, the above approach espouses assumptions about organisational knowledge being socially constructed phenomenon that can be activated through the organisation of human resources, as explained under the section 2.1.2.1 (Kogut and Zander, 1992, Weick et al., 2005).

By the same token, Mantere (2008) builds on the same theoretical positioning which is imported by Floyd and Lane's study to strategy field, looking at the effect of role expectations within managerial agency. This work highlights the contradictory effect of

role expectations as enabler or constrainer of managerial strategic agency. However, this work, although rare, is not an exception within mainstream literature exploring the effect of social interaction on managerial agency since it focuses on role expectations at the level of middle managers strategic agency. Although it contributes to emerging literature in micro-strategy, its scope remains limited to middle managers.

The fact that social interaction encompass humanity (Elias, 2009 Chapter 2 social process) and influence individual psychological processes (Deutsch and Gerard, 1955) makes social processes and individual actions for research purposes inseparable. In conjunction with dynamic capability, TMT action and interaction during decision-making of acquisitions as a potential organisational capability can be explained by the use of role theory and social exchange.

The application of role theory strands (Banton, 1965, Biddle and Thomas, 1966, Jackson, 1972) and social exchange (Cropanzano and Mitchell, 2005, Emerson, 1976) to management research is not new. Examples involve using it as an approach to understand intangibles when it involves person-to-person encounters, as in service marketing research or expectations of reciprocity by management researchers which involve interdependence as a defining characteristic of social exchange (Cropanzano and Mitchell, 2005, Solomon et al., 1985, Molm, 1994).

Therefore, this study looks at the role of social patterns of interaction and, possibly, the potential effect of expectation among TMT on acquisition decision-making that is naturally uncertain. Given the importance of social interaction to learning (Grant, 1996b, Nonaka, 1994) the notion of experiential learning (Zollo and Winter, 2002) that builds on socialisation of organisational knowledge development using dynamic capability lenses (Teece et al., 1997), has the potential to provide us with a deep understanding of the mechanism by which TMT handle uncertainty during sensing phase as a system of social exchange among a group of senior managers.

This can be achieved by seeking an explanation of managerial patterns of interaction at the level of TMT during sensing phase. The focus will be on what senior executives do and the mechanism they have in place to make sense of potential opportunities that are highly uncertain, by the use of their experience and learning.

The use of role theory following Floyd and Lane's (2000) work and that of Mantere (Mantere, 2008) has the potential to extend incomplete micro-foundation literature on dynamic capability by exploring obscured TMT socialisation during decision-making. This in itself will explicate dynamic managerial capability by enhancing our understanding of agents' behaviour in the context of acquisition decision-making, identified by Eisenhardt and Martin (2000) as an organisational dynamic capability.

Whereas TMT is assumed among strategy practitioners to be the principal group engaged in micro activities of strategy, given that action and interaction is exhibited by individuals who are considered associated with micro-sociological orientation (Mantere, 2008), little attention is paid to managerial agency role at the level of TMT in the field of strategic management using dynamic capability lenses.

Indeed, TMT social interaction as a potential organisational capability remains an underexplored phenomenon which needs further exploration (Adner and Helfat, 2003). Building on a similar vein to the above work, this study intends to use the same theoretical positioning of Floyd and Lane (2000) and Mantere (2008) because it has the potential to provide us with a powerful explanation of managerial agency role during sensing phase.

In conclusion, by appreciating the conspicuous role of managerial agency on the development of organisation and dynamic capability remains incomplete in view of our lack of understanding of the effect of TMT social complexity on the process of DC development. This study is set to understand managerial role adopting Adner and Helfat's (2003) suggestion of three main attributes which underlay managerial studies -

human capital, social capital and cognitive. This study will focus on the exploration of social aspect of TMT representing the missing link in the micro foundation of DC.

This raises a question about the influence of the role of TMT social space, adopting internal perspective on the analyses of their performance during pre-acquisition decision-making process, with more emphasis on sensing phase which allows transparent exploration of managerial capabilities adopting a social constructionist approach by asking the following question:

How do patterns of social interactions support the dynamic managerial capabilities of top management teams?

Chapter three: Methodology

The purpose of this chapter is to explain the research paradigm of this study, methods of data collection and data analysis for the present research, in accordance to research question. It begins with a summary of the entire chapter. It then stars with the review of different paradigms within strategic management. The review takes into account the three interrelated elements of research paradigm which are ontology (the nature of reality); epistemology (the relationship between the researcher and the reality) and methodology (the method adopted to find out the reality) to conclude with a justification for the selection of interpretive/social constructivist stance as a philosophical foundation for this study.

The chapter then provides sections on research design with the possible transparent account of data analysis, research quality and research ethics to concludes with the limitation of research methodology.

3.1   Research Paradigm and Strategic Management

Research paradigm provides a conceptual framework for research studies to be conducted since it forms the fundamental levels of the research that guides the researcher as well (Perry, 1998). The significance of research paradigm is arguably important (Kuhn cited in Benton and Craib, 2001) as a foundation of research because it reveals research appropriateness in terms of applied approach to a particular inquiry (Guba and Lincoln, 1994).

According to Guba and Lincoln (1994, p:107) research paradigm is "*a set of basic beliefs that deals with ultimate or first principles. It represents a worldview that defines the nature of the 'world', the individual's place in it, and the range of relationships to that world and its parts*". Such basic beliefs are believed to explain the link between the

assumption which the researcher holds and the overall research efforts. Thus, given the purpose of this study, it lends itself to the constructionism /interpretivism paradigm using social constructivist approach. The other philosophical views are revised in view of their application to research within the field of strategic management.

Research interest in strategic management field is known to be mainly concerned with the relationship between the organisation and its environment as described in Chapter 2. However, strategic management as a relatively young field is argued to be more of an eclectic effort due to the absence of unifying paradigm of research effort within the field (Calori, 1998, Pettigrew et al., 2010). This can be further understood by expounding parallels between philosophy and organisation theory as reflected in strategic management field of research.

In essence, fundamental issues in strategic management research can be rooted in philosophy of science and social science argument about what compose truth and, therefore, underlay what considered to be an acceptable, publishable, sound argument as set by a community of audience (Phelan and Reynolds, 1996, Pratt, 2008). Therefore, theories of organisations can possibly be distinguished by their underlying assumptions which summarise their views on philosophy of science and theory of society to build assumptions which inevitably reflects various theories from a particular paradigm (Burrell and Morgan, 1979).

Philosophical assumptions which constitute a research paradigm are concerned with the grounds of knowledge and the nature of reality whereas the theory of society concerns assumptions about human nature which describes established relationships between human beings and their environment, or in other words between subject and object (Crotty, 2005).

Despite the critique to Burrell and Morgan's (1979) paradigms of social science for locking theories of organisation research in four main paradigms which are functionalism, interpretivism, radical humanism and radical structuralism, it is praised for the ease provision of quick and broad categorisation of a large number of existing research on organisational studies based on historical debate of sociological paradigms influencing organisational analysis (Deetz, 1996).

For a research study to be locked in any paradigm means to view the social world based upon defined assumptions, as previously mentioned, regarding the nature of science and society in pursuit of truth. Accordingly, such assumptions are arguably rooted in two dimensions which are subjective versus objective in science, and order versus conflict in society (Burrell and Morgan, 1979). This dichotomy within science and sociology concerning their views about acceptable knowledge and the nature of the world may explain the long persistent debate between qualitative and quantitative methodologies in organisation research today.

The major scientific paradigms used in the social sciences have been discussed by Burrell and Morgan (1979) and Easterby-Smith et al., (2012) and many other scholars. The table 1 below highlights main points in the on-going debate.

Positivism paradigm was the dominating research in strategic management field for decades (Bryman and Bell, 2003). On one hand, rational models which were developed during the sixties are argued to constitute the orthodoxy of strategy research (Knights and Morgan, 1991). They reflect the pragmatic and prescriptive nature of the field aiming to aid strategists to achieve above average rent by implementing a strategy which explains best findings from studying the link between firm and environment (Carlisle and McMillan, 2002).

Table 1: Research paradigms

Paradigm dimensions	Research paradigm		
	Positivism (objectivism)/Realism	Constructionism/ Interpretivism	Critical realism
Ontology (nature of reality)	*Reality of social phenomena and there meanings have an existence that is independent of social actors* (Bryman and Bell, 2003, P: P19)	Reality is created by people interpretation that is made up of names, concepts and meanings (Easterby-Smith et al., 2012, P: 23).	Reality exists independent from the mind, but it is also stratified into multiple layers (Benton and Craib, 2001, P:125)
Epistemology (ground of knowledge)	Objectivist: findings true by seeking regularities and causal relationships (Burrell and Morgan, 1979, P: 5)	Subjectivist: created findings. World is relativist; understood in varying degrees from individual actor's point of view within context (Benton and Craib, 2001, P: 161)	Combine positivism and interpretivism: social life is created by people's actions and has external impact on them (Easterby-Smith et al., 2012, P: 29)
Logic of inference	Deductive-inductive reasoning (McEvoy and Richards, 2006, P:68)	Inductive (Bryman and Bell, 2003, P: 25)	Retroductive (McEvoy and Richards, 2006, P: 71)
Strengths	Fast, economic, wide coverage, produce compelling conclusions (Easterby-Smith et al., 2012)	Flexible, good for theory generation, data collection less artificial (Easterby-Smith et al., 2012)	It maximises the strength of constructionism open ended and reduces the weaknesses of positivism (McEvoy and Richards, 2006, P: 71)
Weaknesses	Inflexible, artificial, not good for process and meaning and implication for action not obvious (Easterby-Smith et al., 2012)	Time consuming, analysis and interpretation are difficult, less credible to policy makers (Easterby-Smith et al., 2012)	

Source: adapted from Benton and Craib (2001), Burrell and Morgan (1979), Easterby-Smith et al (2012).

As a consequence, scientific status of rational models within strategic management for issue enacting, problem finding and solving are believed important. They all have to depend on the scientific theory building and testing which such models are based on. This is why rational models are also perceived to be an *explicit collective knowledge* (Calori, 1998) which have problems of agency when studying strategy since both are equally perceived organisational and individual phenomenon (Calori, 1998).

On the other hand, socio-political, and strategy as discourse emerged as a reaction to the domination of sixties rational models which lack the cognitive structure of the individual managers (Calori, 1998). Thus, strategy as a conversation between few

individuals interacting with each other in a network, coalition or a team is an approach that is believed by some scholars i.e. Foucalt and Mintzberg (ibid) to overcome the biases and limits of rational models. Given, the current high profile debate with regard to the two approaches, a review of the implication of each choice on strategy research findings and its underpinning philosophies is provided next.

The first part of the debate advocates the use of rational models which underlay prescriptive schools of strategy i.e. design, planning and positioning schools. Using Paradigm language, they are labelled *Newtonian- Cartesian strategy paradigm* (Carlisle and McMillan, 2002). They adopt the cause-effect link between firm and environment where firm level performance is the key dependent variable to explore competitive advantage having a varied number of independent variables depending on the area of research (ibid). Both variables are operationalized for quantitative measurement (Saunders et al., 2009).

As a result, the rational models inherent of the deductive reasoning of the functionalists and systems view of the firm from sociological organisation, economic theories and developed rational methods such as forecasting, planning SWOT analysis (Calori, 1998). Deductive reasoning is a style of reasoning which characterise the scientific research borrowed from natural sciences to produce a testable deductive argument where laws present the basis of sound explanation (Saunders et al., 2009) by virtue of *entailment* (Phelan and Reynolds, 1996).

This implies that research within strategic management field espousing deductive reasoning is value laden originally by prediction and hypothesis testing which build on accepted premises under the positivism and post positivism paradigms involving the use of quantitative rational methods and thus, accept the conclusions as true facts (Burrell and Morgan, 1979).

Positivism and post positivism are epistemological positions which encourage the use of natural science research approach in organisation and management studies which define the nature of knowledge that is produced adopting this position (Bryman and Bell, 2003). In respect of management research, this is to measure performance of organisations with tangible indicators examining or verifying theoretical accuracies of deduced relationships between firm and environment from existing prior-knowledge as accumulated within a particular relevant literature.

Ketchen et al., (2008) work revising the development of research methodology within strategic management summarised two milestones coined as firm vs. industry debate in relation to strategy performativity. As a consequence, the need for empirics explains the different use of research methods and techniques mainly underplayed by positivism and post positivism approach i.e. Rumelt use of large sample size and time series since the 70s adopting longitudinal or cross-section designs which commonly produced descriptive analysis, correlations and mean comparison as an inherited account for the field through the 90s up to date including path analysis, network analysis and structural modelling. Also, the effect of Porter's work on the development of research methods within the field enabling the reduction of large sets of data applying analysis techniques such as regression, multifactor and cluster analysis which simplified the manipulation of large data sets into groups and types to explore the effect of industry on firm performance.

Researcher under such paradigm operates with regards to researcher position as value free or hypothetic-deductive value which is known to describe axiological assumptions of the researcher aiming to avoid bias (Lee, 1999). In other words, the researcher is an independent agent from inquired phenomena and *"human interest should be irrelevant"* (Easterby-Smith et al., 2012).

That is because researchers under the positivism paradigm assume their world to be a detached objective reality as the case in physical science comprising its ontological stance which is labelled *realism* (Crotty, 2005). Researchers adopting realism ontology stand independently from identified variables of the study as their epistemological stance to know reality that exist outside the mind. This view can be traced back in Descartes efforts to reach true knowledge through ordering of thoughts in accordance with the deductive logic by division of body and intellect as his epistemology (Calori, 1998).

The implication of adopting above stance on research design is that positivist researcher plans a clear research design using pre-specified detailed designs i.e. laboratory experiment or field survey research anticipating problems before they occur. The nature of such design is believed to be best used to predict study outcomes that can be statistically generalised since it is context free (Lee, 1999). However, it comes with its strengths and weaknesses as illustrated previously in table 1.

Opponents of prescriptive schools of thoughts within strategic management who criticised 60s rational models 'calculative formal approach to strategy and strategy formulation-implementation dichotomy introduced descriptive schools of thoughts to begin with strategy formulation as a phenomena that can be explained by other concepts such as learning, power relations with developing interest in understanding the role of feelings and emotions in reasoning and decision making rather than rational models only (Calori, 1998). The implication of such development summarises the shift in research approach from orthodox models to socio-cognitive processes to discourse analysis in studying strategy (ibid).

The shift from the economists' rational approach as the only approach studying strategy to embrace behaviour and decision making from psychologists' prospect as well seems

to set a path for research design within strategic management to move from positivism only to other research designs i.e. subjectivism as Burrell and Morgan (1979) observe. Furthermore, issues related to unobservable key constructs from influential theories in strategic management such as RBV, agency theory and transaction cost have set a debate between different philosophical strands i.e. positivists and realists (Godfrey and Hill, 1995). This debate has resulted in many different philosophical stances trying to mind gaps between theoretical and empirical research by corroborating theoretical prediction with empirical evidence.

Of special interest to this study is the RBV theory because of its relevance to dynamic capability theory and sameness with regard to underlining assumptions of inability to observe main key constructs in the two theories. The whole explanatory power of this theory is believed to stand based upon correspondence between predictions from theory and observable reality for population of firms. This is thought to be managed by the ability to identify observable consequences of the unobservable as the first step. The next step is to check if such predictions have a correspondence in the empirical world (Godfrey and Hill, 1995). However, due to the complex nature of the firm as given by the RBV which corresponds to dynamic capability views of the firm being historical and deep that each firm is a unique entity, it is advised then, "*to view the firm as a natural laboratory in which theoretical propositions of the RBV are already being tested*"(Godfrey and Hill, 1995).

Applying the same logic to this study considering non-observable intangible resources due to being tacit i.e. experiential learning or socially embedded i.e. among TMT social interaction (Reed and Defillippi, 1990) makes it difficult to understand it through its working mechanism applying conventional research methods used in strategic management. Therefore, understanding TMT interaction as key influential construct during their make of uncertain decisions may possibly explain the obscure behavioural

aspect of pre-acquisition decision making patterns i.e. sensing by senior management. TMT views on decision making process of acquisitions are explored to understand this process using sensing and seizing as dynamic capability lenses.

Research methods of similar type of inquiry within strategic management field started with search for in-depth insight looking for specific observations applying case histories by Chandler for example before the large sample time series of longitudinal designs took over to become widely spread in the field as previously described under the positivism paradigm (Ketchen et al., 2008).

Research concerned with the central role of managerial agency, where this study is located, can possibly be captured in strategic management by a catalogue of approaches. For example, studying TMT cognitive styles producing creative management in different ways as rational thinkers, sensors who learn from past experience and intuitive individuals with interest in the role of feelings in understanding strategy (Calori, 1998).

Using paradigm language in organisation research fields, above research stream of such interest is located under the interpretive and radical humanist paradigms as opposed to the functional and radical structural paradigms. This means that organisations are perceived as a common sense constructs where reality and facts are socially constructed (Burrell and Morgan, 1979). The implication of such views on strategic management research categorise such studies to be either phenomenological oriented study or admit more concrete form of social organisation being real (Crotty, 2005).

In both cases, the purpose of such research is to gain deep understanding of the meanings that human actors attach to events within a specific context with appreciation to the role of researcher as part of knowledge production (Saunders et al., 2009). The argument in this case is measured by the strength of link between reason and conclusion being the inferred evidence. A strong link means that the argument is sound i.e. reliable

(Phelan and Reynolds, 1996). Below is a discussion of this study's specific paradigm and its associated methodologies and research methods.

3.1.1 The Interpretive Paradigm

Interpretive paradigm is focused on understanding, after Weber *Verstehen* (Crotty, 2005), the process by which individuals' create their social world as part of human science related studies. The assumptions of this paradigm characterise the features of this study. Among the different positions within this paradigm, this study espouses interpretive assumptions of social constructionist views. In the following paragraphs, this section will discuss basic assumptions of the paradigm with special attention to social constructivist position because of its adequacy to address the purpose of this study and therefore, accordingly adopted methodologies.

According to Burrell and Morgan (1979), the structure of the paradigm is distinguished by the degree of subjectivity. Similarities between interpretivists and functionalists in the realm of organisational studies can be reflected in both concerns with sociology of regulation. However, interpretivists focus on how social reality is meaningfully constructed and ordered from the point of views of involved actors which make it consistent with the purpose of this study (ibid). Contrary to that, they argue that functionalists focus on rational explanations of social affairs which reflect their regulative and objective views of the social world. Therefore, theories are constructed from independent observer of action which underlay positivism as described previously, whereas theories construed under the interpretive paradigm are produced from individual actor aiming at richer understanding.

Therefore, understanding is "*a defining characteristic of all theories located within the interpretive paradigm*" (Burrell and Morgan, 1979). It is originated to reflect dissatisfaction with the positivist explanation of society due to superficiality (Easterby-

Smith et al., 2012). Instead, meanings and understanding are sought to understand subjective experiences of individuals (Crotty, 2005).

The essence of this paradigm to organisation theorist is believed to confront the basic functionalist ontological problems with organisations as concrete, measurable and taken for granted real research phenomenon. At the same time, it confronts the quantitative rational models that are used by functionalists and its associated quantitative methods as basis of analysis (Burrell and Morgan, 1979, p:397).

Nominalist ontology is consistent with the assumptions of interpretive paradigm. Reality is socially constructed as emergent process from human consciousness or subjective experience (Talja et al., 2005). Also, inter-subjectively shared meanings and values to which the activities of individuals oriented are sought rather than the pursuit of pure objectivism universal laws (Burrell and Morgan, 1979).

The problematic nature of some unobservable key constructs in strategic management research urge the need for deep understanding based on its theoretical prediction rather than the direct measuring of its consequences (Godfrey and Hill, 1995, p:522) which justify the use of this paradigm to position this study within it as previously mentioned.

However, the researcher do not intend to dispute realist ontology that characterise functionalist views nor adopt it. But positivist epistemology and nomothetic methodology have limited potential to deal with issues of dynamic capability when situated in specific context against particular and potentially unpredictable human nature as dealt with in this study through the lens of experiential learning and embeddedness of knowledge.

In line with that, social constructionism is adopted because it has the potential to address the lack of our understanding of the complex nature of TMT role during sensing acquisitions and facilitates later interpretability of findings (Easterby-Smith et al., 2012).

It is a position that emphasises the ways which people adopt to make sense of the world through shared experiences between individual actors using language to construct their reality (ibid).

The use of this position in management research is thought to be best related to areas which are concerned with exploring the effect of human interaction on management and organisation concepts such as in marketing, information science and strategic management (Talja et al., 2005, Perry, 1998). Constructionism considers reality to be socially constructed phenomenon underscoring its subjectivist and naturalistic (Talja et al., 2005) particularities. From a social constructionism point of view, truth treated as construction which consign to a belief system held in a specific context because meaning is more important than measurement (ibid).

Social constructionism is similar to critical theory which is another position of interpretive paradigm that mediate the debatable reality of objective vs. subjective (Perry, 1998). Both positions assume that there are many realities, but it is different from classical realism which emphasises the issue of one reality and its complexity that requires triangulation of data to achieve understanding (ibid).

Perry (1998) argues that constructionism does not separate the researcher and object of research because reality is socially constructed and it is the part of knowledge a researcher has. However according to realists and critical theorists, reality does exist and separate from the researcher knowledge as it has been shaped over time (Mir and Watson, 2001). Therefore, constructionism is more appropriate to construct the reality and develop a theory through a dialogue between the researcher and respondents of the study, which is basic requirement of the present research.

The above assumptions underlay the meaning of research question and purpose which dictate the research methodology and selected methods to be purely qualitative.

Qualitative methodologies refer to research procedures which produce descriptive data: people's own written or spoken words and observable behaviour" (Bogdan and Taylor, 1975 ,P:4). Lee (1999) summarises the most cited references within strategic management research adopting qualitative design to be mainly grounded theory by Glaser and Strauss, and case study research design emphasised by protagonists such as Eisenhardt (1989b) and Yin (2009) respectively.

In this type of research, single or multiple case research can be real time or longitudinal and sample size of respondents can vary between nearly16-219 respondents (Lee, 1999). The role of the gatekeeper in identifying respondents in qualitative studies is acknowledged by most research methodology text book (Easterby-Smith et al., 2012).

Qualitative research is believed to be more flexible and in varying degrees compared to quantitative research with regard to research design (Saunders et al., 2009). This means that specifics of the design evolve as it progresses as experienced in this study. Indeed, flexibility is a matter of necessity to qualitative researcher especially given that the researcher usually enters the field without any preconceptions or specific hypothesis about the subject of the study rather than a broad knowledge of the topic. It entails a suspension of one's own beliefs and taken for granted assumptions to inquire everything from the prospect of actors.

Denzin and Lincoln (2000, P: 4) describe qualitative researchers as engaging, sometimes, in multiple research and interpretive practices to gain a deeper understanding of the phenomena they seek to understand. To launch a qualitative research in organisational settings could be achieved by a plethora of techniques including the use of case studies, interviews, ethnographic forms of research, focus groups, observations, writing diaries, visual methods for example photography, video

diaries. This study adopts case study which is adequate for theory building and therefore, discussed next.

3.2 Case study

Perry (1998) suggests that case study research should have a brief discussion on the research paradigm in the methodology chapter because it leads to selection of appropriate research strategy. Social constructivists, symbolic interactionism and critical realism, realism, all, support the use of case studies as described in the previous section for its comparative advantage for addressing individual actors, decision-making processes, historical and social context which serves the aim of this study (George and Bennett, 2005).

A case is *"a spatially and temporally delimited phenomenon observed at a single point in time or over some period of time* (Gerring, 2007). Hence, a case study is *"the intensive study of a single unit for the purpose of understanding a larger class of similar units (a population of cases)* (Gerring, 2007). As a methodology, it is *"based on interviews that are used in a postgraduate thesis involving a body of knowledge"* (Perry, 1998).

The methodology allows the investigation of a contemporary phenomenon within its real-life context when the boundaries between phenomenon and context are not clearly evident (Yin, 2009). With the research purpose in mind, case study is expected to help exploring how sensing is performed by TMT during the initial phase of decision making of potential acquisitions. This is expected to expand our understanding of the obscure social aspect of TMT adding to the slim literature on dynamic managerial capability.

The above definition of case study indicate that a case is composed of a valid argument within a specific context (time and space) studied by methods of evaluation. This is where epistemology and ontology of gained knowledge about the case fall in by

demarcating context of the phenomena to be studied in accordance with Yin (2009) description.

Case context is the "*setting in which discourse takes place*" (Phelan and Reynolds, 1996). It provides clues which help in interpreting evidences to build sound argument about inquired phenomena. Also, context and chosen method of study are believed to shape the source of information for any study or argument (Phelan and Reynolds, 1996).

In other words, *"the product of a good case study is insight"*(Berg, 2007, Gerring, 2007). Insight as defined by Willard Waller early in 1934 is "*the unknown quantity which has eluded students of scientific method. That is why the really great men of sociology had no "method". They had a method; it was the search for insight*" (Gerring, 2007).

The idea expressed in the above quotation, embodies the view that case study seeks "depth" instead of "breadth" of the phenomena which lay in the "*details*" and "*wholeness*" in order to reveal specific features of the event (ibid). Also, for the purpose of analysis, all the relevant information are often concentrated within the single case and the phenomena under investigation that is contained in a qualitative format (Gerring, 2007).

The practicality of case study methods makes it widely used since theoretical arguments are separable from methodological debates (George and Bennett, 2005). Therefore, case study approach applying quantitative or qualitative technique or even in combination of the two is becoming the choice of social scientist for different purposes e.g. to test theoretical prediction of a general model, to investigate causal mechanisms and to explain the features of a key case (Gerring, 2007). However, two determinant factors may guide the selection of research design and methods: the shape of evidence which

the researcher opt to collect and the state of current research in a particular field (Gerring, 2007).

Purposive case study (Saunders et al., 2009) for building theory (Eisenhardt, 1989b) provides a satisfactory answer for both questions. Gaining insight to further understand the nature of TMT interaction during sensing phase by exploring respondents views address the first point. Furthermore, Wang and Ahmed (2007) review of the current state of art in the DC area revealed that key studies adopt the case study approach as the main approach in the domain. This might be understood by the fact that micro-foundation of any research area is an exploratory effort that explore constructs and concepts rather than measurement of uncompleted knowledge which is the case with DC as can be synthesised from Felin et al., (2012)

Therefore, a case study composed of four embedded cases which count for four acquisition episodes espousing interpretivist/constructionist approach is classified to be, among others, a qualitative methodology that is selected for the purpose of gaining in-depth understanding across the four embedded cases (Easterby-Smith et al., 2012). The reason is related to the fact that the phenomena under investigation is mainly to understand complex social interaction as a façade of TMT decision making for acquisitions.

Sampling strategy or design represents the framework that include the number, type of cases and sample size (Onwuegbuzie and Leech, 2012). However, qualitative research is often criticised with lack of rigour (Guba, 1981) which is managed by being public and replicable (Guba and Lincoln, 1994) to judge the quality of a study (Coyne, 1997). *Method slurring* (Coyne, 1997) is a concern that is often voiced by some qualitative researchers due to lack of transparency. As a consequence to this frequent critique an open and detailed description of the different developmental stages of the study is

provided through the rest of the chapter. In the next paragraph, a transparent description in accordance with rigour imperatives in qualitative term is provided about sampling design.

3.3 Research design

This section provides a description of research design in term of sampling strategy, data collection, management, analysis and findings. Due to the assumed lack of rigour that characterise qualitative research in term of core methods of data collection and analysis that might have the potential to reflect on assessing quality of research findings (Symon and Cassell, 2012) a transparent account of the gradual development of this study is provided through the rest of this chapter.

3.3.1 Sampling strategy

This study adopts a progressive sampling strategy as in the grounded theory mode (Miles and Huberman, 1994). The sampling strategy is composed of two parts. The first part is about selection of case type and number. The second part will reveal the selection of respondents within the case (ibid).

3.3.2 Case type and number

Qualitative research often deals with a small number of cases to insure informative and relevance of information to main inquiry of study. Therefore, and as a result of the lack of exact research design at the beginning of the study, qualitative researcher encounters a number of challenges that are specific to this type of inquiry compared to quantitative research in terms of employed techniques to select number of cases, respondents and entering the field (Eisenhardt and Graebner, 2007, Saunders et al., 2009) which were amongst challenging issues that were experienced in this study.

A purposive sampling (Saunders et al., 2009) is the selected method to guide case selection as imposed by the research purpose. Acquisition set the context for case

selection having the purpose of the study. Therefore, a proper desk search was performed using different electronic data bases i.e. Thomson One Banker, ICC company house and Fame to identify and download a number of feasible companies using UK Standard Industrial Classification (SIC) of Economic Activities 2007 as a search guide. Fame was the selected data base because it was a simple and friendly search engine using SIC compared to the other two databases that could not serve all search criteria.

Inclusion search criteria to set initial boundaries of the case involves all performed acquisitions in the period 2004-2009 within the Yorkshire region, private and public sector, trading companies, universities and hospitals. Size was also a search criteria and this was measured in terms of the number of employees and turnover in accordance with HM Revenue figures.

Companies resulting from the search criteria were screened, reduced and cleansed based on the availability of contacts and online checking of suitability guided by the principle of purposive sampling. Out of the original list of companies, 30 were deemed fit for purpose and was analysed online with a view to familiarise with their business scope in terms of number of performed acquisitions and description of main business and to identify headquarters contacts.

Contacting potential recruits for the study was initially conducted by telephone in order to negotiate access to the target group of the study. Personal assistants (PA) of chief executive officers (CEO) of companies were my first contact points considering the difficulty to reach CEOs in the first instance. During the telephone conversation, I explained the aim of the study, duration of interview and request an audience with the CEOs. Following the initial telephone conversation I followed up with electronic emails to the PAs to further explain, albeit broadly, the research aims and duration of

interviews as per the telephone conversation. Follow up calls were placed in every weeks as a reminder until the first response was received.

At the same time, an access to a UK based merged large charity in London was granted through personal ties. A first interview with the Chief Financial Officer was performed to discuss two issues. The first issue was to get general information describing the context of the merger i.e. motivation, individuals involved, structure etc. The second issue was to negotiate possibility of access to the rest of executive board members. Parallel to that, telephone follow up on companies was still on going. However, negotiation of access with companies was ceased as soon as the first acceptance was granted.

Considering perceptions of individuals about the researcher and how they understand the purpose of the visit is believed to be another qualitative research challenge (Bogdan and Taylor, 1975). Therefore, the first face to face interview with the CEO was a general meeting in his Yorkshire based office to discuss the willingness of the company to participate in this study. The significance of rapport building with respondents and gaining their trust (Saunders et al., 2009) was achieved through clear articulation of research purpose, requirement and expectations of both sides from the first interview. Participation on the company side is defined by committing of individuals to provide access to people and supporting materials when needed. The total number of interviews could not be known ahead, but it was made clear that it will last through the next two years of the study. Instead, it was confirmed that each interview would last no more than 1 hour on average. Research ethics were discussed as well by verbally committing on my side to full anonymity of company name, individuals and submission of report of findings seeking their approval on disclosed data before publishing a thesis.

The successful meeting guided the further refinement of research design with regard to selecting the number of cases. As mentioned previously, it is a flexible strategy that develops progressively as it evolves. In view of further revision of the purpose of the study and in light of emerging circumstances, a decision was taken to further narrow the choice in order to gain one in-depth analysis of TMT action and interaction during the two phases of acquisition decision making process namely sensing and seizing.

The additional clarity of research purpose based on granted access lessened the search problem since negotiation for access ceased as soon as the first two acceptances as explained above were granted. It also helped to narrow the choice between the two companies in hand to exclude the merger and focus on acquisition as a result of initial meeting output with both entities.

The selection of case based on research purpose has its consequences also on the subsequent analysis of interviews. The choice to select one in-depth case study (Saunders et al., 2009) depended on several reasons. The selected case is an ideal case for acquisitions as described under case section due to the number of acquisitions, path development and peculiarity of TMT experience with acquisitions. A rich single case study have the potential to provide rich information about the phenomena to gain deep insights which is preferred to a comparison study that may provide less detailed explanation of the role of managers at TMT in decision making using dynamic capability lenses. A further reason concerns the variation in context between acquisitions and mergers although organisation studies consider them generally as synonymous rather than different (Johnson et al., 2011) Finally, the location of case being in Yorkshire compared to London is preferable given the limited research resources for a PhD thesis (Miles and Huberman, 1994).

3.3.3 Selection of respondents and sample size

The CEO was my gatekeeper to identify respondents in terms of their relatedness to the identified four acquisition episodes from a managerial prospect. Initially during the first interview with the CEO, three acquisition episodes were identified in retrospect which the company was happy to disclose. Identification of cases guided the number and the selection of respondents according to their involvement. As the data collection was progressing from mid-2010 until the write up stage in 2013, an additional fourth real time case was identified in 2011 along one of the interviews as illustrated in table 2 below. In total, this study is described as a single case study with four embedded cases according to Yin categorisation of cases (Eisenhardt and Graebner, 2007) and 19 interviews of mainly 6 executive members who compose the TMT.

Table 2: Demographic characteristics of cases and data collection

Characteristics	Acquisitions
Number of embedded cases	4
Number of respondents	14
Number of interviews	19
Retrospective research	Matyflica (2009) Tyrica (2006/2007)
Real time research	Sylica (2010/2011) Pylica (2011-2012)
Data collection Methods	**Mono method:** In- depth interviews: open end questions audio recording Archival document (Gant chart of Matyflica, Power point slides of business opportunities), online Web, Ground tour at manufacturing site of Tyrica.
Data analysis	Categorisation using Nvivo for coding Grounded approach alike using protocol analysis

However, the decision on suitable sample size was cut down from 19 to 6 respondents after the first few interviews. This was guided by the return to the research purpose as I

reflected back in view of the lack of a clear precise research question at the onset of the study. The research question becomes clearer as the interviews were progressing. That is to explore the action and interaction of TMT during sensing phase of acquisition decision making.

Initial coding of the first interviews with respondents revealed that they were engaged in integration phase of the four embedded cases mainly from middle level management at operational level with few executives including the CEO and executive managing director who is one of the TMT members. They all provided some interesting insights which further guided the narrowing of the sample size of respondents. The laddering technique (Easterby-Smith et al., 2012) during the interviews helped to identify all the key decision makers in the decision making of acquisitions within this company during initial stages of sensing.

Therefore, another request was made to the CEO for additional access to interview the other four members of the executives who composed the TMT. The aim of the interviews was to discuss with them the process by which they make sense of potential opportunities.

3.3.4 Data collection methods

Methods of data collection can be used equally by both streams of research designs either qualitative, quantitative or both in a mixed method research design depending on the purpose of study (Saunders et al., 2009). Interviews in qualitative research is considered to be a typical choice which aid the researcher to gain a deep level of understanding about interviewees' perspective with regards to the phenomena under investigation (King, 2004, Kvale, 1996). Therefore, it is believed to be a central technique of knowing because it has the potential to be situated in social accomplishment per se at the respondent's side within a local context. Localism position

of interviewing techniques is believed to be the nearest position which agree with purposive case study underpinned by interpretivist epistemology as well as applicability to organisation studies (Alvesson and Ashcraft, 2012).

The appropriateness of data collection method to epistemological stance is believed to be a prerequisite to the quality of work (ibid). Understanding being the purpose of this study, the emphasis is thus on the depth of respondents' views that is to be sought through talk to explore their social encounter as a produced situated interpretations of rather than reporting external events only. However, it is also acknowledged to be a complex social activity that demands intensive and sceptical reflection in order to achieve understanding (ibid, P: 255).

Understanding can be achieved using alternative methods as well. Other traditions such as ethnography advocates the use of observations including (none)-participants observations which imply collecting different set of data i.e. symbols, settings and observations in context. Interaction also is a modality that can be used to understand i.e. the use of visual metaphors (Easterby-Smith et al., 2012)

However, unstructured interviews are perhaps recommended when the agency of the interviewee is given primacy or slight privilege over the interviewer as suggested by different research traditions i.e. feminist tradition (Kelemen and Rumens, 2008). Indeed, the purpose of this study welcome the use of unstructured (open end) in-depth interviews as the main method to explore perceptions and opinions of individual members of TMT team members using their natural language (Easterby-Smith et al., 2012). A digital recording of face to face open ended interviews using the four acquisition cases to probe around the sensing and seizing was used as the principal data collection for this study.

Interview design, conduct of conversation, modes of transcription, management and analysis of vast amount of text are issues among others associated with the use of interviews as a modality for data collection; this will be discussed in the next few sections.

3.3.4.1 Unstructured interviews

The rational for the selection of open end interviews is justified by the lack of knowledge as identified gap on the role of TMT during acquisition decision making process using dynamic capability lenses. Contrary to the highly structured detailed interviews guided by positivism and post positivism which can be labelled "*speaking questionnaires*" seeking rigour, a very loose or unstructured interviews is advocated by interpretivist approaches searching for insights and richness which trade off rigour in positivist terms (Alvesson and Ashcraft, 2012). This is because gaining new insights by encountering a surprise can be possibly facilitated by the use of unstructured or low degree of structure.

However, collected data adopting a modified grounded approach in qualitative research generates meanings as given by actual actors which require interpretation by the researcher. Interpreting data from social sciences perspective implies a focus among many other things on the behaviour of individuals reflecting their decisions and actions within humanly created institutions (Gerring, 2007). Meanings, which are considered "*self-evident*" (Gerring, 2007) because they are drawn from actors who internalise these assumptions within their social context to reflect it in their actual doing.

The flexible nature of grounded approach makes it consistent with the epistemological assumption of this study and the use of consistent data collection methods. However, the use of open-ended questions is not an excuse to ignore the literature (Suddaby, 2006). Therefore, the open-ended questions of the interviews are coupled with figure 5

in chapter 4. This figure which provides a visual representation of existing formal reviews of different areas of relevant literature to dynamic capabilities provides the context for the grounded approach. Since this study is set to address incompleteness of micro-foundation empirical research, then it can benefit from the use of a modified grounded approach at a number of levels as explained below.

The adopted approach in this study is limited to a particular area of inquiry that is identified from the literature review and illustrated in figure 5 concerning TMT actual doing of sensing potential opportunities. With this against the background the purpose of literature review in this study is not to test hypothesis. The approach, instead, draws questions to underpin relevant substantive areas of literature e.g. psychology, strategy and experiential learning and dynamic capabilities that help to further understand the additional social complex nature of managerial action and interaction during sensing phase. It is believed that these processes are inherently uncertain and their influence on manager's interpretation of potential opportunities into acquisition decisions is potentially insightful. The understanding aims to gain insight from individuals' accounts in this regard as reflected from their daily reality based on respondents' experience.

The adoption of this approach using open-ended questions also allows exploring respondents' experience without imposition of the researcher's subjective value on the managers' account of their own experiences and actions as they recall them. The implication on the nature of collected interviews makes it more of a reflexive study since their accounts reflects on their individual mental schemas shaped by past encounters of with sensing episodes. This illustrates the consistency and coherence of data collection methods applying open-ended interviews to address the purpose of the study.

The first stage of interviewing as demarcated by the four acquisition episodes received a broad general questions to identify reasons, names of people involved, processes and status quo. Questions typically of what, who, why, where and when were used to ask about each episode with managers who were found to be involved in the integration phase of decision making of acquisitions. That was the first sign of the need to refine the sample of respondents to address decision makers of the four acquisition episodes before the decision could be made.

However, the complexity of such interviewing technique is admittedly time consuming, therefore, researchers are advised to refine their questions by selecting a line of questioning to further explore (Easterby-Smith et al., 2012). This initiated the second and final stage of interviewing which helped to identify additional relevant respondents after a few interviews. This set boundaries of the sample size and narrowed it to six executives who composed the TMT in the company.

A *"topic guide"* (Easterby-Smith et al., 2012) was used during the second stage to prepare a loose questions for the team as a reminder of uncovered questions by the end of the interview in order to avoid braking the flow during the conversation. Topic guide was developed using open-ended questions as well to preserve the personal nature of respondents' replies which seemed confidential at some points. Similarly to narratives, all interviews can possibly spread into a beginning, middle and end part of each interview (Alvesson and Ashcraft, 2012).

At the beginning of each interview, the opening part asked respondents to introduce themselves in terms of their qualification, previous experience with particular emphasis on acquisitions, and current functional role.

The middle part of each interview was guided by another simple set of open-ended questions. Questions in this part addressed the purpose of this study namely to

understand the dynamics of respondents during acquisition decision making i.e. how do you do acquisitions. This was followed by questions of a more personal nature exploring the role of each individual in identifying each acquisition episode of the four episodes, or during the dynamics once an acquisition is proposed to the team without any interruption from my side. Initially, answers suggesting the use of systematic and analytic use of existing organisational routines were provided.

Therefore, the use of *"a laddering technique"* (Easterby-Smith et al., 2012) facilitated the movement from descriptive narration of organisational routine and how it assisted the TMT members in finding acquisitions to explore retrospectively more of unobservable behaviour of team members during their interaction emphasising the social aspect of how they talk, contest and agree. The target of this stage is to explore the mechanism by which they make sense of potential opportunities outside the conventional bureaucratic form.

The identification of four acquisitions during access negotiations with the gatekeeper was very helpful in preparing for the interviews. Probing was focused on how respondents make sense of potential opportunity once identified using the example of the four identified cases. Therefore, simple questions that probed retrospectively around their interaction during the sensing phase of each of the four acquisitions were equally addressed to all respondents to reflect as an individual and as a member of team to explore the dynamics that individual play at the level of team interaction i.e. how did you discuss acquisition X? Who brought it? What was the first reaction like? Who was extremely in favour of X? Who was extremely against X? How did the CEO react? Why do you think he said/behaved or did that? Respondents openly described the typical interaction they went through in discussing potential opportunities and at great length. Illustrations were also equally requested from all respondents to further elaborate on a given perspective if provided by all members.

Such questions were addressed in a conversational mode to understand the social reality of theoretically derived constructs such as sensing as identified from dynamic capability literature only and suffer from lack of understanding or empirical evidence. This was sought from the constructs that the respondents used in their own language as a basis for their opinion and views about the inquired phenomena. In this case, a heavy description of how they perceived their interaction depending on their expectations from each other was the language which they used to unpack sensing.

Soon, I came to see the link between the interview simple brief questioning technique i.e. how you make sense of potential opportunities under uncertain circumstances and the notion of expectations and anticipation of others' expectations.

In this sense, the described relationships between team members, in view of new roles, in comparison to their functional positions reflecting different behaviour outside the conventional hierarchical order became the storyline, revealing the presence of precise notion of repetitive patterns of behaviour which were constant across the four acquisition episodes i.e. proposer and controller. Persistent related patterns of behaviour were labelled during analysis inductively from direct quotes of respondents. It revealed an implicit tacit social reciprocity based on expectations and ability to anticipate such expectations.

Therefore, the open-ended questions were mixed with few semi-structured questions asking individuals about how they initially approached the team with new opportunities and the reactions of other members using names to get further details describing behaviour per individual executive and whether it was meeting expectations of each respondent described in the below illustration

Interviewer: So, how did you discuss the French acquisition with the team in the UK?

Interviewee (EMD$_1$): *So the way I approach it always is to sow a seed, so not to go with the full mode proposal in the first instance but to say you know as we've been looking at sort of as you know in the past we've been looking at opportunities, we've tried a couple of occasions we haven't actually managed to deliver one but we've got another opportunity now which looks to be attractive. It looks to be in the right place, it looks to have the right products; it looks to have the scope to grow. So I'm going to take a look at it, where you sow the seed and you get people the chance to get used to the idea that you are going to be bringing in a proposal back on the table.*

Interviewer: when did that "sow a seed" happen?

Interviewee (EMD$_1$): *...That would have been before July, at the management meeting and we decided to think about it in August*

Interviewer: Can you please tell me in more details about that stage for instance did you discuss it first with the CEO or did you discuss it with a colleague? I mean what was your strategy to approach your team?

Interviewee (EMD$_1$): *Now we have a monthly exec meeting, and it is during the course of that meeting that I mentioned that this is what it was going to be. So it.....gets the board aware that I'm going to be coming back again and asking about an opportunity to acquire in France.*

Interviewer: So, what happened next? How did they receive it?

Interviewee (EMD$_1$): it was very much along the lines of okay…you know basically that's fine, you will understand what you are trying to do but will need some convincing. Right…

Interviewer: So, who was asking for convincing?

Interviewee (EMD$_1$): It was the CFO.

Interviewer: Ok…

Interviewee (EMD$_1$): He (CFO) played the role of Mr no very well but it's quite very interesting the way this turns out actually. But he played the role of Mr no quite well and particularly with regards to France.

Interviewer: Right, but what about GBDD?

Interviewee (EMD$_1$): GBDD is very open, he can see the business development of cases or if it sort of makes sense then he'll be reason to support it.

Interviewer: He was a bit sceptical though at the last time when I spoke to him, he was like "Oh it's okay but you know France I don't like French business" etc…

Interviewee (EMD$_1$): Yeah, that is the general attitude amongst certainly GBDD and CFO. Although strategically we know that France is one of the few markets that we can actually develop and grow into.

Interviewer: So you can see that both of them can go in the same track although they have different way of expressing their concerns?

Interviewee (EMD$_1$):Yeah.

Interviewer: How about EMD$_2$?

As seen from the above synopsis of an interview with one of the team executives, open questions were helpful in giving the respondents the freedom to describe what happened according to how they perceive their reality constructed through their actual interaction using their own words.

Three main themes describing a set of behaviour during sensing phase is evidenced in the above few lines describing one of the acquisitions. Such themes are selected indicative meaning of the need of team members to be *convinced* which shaped the behaviour of proposer. The role played by "Mr no" represented a characteristic pattern of challenging that is labelled after further clarification from other respondents as *controller*. Also, *general attitude among GBDD and the CFO* imply a notion of consistency among some characteristic patterns of behaviour. However, they were differentiated by the additional clarification sought about the particular behaviour when inquired about the use of their names. The first clue to differentiate the two behaviours where the second behaviour was later labelled differently as facilitator is the notion of openness as in the previous quotes.

Clarifications of initial claims or given claims by others were sought equally from all respondents during the interviews using helpful tactics as recommended by Alvesson and Ashcraft (2012) i.e. pausing during the interview when interesting point is said, asking for information about behaviour of other members to proposed acquisitions, or asking for counter-examples as in the example of controller who always resist proposed acquisitions.

The interview continued until the respondent nearly repeated the same information with each individual interviewee. The information collected from single interviews helped to prepare my mind set for the next interview although I would ask the same questions but with the intention to confirm (or otherwise) what was found from previous interviews. Nevertheless, the open mode questions were still addressed to them to highlight new findings as well as to confirm precedent interviews. This strategy helped me to reach the saturation point when new additional information was repeated (Guest et al., 2006).

Toward the latter part of the interview, I would ask the interviewees if they wished to add something else that was not covered in our conversation that they might consider as important revelation. Alternatively, I would sum up with most of the interesting insights in order to confirm my initial understanding of what had been said.

Finally, I would explain to them the upcoming processes after the interview i.e. transcription of recorded audios and analysis to emphasise the additional possible need for further clarification while the study progressed to stress the importance of future visits if needed and thank them for their genuine time and effort. I found they were happy to know how their information would be processed and the way it would be helpful to me as a PhD student.

Given that the interviews were recorded, the next step was to transform audio recording of collected information from respondents into analysable text (Miles and Huberman, 1994) which is discussed in the next paragraph.

3.3.5 Data management using CAQDAS

The use of computer aided qualitative data analysis (CAQDAS) is believed to make messy qualitative data (Symon and Cassell, 2012) more manageable (Saunders et al., 2009, Sinkovics and Alfoldi, 2012). It is believed that the use of CAQDAS can accommodate the non-linear process of interaction between qualitative data and to some extent the theoretical and conceptual backgrounds of quantitative research. It involves the use of software specifically designed for assisting researchers in data analysis (Sinkovics and Alfoldi, 2012). For example it can reduce analysis time, and for case studies it is believed that it helps in connecting arguments about interrelated events instead of statistical variations as elaborated by Miles and Huberman (1994).

However, the mechanistic use of CAQDAS and their subsequent limitations are also warned by most qualitative researchers. Therefore, the efficient use of CAQDAS

depends on the purpose of the study, epistemological assumptions and the logic of analysis which reflects the researcher's intentions. Clarity of such dimensions is believed to help qualitative researcher in deciding the reasons for using CAQDAS and therefore, select the most appropriate software (Miles and Huberman, 1994).

The purpose of the study being creativity and theory building to gain insights and rich description about the role of TMT interaction during sensing phase to make sense of potential opportunities in view of the lack of knowledge within current dynamic capability literature (Adner and Helfat, 2003, Martin, 2010) has guided the development of research methodology implying the adoption of mainly inductive logic of grounded theory (Glaser and Srauss, 1967, Suddaby, 2006). Inferences from data in its textual raw format to gain insights about TMT role during the decision making process of acquisitions is the main analytical technique which can be made directly from actors' perspective using their own personal words describing their views and opinions.

Thus, the adoption of interpretive approach which espouses social constructionist assumptions and demands human judgement on the side of researcher to interpret respondents' interpretations has found the role of CAQDAS to this study very limited being mono qualitative study (Easterby-Smith et al., 2012). Contrary to that, CAQDAS can be more efficient to the deductive approach as analytical technique using formal and structured analysis as advocated by Eisenhardt (1989b) and Yin (2009).

However, due to the lack of experience and training in using CAQDAS by the researcher during the first two years of research, initial basic reasons could be identified from reading related materials to guide the selection of potential CAQDAS software based on the above explained dimensions of this study i.e. transcribing interviews, filing cases within one master document as illustrated in figure 1 below, coding of key words

or segments of text for later retrieval, and storage of texts in an organised database (Miles and Huberman, 1994).
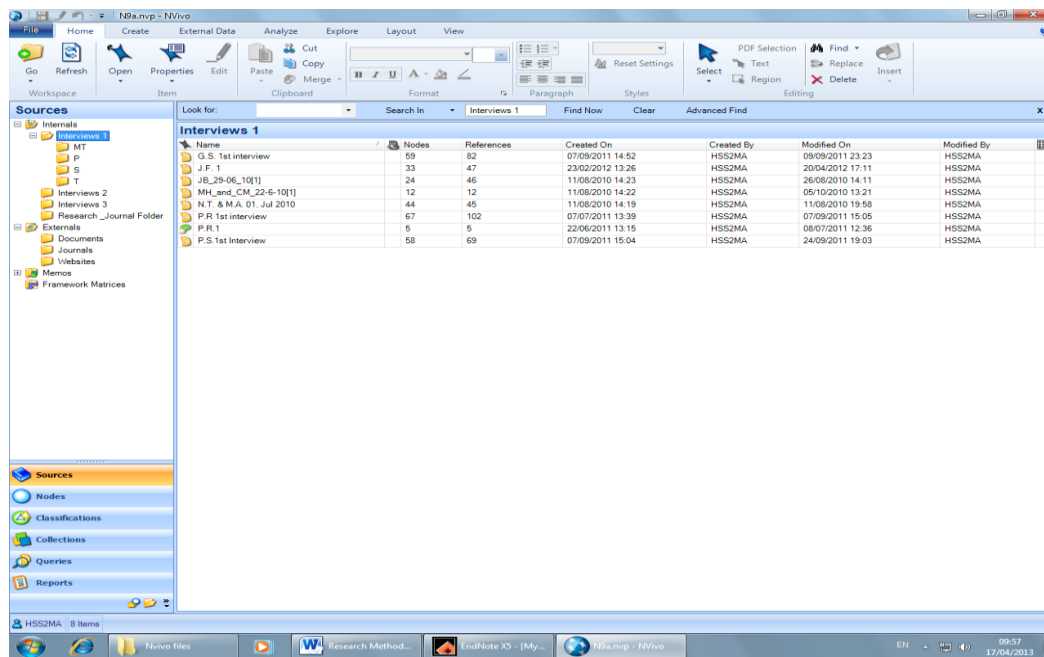
Figure 1: Management of qualitative data

Therefore, the use of software during literature review was not possible until the training was taken after the beginning of data collection which helped to support the day long training with hands on from actual interviews making it more efficient and realistic.

All 19 interviews were transcribed during the data collection period. The first few interviews were transcribed using MS word and imported to NVivo until I became more adept at using NVivo to transcribe most of the interviews.

The selection of NVivo as opposed to other CAQDAS software applications i.e. ATLAS.ti; HyperRESEARCH; MAXqda; etc. was based on the appropriateness of Nvivo to the previously mentioned dimensions of this study (Easterby-Smith et al., 2012). The decision was made after exchanging ideas with supervisors, colleagues who were involved in research using qualitative methodology and of course, these conversations contribute to make judgement on the appropriateness of the selected software.

One of the important dimensions of this study that determined the appropriateness of software is the methodological strategy being a single purposive case study using grounded approach method to analyse denaturalised data (Easterby-Smith et al., 2012). Another pragmatic reason for choosing between similar software such as NVivo and ATLAS.ti was based on availability of training courses and materials since both share similar features in terms of functionality being code-based software.

After the selection of appropriate CAQDAS software, the transcription process of interviews was the first performed function using the software. It is best described as semi-denaturalised data because the researcher was faithful to almost every utterance by all respondents although it is not pure naturalised data because I did not transcribe every pause, cough, or phonetics during the interview since the adoption of discourse analysis is excluded and as such does not imply any significant indication for the search of emerging themes seeking deeper understanding of the research phenomena because such sounds are meaningless in their significance to the adopted analytical strategy.

Thematic analysis of data using NVivo as a code-based software (Easterby-Smith et al., 2012) enables the researcher to make sense of the data as a first step to have initial conceptualisation of findings based on their given meanings by respondents as inductive as possible (Strauss and Corbin, 1998) searching for qualitative insights rather than quantitative insights (Easterby-Smith et al., 2012) that are deductively determined using template analysis (Nigel, 2012) searching for particular words or frequency count of categories using content analysis (Mayring, 2000).

Thus, coding was the second function performed using free and tree nodes whenever possible. All interviews were coded word by word, line by line using NVivo free nodes to conceptualise the data using respondents' own words as *first order coding* and illustrated in figure 2 below
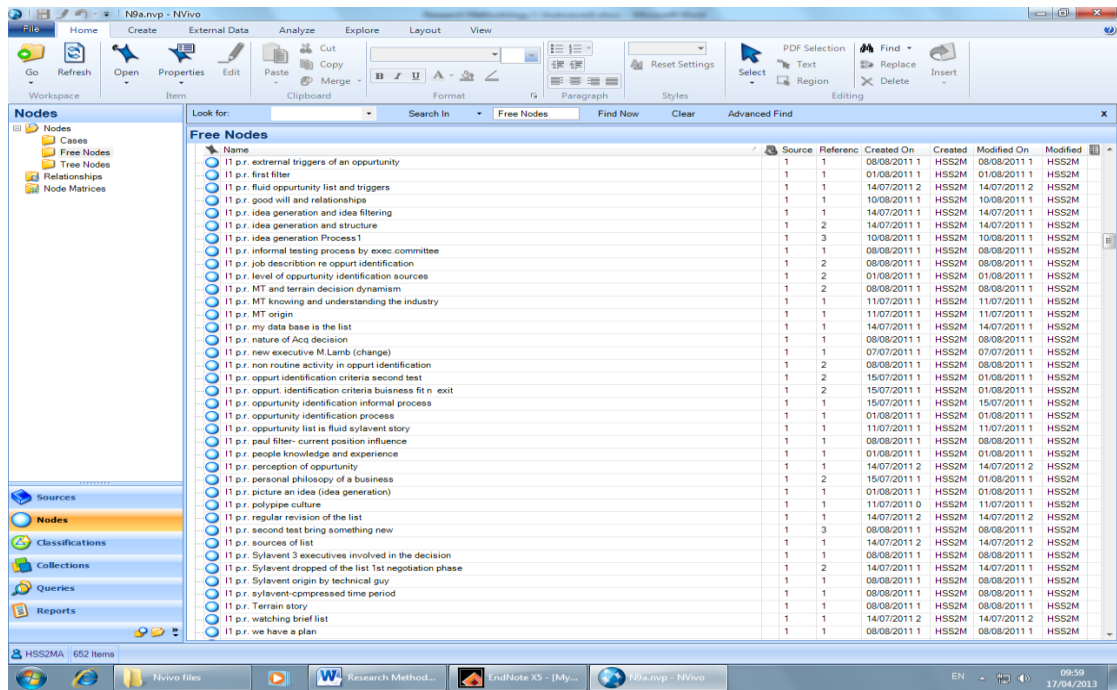
Figure 2: List of coding free nodes

Following that, the use of tree nodes helped to perform second order coding when similarities in giving meaning between different free nodes were observed to reveal the use of systematic and analytic tools to aid TMT to identify potential opportunities searching for acquisitions as part of decision making dynamics. For example, the generation of opportunity list is a *second order coding* which revealed a concept indicating the use of systematic and analytical lists that can be categorised as an explanation of what they do given respondents own words as illustrated in table 3 below

Table 3: Generation of opportunity list theme

Free nodes		Main theme	Explanation
Having a plan			
Road map	→	Generation of opportunity list (opportunity reservoir)	Structural approach to opportunity identification
Market segmentation			
Original financing plan			

The use of tree nodes was helpful in conceptualising a higher order of themes that were coded using first order codes as in the above example. Similar codes using respondents' expressions were grouped under one higher order as illustrated in figure 3 below.

Figure 3: Generation of second order concept from qualitative data using tree list coding of existing systematic and analytic approach

It is important however not to assume any linearity in the above mentioned sequences of analytical process. Coding, analysis and data collection were performed simultaneously as an iterative process which is a specific characterising feature of qualitative research (Sinkovics and Alfoldi, 2012).

It is also important to note the limitation of the mechanistic nature of software use in qualitative methodologies seeking qualitative insights taking human interpretation as a starting point to develop knowledge about social world which is committed to the notion of *verstehen* (Crotty, 2005)of subjective meanings and interpretations of actors

and researcher seeking the *Eureka* moment which the software fail to capture (Duberley and Cassell, 2012, Guba and Lincoln, 1994, Sinkovics and Alfoldi, 2012).

Therefore, the main findings of this study were the output of human judgement and reading between the lines rather than the direct and systematic use of software programme to make sense of explicit words. Implied meanings that can be sensed as repetitive patterns while the data collection process is in progress revealed implicit concepts that have some interesting insights which had the potential to explain the TMT role through their description of their actual behaviour while they try to make sense of potential opportunity as illustrated by the four acquisition episodes. The role of intuition is acknowledged in the process of knowledge creation which can apply to the role of interpretivist researcher (Calori, 1998, P: 289). The next section describes the process of data analysis and conceptualisation of findings of this study.

3.3.6 Data Analysis and conceptualisation of findings

As a matter of interest to this study is the focus on aspects that are unique, individual and qualitative (Crotty, 2005) which can explicate the complexity of managerial interaction during sensing phase at the level of top management teams.

Since strategic management research is believed to be theme-driven rather than theory or technique driven (Pettigrew et al., 2010), *grounded approach alike* (Suddaby, 2006) is indeed an adequate analytical strategy for such a purpose. It facilitates the search for themes and patterns because themes are perceived as initial problem framer if they met the double hurdle of embeddedness in the social science and the worlds of practice and policy (Pettigrew et al., 2010). The use of *grounded approach alike* is recommended for studies that seek *to make knowledge claims about how individuals interpret reality* (Suddaby, 2006).

This study adopts a social constructionist position to view the world and therefore, a constructionist grounded approach (Mills et al., 2006) seems an ideal choice for undertaking this study in terms of data collection and analysis. The use of such approach has a number of implications on the choice of grounded approach type and validity of findings.

The use of grounded approach in organisation studies proved to be a flexible tool. It can be designed to suit the purpose of the study as long as the researcher is aware of the need to be careful in the use of this approach applying its key operating procedures which involve the provision of information on how theoretical categories emerged, theoretical sampling proceeded and saturation level achieved (Locke, 1996).

A significant and relevant point to this study with regard to developing the necessary awareness of the adopted type of grounded approach is the location of agency. Despite the controversy between the co-author founders of grounded approach Glaser and Strauss (Glaser and Srauss, 1967), the defining line between the two versions remained blurred but with few decisive points.

For the purpose of this study, I located agency in human researcher for theory development by Strauss (Locke, 1996). This is illustrated during the data analysis and the later stages of data collection using laddering technique to probe for additional selective coding to fit in the substantive theories within DC micro-foundation.

The researcher's philosophical stance being a social constructionist using the above type of grounded approach is illustrated during the data collection by the use of open end interviews and abstaining from interrupting the flow of account by respondents while undertaking the interviews especially during the initial stages of data collection. Indeed,

this is consistent with Glaser's views on the use of neutral methods and data by researcher.

However, although grounded approach shares the phenomenological interest in subjective understanding from respondents' stories as raw data, the use of grounded approach after Strauss shapes such interest differently to elicit information on the social situation of respondents from their raw account (Suddaby, 2006). In this case, the interest is focused on the detailed retrospective description of TMT interaction during sensing phase to elicit information from their account which can fit DMC substantive theory instead of focusing on the stories themselves. This is operationalized during initial analysis of the interviews by performing open coding to respondents' accounts as analytical tool which helps to identify core category.

Accordingly, the modified use of grounded approach without the violation of its operating procedures allows the researcher to apply it on a limited scale during the data collection exploring how managerial action and interaction during sensing phase helps in identifying potential opportunities. With this in mind, the researcher engaged in a reconstruction of data during the remaining stages of analysis.

The application of modified grounded approach during data collection is operationalized by the use of a "think aloud" technique which allows managers to reflect on their past experience (Burgoyne and Hodgson, 1983). The interviews with the executives started initially by conducting general context interviews exploring manager's context of work, activities, backgrounds and roles. Common sense questions were used at this stage to ask informants for detailed description about the four acquisition episodes to find out how were they found? Who decided on them? How were they transformed from a potential opportunity to an acquisition decision among the six of them?

The use of "think aloud" helped to sustain the flow of the conversation especially at the initial stages of data collection without any interruption from the side of the researcher. In fact employing the think aloud technique was not limited to my subjects, it was a constant feature of this study. As the research evolved from a loose idea to a more concrete research endeavour I found myself reflecting on my own practice and theoretical assumptions and engaging in different learning episodes in order to make sense and interpret unfolding events. As concerns my subjects, I agreed a level of openness and trust with the mangers to think aloud and reflect intimately on their past experience which was endorsed by the CEO support and approval on confidential issues at the time of data collection with regard to acquisition episode at present. The same questions were equally addressed to the six managers in order to get different six accounts which reflect six different experiences about the same phenomena.

However, in spite of initial variations at the degree of openness between some individuals in giving their account, the process maintained itself once it is established to provide an effective tool to gain the required detailed and thick description of personal reflection and insights of past experience in action with regard to how they interpret potential opportunities into acquisition decision. Thus, managerial realm of experience is the basic unit of analysis and the description of their experience provided the data for further analysis by the researcher searching for meanings and patterns that can assimilate the diverse literature that underlie the framework of this study which is illustrated in figure 5, chapter four.

The above process is a reflective process where the mangers are engaged in describing their thoughts, assumptions, and feelings about what happen during the presentation meeting. The used research method of this study which is face to face open end interviews facilitates involving team members in a "*think aloud*" approach (Burgoyne

and Hodgson, 1983). This approach helps the manager to re-live episodes of previous experience while they engage on repetitive doing of the same pattern of activity at present time having the frequent doing of sensing potential opportunity.

Although it is a retrospective account of three acquisitions and one present account of a real time acquisition episode namely Pylica, the frequent practice of sensing acquisition opportunities seemed to have helped them to recall and describe a common expected patterns of behaviour of each manager. In essence, those patterns of behaviour reflect the team collective reaction to any potential opportunities as they engage in initial discussions. Probing common patterns of behaviour with each manager helped the researcher to locate several patterns of behaviour that had almost a persistent frequent presence across the four acquisition episodes which led to identifying the core category (Mills et al., 2006).

Core category is a central point of grounded theory approach (Mills et al., 2006). Indeed, the core category allows me to start to catch a particular story line to narrow down the additional data collection that is to follow next to the identification of core category and labelled in grounded approach theoretical sampling (Strauss and Corbin, 1998). However, for the purpose of this study, the use of laddering technique in addition to the think aloud substitutes the theoretical sampling of original grounded theory to gain more insight to the identified core category in pursuit of rich data and deep insights. Core category is known to integrate all of the various aspects of developed theory and is judged by the researcher in this study to be of high value to provide an explanation of TMT interaction during sensing phase with all its inherited complexity.

It is important to understand that the entire process of data collection and analysis is an iterative process since the identification of core category during analysis led to the collection of more data focusing on exploring that category. However, the researcher

became more directive in the later stages of data collection using "laddering technique" (Easterby-Smith et al., 2012) of managerial account to probe further information and to further explore different aspects of the identified core category. The use of laddering technique to probe managerial account helped to expand and stretch in depth the different composing elements of the core category which provided meanings explaining managers' actions during sensing phase.

Indeed, the use of laddering technique at this point was very effective to further explore overt behaviour of "who does what" and "why" engaging the six managers to describe what actually happened, by whom and what do they think about it. The description provided the data which was used again by the researcher to find plausible meanings that can further categorise the constituent elements of the core category.

Further purposes to the use of laddering technique was to corroborate emergent concepts of interactions as given by respondents e.g. individual's actions which reflects the presence of different roles and subsequent emergent new relationships between these concepts based on different individuals' reactions. Questioning using laddering technique provided the researcher with the necessary specific account to probe idiosyncratic behaviour as captured from the data to reconstruct the different characteristics of behaviour into different aspects of social roles. Eventually, the whole process of data collection and simultaneous analysis led to identifying the presence of five social roles during sensing phase.

The element of role was noticed by the researcher as a repetitive pattern across the four acquisition episodes due to respondents' expectations. Expectations are a main theme that explains managerial behaviour during their interaction rather than being restricted to what is given by their organisational role. In the subsequent interview to each interview, the researcher will ask other members about what was described in the

previous interview to get different views on what was thought to happen by one of the members.

The process of think aloud combined with laddering technique runs itself to encourage the flow of account and to interrupt the flow at later stages of data collection to further probe and corroborate main points from the inductive analysis of the interviews which are based on the descriptive account by each manger. However, this process of data collections has some inherited drawbacks which are pertinent to respondents who may forget or misunderstand a point (Bloor, 1983). This is minimised by the researcher deciding on to focus on selected categories and concepts which serve the purpose of this research from their account of their motives, intentions and beliefs.

Such account is corroborated by comparing their statements with the kind of activities they engage in and by asking other informants on the views of the respondent's account. It is worth mentioning that managers were interviewed independently without any sharing among them of what have been said in each interview.

At the same time as the social phenomenon was unfolding itself I found myself immersed in the social psychology literature with the view of furthering my own understanding of the unfolding role concept. As a result of this learning exercise I was able to differentiate human behaviour into its different components such as organisational role and social roles.

The combined use of talk aloud and laddering technique while managerial talk aloud reflecting on their experience during the recorded interviews led to develop a level of confidence in capturing their own views of how they do things from their given account. In addition to that, the researcher's role in reconstructing findings by eliciting meaningful themes which are consistent with the substantive theory of DC was

developed at the same time of consulting the literature at later stages throughout the process of data collection and analysis. The analytical process of reconstructing elicited themes and meanings as they emerged will be further discussed. However at this stage themes and meanings were not the only emerging phenomena. I also begin to realise the emergence of the researcher in me, now, more confident of my own social position in the study and more aware of the intricacies of the social phenomenon under investigation.

The reconstruction of the data during analysis as illustrated in figure 4 is mainly coupled with figure 5 in the next chapter. The diagram as displayed in figure 5 represents the framework that underpins this study which is exploring how TMT make sense of acquisition opportunities using DC lenses for further understanding.

As a result of my greater self-awareness, better understanding of the social context under which I was operating, coupled with the innovative use of think aloud technique helped me to take into account respondents' prospects on things which secured the emergence of findings from respondents' account using grounded approach in a more sophisticated and confident manner. At the same time, available knowledge of diverse concepts as discussed in chapter two and illustrated in figure 5 became more coherent and provided me with the notion of pattern repetition to accommodate emergent explanations from respondents' account. The combination of the emergence of the researcher, me in this case, data collection methods and analysis helped to gain deeper insight to the discussed literature in chapter two from actual managers' experience in action.

Although grounded approach shares the phenomenological interest in subjective understanding from respondents stories as raw data, the use of grounded approach shapes such interest differently to elicit information on the social situation of

respondents i.e. TMT interaction during sensing phase instead of focusing on the stories themselves (Suddaby, 2006).

The impact of such interest on the analysis of collected interviews outlines analysis of transcribed text. Therefore, the researcher aim during analysis is to identify a higher level of abstraction than the raw data itself. This demands a constant movement from data and evolving theory in an iterative process unlike the linear nature of positivist research. Once the researcher reaches category saturation, i.e. when additional interviews do not yield new data, the process of data collection terminates. Category saturation process is considered a primary verification means in grounded theory (Strauss and Corbin, 1998).

Open coding which is the initial step in theoretical analysis is the stage where the researcher identifies a number of codes. Some codes were consistent with existing literature of DC and did not provide any new insight to the actual role of managers during sensing phase. Instead, it reconciled with the existing knowledge in DC on the stable use of systemic and analytic tools as informative tools of available opportunities. However, a different core category started to be located in the narratives of the mangers describing a repetitive pattern of behaviour by the managers during their interaction across the four acquisition episodes.

The core category is the presence of social roles which distinguish individuals' actions during the presentation meeting from their organisational role. The researcher differentiates between organisational role of each individual and their actual behaviour during their interaction as described by all managers to answer simple general question about how they perceived their behaviour in each of the four acquisition episodes. Each individual described what he does during each acquisition episode and what others also do during the discussion of potential opportunities. Hence, the description of what

happen between the six managers during presentation meeting across four acquisition episodes was sought from each managers which means the narrative is repeated, recorded and transcribed six times.

The role of the researcher, in this case my role, must be acknowledged in the identification of core category sometimes during the interview and further transcribing the interviews and reading the transcribed report. The researcher in this case becomes the author of the theoretical reconstruction based on identified core category. The variation in behaviour between manager's roles are due to varied expectations of what manager "x" is entitled to do having his organisational role, and how he actually acted during the meeting. This realisation terminated the open coding stage by highlighting the presence of various roles.

In this mode of analysis, the logic of probable claim (Phelan and Reynolds, 1996) is worked out by handling collected interviews. So, support information from interviews established the claim of the significant role of social roles during sensing phase. Credibility of inductively inferred claim using coding technique to generate categories in an iterative mode is believed to generate a sound argument (Gerring, 2007, Glaser and Srauss, 1967, Strauss and Corbin, 1998)

A sound argument (Gerring, 2007) is recognised by a number of features. It should satisfy a condition which depends on two basics: the reasons behind the argument must be acceptable in addition to the availability of enough reasons to support the conclusion being made. Therefore, the soundness of an argument in qualitative term is measured by the strength of the inference. One way of measuring the strength of inferred qualitative argument is by the use of a single or combined research methods to draw a conclusion (Gerring, 2007).

The use of in-depth inquiry as a research method for the purpose of answering the research question of this study was used to observe any repetitive occurrence of key repetitive patterns during sensing phase which can explain TMT role within the existing framework of this study. However, the researcher is aware of validity issues by constantly remembering that the researcher is human and observing explanatory patterns from collected interviews is a function of who the researcher is and what is hoped to be seen as warned by (Suddaby, 2006).

In this case, observed patterns have to be consistent with the notion of stable repetitive pattern across the four embedded cases of the four acquisition episodes. The researcher ascribed labels to the given meanings as found in the interviews whenever a repetitive pattern that have the potential to explain a particular behaviour during the interaction was captured.

So, the researcher started the analysis by trying to compare behaviours of the six executives from their direct account of what happens in their presentation meeting to discuss collectively a potential opportunity. A comparison was used between the four acquisition episodes to identify similarities and differences which might reflect any regularity or emerging patterns and trace its link to sensing opportunity as a consequence of managerial behaviour. The aim at this stage of analysis is to explain sensing in view of actual behaviour as experienced by managers.

Organisational position, as given information, was the first clue to try to find the un-given information about hidden meanings that can capture what actually is happening during presentation meetings while members of the team are interacting. This helped later in comparing observed and actual behaviour from the data as described by respondents with what is expected from each individual in view of occupying a certain organisational position. Therefore organisational role of each executive is used as initial

tool to understand behaviour of executives during the on-going interaction of sensing phase. This is performed after Weber's ideal type which point out the importance of *conceptual or mental constructs* (Crotty, 2005, P: 70).

The researcher proceeded with the above analytical strategy by highlighting words, sentences or paragraphs that imply a meaning which describes a repetitive pattern using coding technique as described in the previous section. Doing that, I breakdown each highlighted meaningful response as an idea (first order code using informants own words) as illustrated in figure 4 below describing data structure. This step helped to capture meanings in respondents' account about what they do during sensing phase across the four acquisition episodes. The respondents hold different additional expectations to what is expected from them according to their given organisational roles. Both types of expectations are equally significant in shaping TMT behaviour during their interaction.

Therefore, organisational role alone is found insufficient to explain the executives' behaviour during sensing phase. Instead, new repetitive patterns from real data as obtained from the six executive members of the team regarding their actual doing in each acquisition episode was the key to new findings.

Organisational roles and newly observed meanings regarding characteristic patterns of behaviour based on additional expectations to organisational normative roles served as *"a useful model to guide the social inquirer in addressing the real deviates from the ideal. It reveals, Weber tells us (1970, p.323), what is "possible and adequate""* (ibid). Thus, this idiosyncratic observation was the key in understanding how TMT act during decision making of acquisitions inherently uncertain by nature.

Detailed analysis of a given situation in this case is interpreted as a text from verbatim which is direct quotes from respondents instead of searching for general laws. The

interpretation framework for developing themes represents repetitive patterns whenever they are found to be consistent across the four acquisition episodes.

Adopting the interpretive approach for purpose of understanding while reading the text of the interviews was focused on the search for meanings of observed patterns, as described in details in chapter three section two, which help to *"consider an interpretation of a sequence of events to be causally adequate, if on the basis of past experience it appears probable that it will always occur in the same way"* (Weber cited in Crotty, 2005, P:69).

The idea expressed in the above quotation explains how the themes which are in this case the "*sequence of events*" are captured due to their consistent appearance in the interviews given repetitively by all respondents. By the same token, the persistent presence of such patterns across the four acquisition episodes from 2006 up to date provides the necessary confidence in considering such interpretation adequately based on their significance in understanding sensing phase on "*the basis of past experience*". Such consistency across the four acquisition episodes *"appears probable that it will always occur in the same way"* (ibid).

The newly captured patterns imply a meaning of social behaviour which is considered a role. This can be considered *eureka* moment in my findings, at this stage I felt as if I had come full circle from a naïve optimist to a well-rounded junior academic in the making. I differentiated these roles their organisational counterparts by probing using laddering technique in order to generate second order coding to understand their source of origin. They were found laden by social expectations. Hence I considered them to be socially constructed and therefore, labelled them with names according to their predicated meanings. A further detailed inquiry of the content of each socially constructed role helped to me define the characteristic features of each identified pattern

of behaviour and therefore, cluster them under narrowing categories which helped in labelling them as illustrated in analysis in chapter 5. The three main categorical roles are considered to have significant consequence to the sensing phase.

Once such example is can be illustrated by the probing of all respondents about how other members responded to proposing act. I compared the account of different individuals who engaged in proposing behaviour with what other members thought about each other's reaction to find similar meanings from the rest of team members on the importance of proposing potential opportunity in open meeting regardless of the organisational rank of the founder.

The answers add to legitimise my own transformation and my becoming of a more astute researcher and bolstered my confidence in the notion of roles as a core category during sensing phase which explains how managers interact to make sense of potential opportunities of acquisitions. At the point when all members started to provide me with similar stories regarding their interaction during sensing phase across the four acquisition episodes to confirm an account given by an individual, I decided to stop collecting any further interviews and consider a saturation point (Eisenhardt, 1989c). A few limited interviews were considered with respondents to be taken in case a further clarification was needed. Figure 4 below illustrates data structure as a result of reconstructing original interviews to fit substantive theory of DC.

1ˢᵗ order concepts   **2ⁿᵈ order themes**   **aggregate dimensions**

"...frame it, yeah frame this that's probably a better way of I'm trying to tease out the you know help him tease out the rationale as to why we should and why we shouldn't" [GBDD]

PROPOSER

Independent role

"CFO played the role of Mr.no very well" (EMD₁)

CONTROLLER

Organisational role

"The EMD₃ is like the wise man" [EMD₂]

CONSULTANT

"As I say he will always be much more about where is the fit? ......he will be more involved, he will have the same sort of input almost on every occasion " [CEO]

FACILITATOR

Hybrid role

"CEO is the final decision maker ...the final arbitrator" [EMD₂]

ARBITRATOR

Sensing phase is the result of social roles interaction at aggregate role level during the decision making of acquisitions

Figure 4: Data Structure

3.4   Quality of research

Bryman and Bell (2003, P: 35) stress the need for qualitative researcher to ensure that conclusions drawn from qualitative research are derived from data and not from theoretical assumptions or personal views of the researcher to ensure objectivity. However, *the fiction of objectivity* in social science related disciplinary is acknowledged to be more obvious especially in qualitative research where the impact of the researcher is argued to be inseparable through *the interactional and constructional nature of epistemological processes* (Breuer et al., 2002).

Given that the purpose of this study emphasises lived experience as key clue to understanding human actions and activities to the extent that truth might be unattainable to using some of the quantitative methods (Sandberg, 2005). This explains the claims by interpretive approach in relation to the production of objective knowledge using rigour quantitative research methods as being insufficient for advancing our understanding of human and organisational phenomena (Prasad and Prasad, 2002).

Instead, the interpretive approach allows the researcher's involvement to understand the real world life better and properly articulate its features contrary to positivist researcher who separates themselves from the reality they work on (Healy and Perry 2000). Therefore, the use of interpretive approach was guided by research purpose which justifies the adoption of paradigm. Thus, truth claims from lived experience using criteria that are *consistent* with basic assumptions underlining research approach and selected paradigm is believed possible (Sandberg, 2005).

Interpretive approach provides organisational and management researchers with new means that should be paradigm specific of the study to validate drawn conclusions (Symon and Cassell, 2012, P: 210) from investigating unexplored questions within humanly experienced world that lead to new forms of knowledge. This explains the

need for new assessment criteria to justify this knowledge and to replace validity and reliability criteria as illustrated in table 4 below.

Table 4: common criteria for assessment of business and management research quality

Criteria	Qualitative	Quantitative
Reliability	**Transferability**: ability of findings to capture real life and events (Symon and Cassell, 2012). **Credibility**: free findings from researcher's bias (ibid).	**Consistency**: mainly about repeatability of obtained results that should occurs within some acceptable margin of error using the same data collection procedures (Lee, 1999). **Stability**: the consistent obtained results should repeat consistently over time (ibid).
Validity	Yen (2009) recommends three tactics to ensure validity: • Access multiple sources of evidence. • Establish a chain of evidence. • Key informants should review the case study report to ensure veracity, honesty and clarity.	Internal **validity** refers to sufficient justification of established causal relationships that reject or accept provisionally the hypothesis of the study (Lee, 1999). **Generalizability** is a form of external validity that refers to the ability to generalise results into a larger or alternative population (ibid).

Source: Adapted from Lee (1999), Symon and Cassell (2012) and Yin (2009)

Reliability of findings drawn in this study from interviews using inductive inference could be judged on the basis of the use of research methods for data collection that are congruence with the features of the study design (Miles and Huberman, 1994) and could be measured by the strength of link between reason and conclusion (Phelan and Reynolds, 1996). The use of suitable methods as described under data collection methods section 3.3.4 refers to quality process which implies validity whereas the strength of inference relates to reliability of findings as illustrated in table 4 above.

However, for the sake of validity in qualitative research, it is more than just data collection methods congruence. Transparency of how qualitative research design develops through an iterative process of analysis to demonstrate consistency between research activity and reported findings and interpretations is essential for the assessment of research quality process (Braun and Clarke, 2006, Symon and Cassell, 2012). This criterion can be assumed to mirror internal validity in quantitative studies (Lee, 1999).

However, given the purpose of this study, it is inevitable to reconceptualise validity as practicing good science rather than being right (Sandelowski, 1993). Validity, in this sense, is a matter of relying on the interpretive practices that are contextually grounded within the interviews rather than relying on universal rules that are assumed for every study.

Validity is viewed as a culturally and historically situated social process (Mishler, 1990). In this respect, the researcher cannot be decontextualized but the emphasis is more on the use of the researcher's tacit understanding of actual situated practices in the field of inquiry to do the work and make claims. The initiation of the study as a purposive case study reflects the tradition of theorising within the strategic management literature and DC micro-foundation studies (Burgelman, 1996, Tripsas and Gavetti, 2000).

The diversity of decisions which the researcher has to negotiate through the process of data collection and analysis as will be further described in this section combined the rigor use of technique without violation of approach key operations and interpretivist commitment to *perfecting a craft* (Sandelowski, 1993)by sticking to versatility and sensitivity to meaning and context which mark qualitative works.

The tacit understanding then, leads to achieve transferability of findings. Transferability of this study which mirror external validity in quantitative studies is related more to fitness of findings to established theory (Symon and Cassell, 2012). For instance, findings regarding the presence of three categories of social roles during sensing phase highlight the significance of TMT social interaction as a source of DMC which stabilise the uncertain sensing phase.

Transparency of qualitative analysis in this study can be accomplished by providing the reader with detailed representation of findings as illustrated in figure 4. Also, a thick detailed description of the rigorous use of software throughout the data management

under 3.3.5 and data analysis under 3.3.6. In addition to this, a detailed thick description of the different decisions which the researcher has to make in order to develop a research methodology can serve the purpose of transparency to validate interpretive practices. This ensures openness of the entire process to others in order to be able to follow the inferences made from raw data that have been collected through the interviews (Miles and Huberman, 1994).

A number of decisions were taken as measures to ensure the validity and reliability of findings of this study despite general controversy regarding validity in interpretive/naturalistic approach (Bloor, 1983 {Sandelowski, 1993 #1096)}. This can be mitigated in qualitative research by providing a thick description of enough details of the specific research case and qualitative process which will help the reader to judge the quality of the findings.

The researcher has to make a number of decisions to develop the qualitative methodology as it progresses by making a number of careful decisions which can best serve the purpose of this study which is to gain insight on the role of TMT during sensing phase without any violation to the necessary coherence of practice under any approach (Locke, 1996).

The first major decision is about the choice of research strategy to select a purposive case study of a company that performed many acquisitions. Also, a decision to select purposive informants who are TMT is made to ensure accurate location of subject matter. This is the first step to reach findings that are drawn from correct source of evidence (Yin, 2009).

The researcher is also aware at the onset of data collection adopting a theory building strategy on the importance of consistency of the different decisions to be made as the process progress in an iterative manner. In other words, the process of data collection

and analysis are carefully adjusted from the original grounded approach to suit the purpose of the study without any violation to its key operations and to provide information on how it was used to develop theoretical categories as explained under the previous section 3.3.6. (Locke, 1996).

Adjustment decisions involved the adoption of "think aloud" technique using open end questions to allow respondents to reflect on their own experiences in actions revealing their own believes, thoughts and ideas to describe their actions during the presentation meeting which espouse sensing potential opportunities. This is consistent with the social constructionist stance.

Another adjustment decision to suit the purpose of this study is about locating the human agency in the researcher after Strauss and Corbin (Strauss and Corbin, 1998) take on grounded approach to reconstruct the raw data from respondents. This is consistent with the further use of laddering technique to probe further around emerging categories based on interpretivist approach that advocate human judgement.

This explains the analytical strategy which is adopted for analysing the data in this study. The development of constructionist grounded approach (Mills et al., 2006) suffices the purpose of this study to fill an identified broad gap in view of the incompleteness of DC micro foundation literature. The further narrowing of the gap to explore the role of TMT social interaction during sensing phase was refined along the entire process of data collection and analysis which is featured to be iterative. It is also important to acknowledge the role of literature review during analysis in order to assist laying out the findings using role theory to fit within the DC sustentative theories.

 This entails the researcher to make a number of decisions to modify the original grounded approach to benefit from its flexible nature to suit the research purpose (Suddaby, 2006). Such strategy is complementary to the type of literature review I

undertook to initially acquaint myself with the underlying assumptions of substantive theories in the research area and to identify a more precise research gap once the core category about the notion of role emerged from the respondents account.

This study is an empirical example of the blurred line between the different stages of research activities of data collection, coding and interpretation that overlapped substantially in order to serve the purpose of this study which is to gain insight and rich data to the role of TMT during sensing phase and develop a theory that can fit the substantive theories of DC as illustrated in figure 5, chapter 4.

However, the complex nature of research methodology poses a significant challenge to the validity of the findings of interpretive studies. Therefore, different measures are taken as will be further discussed. In social science, triangulation (Yin, 2009), involves the use of different methods by the researcher to corroborate evidence. In the present research I made use of triangulation in as much as possible to assess the accuracy of respondents' accounts. Examples include triangulating respondent's account of existing systemic and analytic tools, like the possession of opportunity list and executive periodic meetings etc. In this respect, I also reviewed codified knowledge of existing held in published media such as power point presentations and spread sheet which reflect existing systemic assessment of potential available opportunities as a supportive tool to acquisition decision making.

However, triangulation could not be used effectively to validate the second part of the findings regarding team social interaction and the presence of social roles. Observation is often a triangulation tool by which the researcher observes individual and team behaviour when they are in action to validate their account against described activities (Saunders et al., 2009). In the absence of such a method to triangulate respondents account and recount, a number of sociologists recommend "member validation" (Bloor,

1983). However, even member validation has its shortcomings as described by Bloor (1983) who argues that members' responses are not perfectly produced for the following reasons: nature of interaction between researcher and member, social norms concerning politeness and consensus building, frank conflicts of interest and need (Sandelowski, 1993). This explains why the research process is social and subject to analysis (ibid).

Alternatively, the persuasion substitutes the issue of validity in naturalistic/interpretivist approach to produce trustworthiness in the findings. (Sandelowski, 1993). That is to make research practices visible and auditable rather than claiming rightness of findings; the same principle was applied in this study as a measure of assessment to quality of data.

Nevertheless, member validation can be used for a limited part of collected data in this study. This is to ensure the subjective experience of respondents were sought as the outcome of research fieldwork and being secured as the most valid and rich information about managers views (Snow et al., 1986). The use of "think aloud" technique is consistent with the social constructionist views adopted in this study to secure managers' subjective views. The adoption of social constructionist method treats the subjective account of respondents' views as valid since it reflects their subjective interpretation of social events that compose their world as they experienced it.

During this stage of data collection and analysis I stressed on capturing the multiple realities of each respondents which I interpreted at later stages as a representation of a form of implicit role system. I also validated interpreted findings as they emerged in tandem with on-going interviews as a vivid process and not as information that can be elicited from a particular interview because it "*cannot be simply decontextualized to constitute a test of validity*" (Bloor, 1983) P 164.

The findings in the above sense are based on the inter-subjective account which is the result of another decision that I consciously took in order to fit emerging meanings from the subjective account within the substantive theories that are illustrated in figure 5. The selection of consistent analytical strategy has to be coherent with the selected grounded social constructionist approach to advance this study. Therefore, a decision was made to relocate the agency of selecting a core category from the grounded data in order to explain the substantive theories in figure 5 from the respondents to fall under my responsibility. This step was assisted by concurrently consulting adjacent theories related to the selected core category which is the notion of role and how it can explicate TMT interaction during sensing phase.

This signalled a new twist in the data collection methods to probe respondents' account using laddering technique. This gave me a slight directive role during the remaining period of data collection and analysis given that I had to focus the account to further explore the identified core category as well as triangulate respondents' account.

However, accounts in qualitative studies can be challenged as a source of methodological shortcoming (ibid). This is down to the age old problem of ethnographic studies (Snow et al., 1986) where the relationship between the role of the researcher in fieldwork and the informational yield lack specificity. The combined use of "think aloud" and laddering technique is a novel combination of methods which helped the gradual development of qualitative methodology without breeching method coherence under the interpretive paradigm. This in itself is viewed as a methodological contribution of this study.

Finally, generalizability in qualitative research should be assessed based on research purpose, in this study is to gain theoretical insights rather than to generalise to a population. This implies several issues in term of selection of respondents and related

issues of persuasion and reliability as a consequence of the adopted strategy. Purposive case study welcomes the use of subjective judgement to identify sample size as experienced in this study (Saunders et al., 2009). In this case, generalisation is made to theory and not to a population which explains the nature of transferability in qualitative research (ibid).

However, according to Miles and Huberman (1994) the quality of qualitative research is not all about technical matters to ensure truth of produced knowledge rather it also includes conducting research in a manner that is responsibly sensitive to the rights of people whose views and lives are being studied. I discuss issues related to research ethics in the next section.

3.5   Ethics of research

Ethics of research are concerned, broadly, with questioning the absolute right or wrong of doing things with regard to knowledge production and practice in term of methods use since Immanuel Kant (Holt, 2012). In other words, it relates to issues of how research topic is formulated, clarified, designed in term of gaining access, collecting, storing, analysing data and reporting findings in a moral way (Saunders et al., 2009, P: 184).

Research ethics concerning research integrity and quality is observed through the careful formulation of research topic and design as it evolves to ensure the development of a sound methodology and defensible moral to all involved in the assessment of the study as asserted by the likes of Miles and Huberman (1994) and Saunders et al., (2009). Research ethics as rendered to sound methodology (Holt, 2012) can be ensured by developing consistent epistemological and ontological assumptions consistent with research purpose and question.

As a qualitative study, it aims at understanding and gaining new insights. According to Holt (2012) *"qualitative research is distinguished by its proximity to what is being studied"* which reveals the active role of researcher in giving form to what is being studied. Section 3.3.6 provides a transparent account of inferring existent meanings from captured patterns in the data which were cross-checked with respondents for confirmation and to make sure that collected data are not being misrepresented.

Confidentiality and anonymity of respondents and cases did not seem to distort data or breach analysis having the purpose of the study and the nature of interpretive approach to analysis. Defensible morality is also ensured as advised by Miles and Huberman (1994, P: 293). All names including, company name, acquisition cases and respondents were kept anonymous to protect their privacy, safety, comfort and their personal views with regard to how they construct their world as a measure of confidentiality in response to their request. Storage of data was kept safe and private by encrypting them on allocated space by the university information system as described in section 3.3.5.

The manner of gaining access to the organisation and to all respondents as explained in section 3.3.1, 3.3.2 and 3.3.3 ensured that they were all knowledgeable about the purpose of the study and about their role. This was communicated to them by emails and oral confirmation before the data collection begun as advised by Saunders et al., (2009). Honesty was maintained by disclosing my intentions to use raw data from respondents own words published in the thesis as evidence to support emerging themes and categories as recommended by Holt (2012)

Every effort was made during the data collection as described in section 3.3.4 and 3.3.4.1 to avoid enforcing questions or coerced participation in each interview. Respondents were all responsible adults with high level of education and prestige who were highly qualified to reject participation if they did not wish to get involved in the

research. They were all informed in advance via emails that the interviews would be recorded. Interviews were conducted at their local offices at dates and times convenient for them. Duration of interview was kept to one hour except in few cases when the respondents consent to happily go over.

Finally, the Research Ethics Committee at the University of Leeds approval is a mandatory practice to conduct a research. This entails filling a Field Risk Assessment as a practiced norm to gain ethical approval on conducting a study on business and management research according to certain set of standards.

3.6 Limitation of methodology

Qualitative research using case study is associated with some limitations of the most notable one is the trade-off of generalizability for the sake of richness, accuracy and insight of research matter (Langley, 1999). The theory, however, emerged in response to research aim and question concerning the exploration of TMT behaviours to conceptualise managerial agency role during sensing phase of acquisition decision making process across four embedded cases of acquisition episodes in one single company case. The contribution in this case is theoretical rather than statistical (Saunders et al., 2009).

The research aim set the overall research design. Thus, the use of the interviews as a research tool which is one of the most notable methods in social science estimating that 90% of social science studies using it has its own challenges as well (Morris, 2009). However, the appropriate use of open questions was considered to avoid leading questions as a measure to avoid potential influence on informants' responses as advocated by most methodology text books (King, 2004, Kvale, 1996).

The influence of specific traits of research settings for instance team size and composition is considered in the same light. However, the nature of study and sampling strategy determines the selection of informants. In this case, the selection of TMT members who were involved in acquisition decision making during sensing phase inevitably involved a varying personal traits, experiences and education. It is legitimately unavoidable, having the purposive nature of the research, to match the criteria of a purposive sample (Easterby-Smith et al., 2012) exploring the interplay between their human, cognitive and social capital influence on their interaction.

However, interviewing elites is noticeably challenging, this brings several issues like power imbalance between interviewer and informants, objectivity of truth and dishonest informants (Friedell, 1967) to the fore.

Arguably, power imbalance (Morris, 2009) relating to issues such as taking control by challenging informants, politely, posing silence to force the informant to break undesirable social silence (King, 2004) is a potential area of concern. The researcher in this study has not experienced power imbalance in the sense of fearing losing access, or hiding sensitive information. Contrary to that, the team committed to the interviews as was agreed upon at the onset of the study and the general feel was of a collaborative search for meaning as advocated by feminist according to (Morris, 2009)of sensing between the researcher and the informants which led to the next challenge of sighting objective truth.

The philosophical grounding of this study in the interpretivist/constructionism paradigm lends itself to the exploration of meanings given by informants (Lilleker, 2003) using their own words describing their own worlds. This is facilitated by the use of open-ended questions which is a valid technique in this case (Saunders et al., 2009). Truth

then is not objective or independent from the actor rather it is explicitly articulated to reflect their own views world (Easterby-Smith et al., 2012)

As for dishonest informants, elite respondents may find talking about the past quite challenging to remember or they might get past events wrong (Davies, 2001). Others, believe that elite will try to hide parts of the truth when it might be threatening to them (Morris, 2009). The aim of the study was discussed at the onset of with the CEO. The identification of cases and informants were agreed upon with him at the very early stage. The questions about the four embedded cases were addressed equally to the six informants where the answer given by each individual was corroborated by the rest of the team members. The emphasis here is placed on the development of meaning from given answers rather than judging the truth through the interview process. (Bailey and Tilley, 2002). Besides, the questions addressed to informants are non-threatening (Leech, 2002) due the nature of this study which removed any chances of dishonesty that might sabotage the validity of findings. Showing commitments to confidentiality is another strategy which is noticed to facilitate interviewing elites (ibid).

Chapter four: Research context

4.1 Introduction

The objective of this chapter is two-folds. The first objective is to provide a brief relevant literature on acquisitions to set the context of this study. It is enviable to review the existing literature on acquisition strategy in order to understand how the adoption of dynamic capability framework provides a conceptual foundation for the strategic decision making of acquisitions. Moreover, by adopting a flexible research methodology for this study renders the literature review of predominantly DC and acquisitions. This is an element which helped to identify the gap and locate the study in the decision making process in particular focusing on sensing and seizing as the two main patterns of pre-acquisition decision making.

The second objective aims to provide a detailed description of the case in the next two sections. The first section provides a historical background of the company because of the significance of firm historical path to accumulate experience and learning of acquisition. It is composed of two sub sections. The first sub section describes the organisational structure of the company. The second sub section provides a description of the top management team composition representing the level of analysis in studying pre acquisition decision making process.

The third section provides a description of the acquisition process, triggers and four embedded cases which are four acquisitions.

4.2 Merger and Acquisition

Mergers and acquisitions (M&A) set broadly the context for this research. Although (M&A) is referred to in strategic management literature as synonymous, they are known to have slight differences. A merger is the case when two organisations accept to be combined and both are willingly agreed by shareholders on the new combined entity.

The purpose of newly formed entity is to bring synergy and complementarities. Whereas an acquisition is the case when one organisation acquires another one, often smaller, where shareholders usually accept to concede their ownership for a fair price (Henry, 2008). In cases where shareholders are not in agreement with the acquisition, then it is known to be a hostile acquisition. Hence, acquisition implies an absolute higher level of uncertainty during decision making that cannot be alleviated mutually as in the case of merger discussions due to common benefits for both parties.

Accordingly, the decision on acquisition was finally sought as more sensible to set the boundaries of case study together with an important consideration related to the similarities between acquisition and DC patterns as will be further discussed.

Acquisition is a temporal investment decision demanding the commitment of substantial resources to a specific act (Hickson et al., 1986). It is usually followed by a series of lesser decisions over a period of time due to its temporal nature. This lays the foundation of emerging path resulting from its enduring impact as a strategic decision that determines future direction of the firm (Mintzberg et al., 1976).

The decision making process of M&A which applies to acquisitions as well is handled by "*the super elite within the elite*" of the firm (Hickson et al., 1986). This identifies a more specific group among the upper echelon due to the nature of the matter in hand as explained by Hickson et al., (1986). Such decision, usually, do not go through committees due to their broad scope or middle executive meetings who deal with more familiar matters.

In contrast, it is an exclusive activity to board discussions or their equivalent in office discussions which suggest M&A to have a substantial social component of the decision making process. In this case, the process by which the super elite arrive at such decision is known to be "*quasi-decision making*" (Hickson et al., 1986). In such mode of process,

all respective managers are aware of what will be decided, despite the fact that they will still go through the process.

Acquisition is a dynamic capability (Eisenhardt and Martin, 2000). A synthesis of the two literatures on acquisition (Pitts, 1980, Porter, 1987, Salter and Weinhold, 1979) (Salter and Weinhold, 1979) and DC in chapter two shows similar patterns between the two concepts. Acquisition as illustrated in figure 5 below requires scanning, searching and exploration of opportunities which are uncertain and loaded with high risk in dynamic environment. As a decision making process, acquisition decision is a complex decision making process (Hickson et al., 1986) mainly during sensing phase.
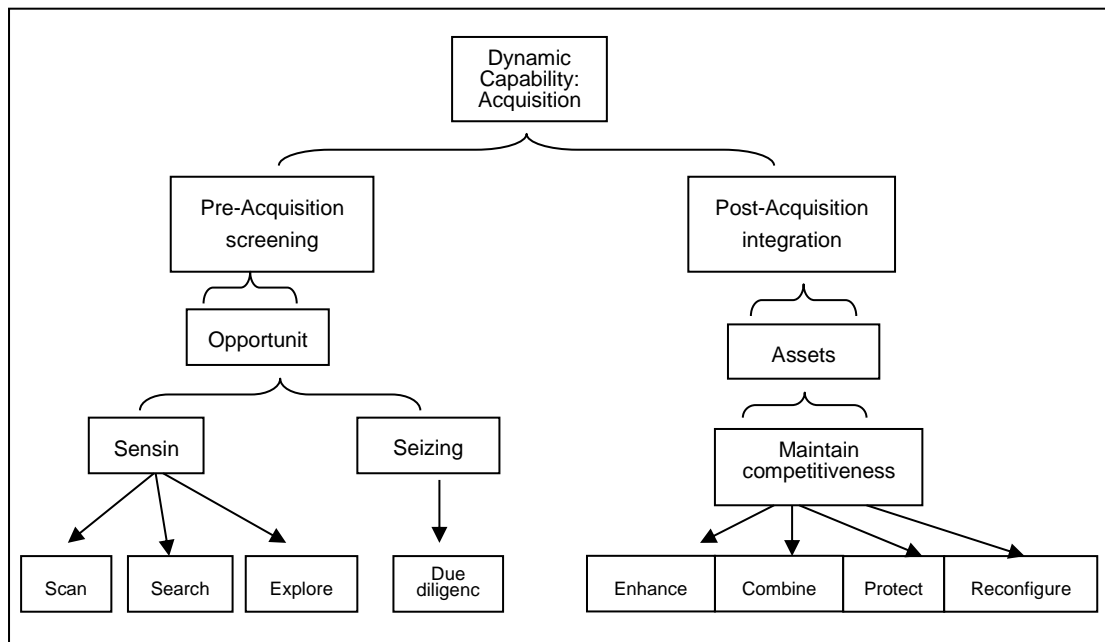
Figure 5: Visual illustration of construct dimensions (Al-Shaghroud, 2010)

The figure (5) above is the framework which provides the backbone for the entire study. It is a visual representation derived from the synthesis of the wider literature on DC and in particular from the similarities between acquisition processes and dynamic capabilities patterns as defined by Teece et al (1997). It reflects the embedded cognitive and social characteristics of humanised DC patterns at the level of opportunity sensing and seizing which is the view of this study.

It illustrates eclectic views on substantive theories within the micro-foundation of DC and it explicates a complex synthesis of DC literature as discussed in chapter two. Sensing phase of acquisition decision making that is inherently uncertain is complicated by differences at the level of individuals, lack of information and strategic ambiguity. Hence, making sense of uncertain opportunities at the level of individuals in a team of executives is a phenomenon which demands further inquiry.

It also illustrates acquisition processes which are divided into two main phases that resemble associated patterns of capability management: pre and post-acquisition (Richey Jr et al., 2008). Pre-acquisition includes opportunity sensing and seizing (Teece et al., 1997) which aid managers' endeavour in favour of strategic renewal of the firm (Augier and Teece, 2009).

Sensing is the phase which demands entrepreneurial, creative and imaginative management reflecting managerial ability as part of their judgement on potential opportunities (Teece, 2012). Acquisition is an exemplary decision making process which is supposed to engage managers in such creative processes during sensing phase because it is mainly about interpreting information about inherently uncertain opportunities within dynamic environment (Eisenhardt and Martin, 2000). Therefore, it is a challenging phase for managerial decision making ability.

Sensing as a capability of opportunities or thereat could be conceived as opportunity discovery or creation in business ecosystem (Teece, 2007). As patterns, it is argued that it is grounded in organisational processes

Access to information (Eisenhardt, 1989a) and opportunity recognition from a dynamic capability perspective are key skills for managers to make sense of opportunity and to compensate harder task such as interpreting market trajectories in their early stages (ibid).

The role of top management teams during sensing phase is expected to reflect the capacity or ability (Martin, 2010) to successfully enable them to manage opportunity discovery routines and activities for example: scanning, searching and exploring technologies. Pre-acquisition patterns are highly complicated by information systems and outcome uncertainty versus task programmability (Eisenhardt, 1989a).

However, this role is challenged according to cognitive literature which confirms people associated fears when it comes to highly uncertain decisions due to indefinite consequences that may have long term effect whatever the effect is as they have to live with (Hickson et al., 1986, p: 148).

Post-acquisition is mainly integration processes which is heavily based on assets reconfiguration (Teece et al., 1997). Having DC lenses, it reflects different sets of managerial ability and skills regarding planning and implementing the post-acquisition phase; "integration processes". It stands as a capability on its own that entails modifying operational routines in both acquiring and acquired units (Zollo and Winter, 2002). According to Teece (2007), managing threats and reconfiguration of firm assets as it grows to sustain its success is perceived a DC as well. Reconfiguration is mainly asset related processes in order to maintain evolutionary fitness as oppose to static technical fitness. Integration processes at post acquisition phase demand a huge amount of attention and reconfiguration of both firms' assets; acquirer and acquired firm. Enhancing, combining, protecting and reconfiguring of tangible and intangible assets is the core functions of asset reconfiguration (Teece, 2007).

However, this study is focused on exploring the pre-acquisition phase mainly sensing phase, it seeks to gain a better insight in order to understand managerial ability as a DMC. It embraces main patterns where firms' dynamic capabilities enablers are supposed to be innate and therefore, conceal firms' micro foundation of dynamic capabilities. Therefore, any evolving managerial agency-capability relationship is

probably residing within the above identified patterns where enablers may unfold across the two phases of acquisition (Pandza, 2010).

Additionally, acquisition patterns correspond with the notion of learning in chapter two as acquisition processes enable firms and managers to develop a learned process through the development of initial experiences with acquisition (Zollo and Winter, 2002). Accordingly as a learned process, acquisition is developed while it is managed in a systematic and, to some extent, predictable manner (ibid). However, the mechanism by which it is learned and enacted in view of highly challenging sensing to top managers whether cognitively or systematically remains in black box.

Nevertheless, one could build on complimentarily and constitutive nature of evolving relationships between agency and firm capability (Pandza, 2010) to explore this relation. In other words, acquisition decision making process may be perceived as a consequence of managers creative entrepreneurial act (Teece, 2012) giving managers the upper hand in this relation uphold by managerial heterogenic entrepreneurial beliefs which affect their human interaction in terms of their alertness toward unpredictable opportunities (Kor and Mahoney, 2005, Kor et al., 2007, Mahoney, 1995) or being unique invisible asset of the firm because of their experience, skills and relationships (Mahoney, 1995).

Furthermore, it is based on the interdependence of acquisition strategic processes and activity as a growth strategy (Johnson and Scholes, 1999, Krug and Hegarty, 2001) for the firm. This study argues that acquisition strategy as a dynamic capability could provide a suitable framework to study a number of concepts that underlay managers' actions and interactions (Ven, 1992) in terms of decisions they make and actions they take represented by their practices.

Such practices can practically be observed while managers handle challenging sensing phase being held by TMT because it demands managerial judgement that goes beyond

calculations and rational predictions which pose cognitive limitation when deciding on uncertain future decisions (Teece et al., 1997).

Having the contradictory effect between inherently chaotic and unstable sensing and DC stability of patterns provides a framework which helps to understand how sensing can be stabilised through the interplay of human, social and cognitive capital in view of reviewed literature in chapter two.

In conclusion, firm's ability to perform as identified by dynamic capability literature within mergers and acquisitions context is the outcome of a manager capacity to interplay with some components as shown in figure 5 above. Based on that and as a departure from traditional resource based literature, using DC lenses to explore DMC in view of the identified gap in chapter two, this study is taken to explore the following question:

How do patterns of social interactions support dynamic managerial capabilities of top management teams?

The next section provides a limited descriptive analysis on the firm and a historical background. Sources of data are limited to interviews and website which is not referenced in the bibliography due to confidentiality commitment.

4.3   The firm: Plastica

The study reported in this thesis arises from the exploration of TMT views and roles during sensing phase as a purposive case study with four embedded acquisition cases. Plastica group founded in 1979 comprising 17 industrial or commercial sited in Europe and the Middle East. It employs 2,000 employees for a consolidated Turnover of 450 million euros. It has 28 major brands, 16,000 products, filed 100 patents and drawings in the world, 550 marks, and 40 certified products in Europe. The main activities of Plastica are currently performed in the UK and France.

Plastica is a company, Building Products Ltd. It is a private company categorized under Plastics-Raw Materials/Powder/Resin-Manufacturers and located in Liverpool, United Kingdom. It is one of Europe's leading plastic building materials manufacturers for residential, commercial and infrastructure civil sectors as it stands today.

Plastica offers a broad range of residential product and service solutions for specific application systems. It provides innovative solutions in response to legislative and industry targets of more sustainable houses which serve the residential sector. It also provides engineered products and comprehensive service supports to major commercial projects from car parks and shopping centres to hospitals and educational premises. Finally, Plastica civils and infrastructure specialised in surface water drainage and cable management systems which provides project planners with a complete suite of solutions.

4.4 Historical background

Plastica started as a small company which was set up by an entrapreneur called (Mr.KM) in 1979. The founder developed it in a way that grew based on a number of acquistions and became listed company. The company then went through several buyouts. It was first sold out to ABC group company in 1999-2000 period.

ABC had boardary structure and shortly went through a new executive management change. As a result of that, the new directors decided that they wanted to dispose any of their buisnesses in building products and therefore, Plastica was put up for sale for a while as it took few years for it to be resold.

In 2005, a New York private equity company Stevensons that was introduced by current CEO decided to buy the business from ABC company. The current CEO in conjunction with 45 managers at that time invested with Stevenson to take the company private again. Plastica spent two years under Stevensons stewardship. In 2007, current TMT group headed by current CEO was refinanced by Bank of Scotland integrated

finance and effectively bought Plastica out. Subsequently, Plastica has become an autonomous group by this management buyout as current TMT gained a full controlling share in the business and Stevensons got a good return on their money.

The fund that sponsored that management buyout since 2007 was provided by the Bank of Scotland. However, and in view of all the recent banking changes, the current TMT decided to set Plastica aside from the banking sector. Therefore, it is now with a private equity company called Zebra who is still the financial sponsor of Plastica until today.

It seems clear that the historical and context back ground of Plastica previous investments and its associate routines as founded in chapter 4 have decided the firm's current position and future direction with regard to acquisition decisions. Despite different successive management teams since the start-up of the firm until today, sensing acquisition opportunities and capturing them as described in table 1 later were the main two routines that seem to categorise acquisition decision making process as illustrated previously in figure 5 by TMT to capitalise on the *raison d'être* of the organisation as set originally by the founder and confirmed by findings in chapter five.

As a result of that, the practice of sensing potential opportunities within current TMT seem to have become more of a systematic search and accumulated know how in comparison to the entrepreneur founder as illustrated below

> *"I think they sort of search, find the opportunities, talk to people; I think they are more knowledgeable in some respects. But I don't necessarily, I'm not sure they will spot an opportunity quickly, as KM would have done"* [JB, HRM].

However, as a downside of structuring the process of potential opportunity identification and as a consequence of structured approach acquisitions became slower and, therefore, resulted in less numbers of acquired targets as observed in this case.

> *"That's why acquisition has slowed downed compared to what it used to be with KM. KM has*

done 5 in a year and we've done 3, for the past 4, 5 years" [JB, HRM]

However, despite the quantitative variation in the number of acquired targets, the path ahead of this company remained a function of its current position and previous investment routines within the plastic industry thus; there is a clear historical path which shaped the concurrent learning opportunities through experience as a result of several acquisition episodes.

Learning within the context of Plastica concerning acquisitions seems locked in previous acquisition activities over the past years which result in disseminating a culture of best practice admitting the presence of experiential learning as a base.

Findings in chapter four highlight experience which they developed from previous acquisitions as "best practices". They argue that such practices within Plastica are exchanged through interaction and discussions among management teams across different business groups. In this case participating management team is a pool of expertise which represents a source of joined culture of best practices confirmed by findings in chapter five

> *"the best practice in books and you know, it's* (the best practices) *about us actually interacting as the management team and finding out what each of us is doing and also about taking the best practice from that and having a sort of combined culture if you like throughout the business."*[NT&MA]

Acquisition decision making process as tacit knowledge is translated by the actual doing of TMT in Plastica during pre-acquisition phase. The accumulation of experience has led the current TMT to embark on four acquisitions as illustrated in table 5 below

Table 5: Acquisitions in Plastica between 2006-2012 under current TMT

Acquisition	Year	Identifier	Business unit	Purpose of acquisition
Tyrica	2006	CEO	Commercial Building product	Penetrate new market in the commercial sector
Matyflica	2008	CEO	Residential Building product	Penetrate new market in the residential sector
Sylica	2010	GBDD	Ventilation/Group business	Penetrate new market: ventilation
Pylica	2012	EMD_1	Plastica France	Product range extension, geographic; logistics

Beside the use of systemic approach, the sensing of the above four acquisitions is found in chapter five dependent upon the interaction between six executive directors who represent the executive management team in charge of deciding on acquisition decisions. This team is referred to in this study as TMT. Current TMT embarked on four acquisitions between 2005 and 2012. Three acquisitions: Matyflica, Tyrica and Sylica are in the UK and the fourth one is in France called Pylica as illustrated in table 5 above. However, acquisition of Pylica is still pending finalisation and features on the due diligence requirement list as will be further described in chapter four.

The company considers time as an asset so the management do not waste too much time in analysing and the decision making processes which are streamlined, quick, systemic and analytic activities for supporting decision process. Its corporate culture is bureaucratic where everything is planned to the last details. Actually, it seems that since the company went through various ownership changes, its culture became entrepreneurial like, 'let's do it'. The company grew very successfully and has made a number of acquisitions since.

People, pace, quality products, basic needs, integrity, trust, professionalism and entrepreneurial skills among people are the principles that guide the day to day running of the organisation. However to solve the problem as a problem solving mechanism managers sit down, define it properly then write the case and send it off, after the

approval it is ready for action. Therefore strategists at TMT level play vital role in any acquisition process as they are intelligent, knowledgeable in all areas from the market, operation, manufacturing and corporate finance perspectives. They have unique abilities.

However, the key management practice in Plastica is to review business activities on a monthly basis. According to most informants, issues falling outside the usual ambit of ordinary performance are planned for in greater details. Communication at corporate level is primordial before any decision can be reached; this is exemplified by the group meetings that regularly review whether the company is still on the right track, using one of the informant's own language: "*all the things should be done or the things shouldn't be done*".

The review process includes regular meetings by TMT to assess the merit of potential opportunities as a coping mechanism to deal with market changes. For example, three years ago the market crashed, this reduced the forecast for the new-build in the housing sector in the UK housing market from 150000 to 80000. Consequently strategy had to be realigned to reflect this downturn in expectation for their supplies.

4.4.1 Company structure

The company structure is typically hierarchical as illustrated in figure 6 below. It is a two-levelled hierarchy with the CEO at the summit subordinated by eight executive directors. Two of the executives are corporate level directors namely Chief Financial Officer (CFO) and Group Buisness Development Director (GBDD). The TMT is completed by six executive members and an Executive Managing Directros (EMD) at operational level.
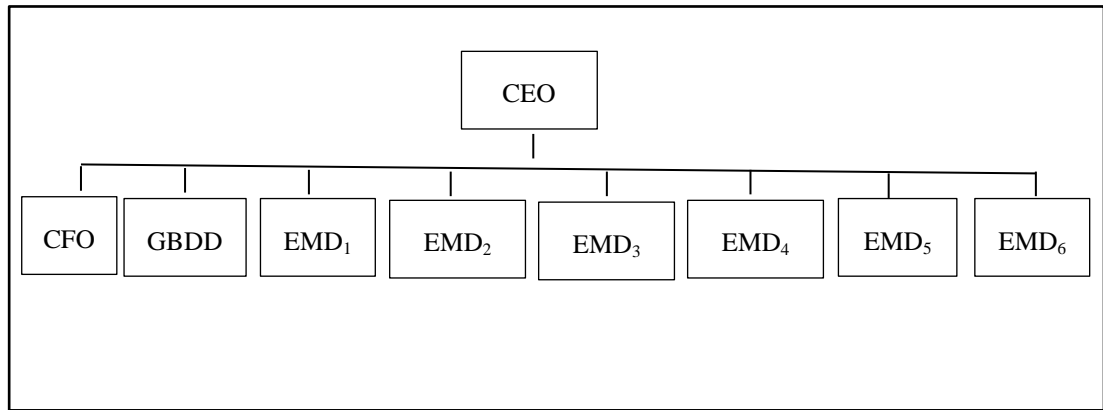
Figure 6: Organisational structure

However, the composition of top management team who compose the board directors that is in charge of acquisiton decision making is constitued of six members only which is described in the next subsection.

4.4.2   Team composition

The team is composed by the current CEO since 2005 of the following members: CEO, CFO and GBDD from corporate level and three Executive Managing Directors who are refered to in this study as EMD_1, EMD_2 and EMD_3. The team is still active until today.

Among assigned duties of the team is to make strategic decisions such as acquisitions. They engage in sensing and seizing of acquisiton oppurtunities. TMT age ranges between 40-60 years old. Therefore, a brief summary is provided below to outline current profile of each member of the current TMT according to availability of information either from direct questioning of informant or availability of secondary data e.g. CVs as in the case of CEO, GBDD, EMD_1 and EMD_2.

Chief Executive Officer (CEO)

The CEO joined Plastica since 2004-to date. His educational background includes BSc with an honours degree in Mechanical Engineering and a number of executive training courses. He served as an executive and non-executive director for both publicly listed and private companies prior to leading the management buy-out of Plastica.

The CEO expertise results from being involved in a number of trade organizations and the council of the British Plastics Federation. He has taken part in several joint initiatives with Government to promote best practice in UK manufacturing. He sat on Group European Executive committee evaluating market strategy and acquisition opportunities and execution which reflect acquisitions as his niche expertise. His experience in acquisition, merger, and disposals with European exposure led to refocus Plastica group after the buyout to become a class leading plastic manufacturing.

His previous knowledge and expertise before he joined Plastica was in leading multi company from 1996-2003 which is a multi-site plastic and metal pipe systems division serving utility and construction industries through direct and indirect channels in UK and Continental Europe.

Chief Financial Officer (CFO)

The CFO joined Plastica since 2006-to date. He is the finance director of Plastica group. He is a chartered accountant. He has been trained with Price Waterhouse Coopers. His previous experience in manufacturing businesses is rich particularly with acquisitions in manufacturing business for over nearly 15 years before joining Plastica. So, in total he has over 20 years of experience in making acquisitions.

Group Business Development Director (GBDD)

The GBDD joined Plastica since 1997-to date. His educational background involves a business studies degree and MBA. His key responsibilities involve amongst others managing group strategic and business planning processes and output. Identification and implementation of key business development initiatives including acqustions where he was invovled in integrating eight acquisitons into business operating structures. His

experience with acquisition decision making started with the current team. He has been envolved in the decision making of the above illustrated four acquisitons.

Additionaly, he has a rich working experience across various number of sectors like sports industry, media, building and construction industry where Plastica is his second role within this industry. Previous experience is mainly in new product developing programmes, marketing, branding and positioning strategies.

Eexecutive Managing Director (EMD$_1$)

The EMD$_1$ has been with Plastica since 2004-to date. His educational background invovles a graduate degree in linguistics combining commercial acumen and financial comptetence with an analytical and numerate approach. He is an experienced managing director for more than 24 years having operated in public and private equity backed businesses. He has a diverse experiences in sales, distribution and manufacturing environments in both UK and overseas. This has led him to accumulate experiences in identifying sourcing from low cost countries. His experience with acqsutions is mainly in integrations. His key responsibilities with Plastica is reporting to the CEO of multi manufacturing sites in the UK, France, Italy and the Arab gulf.

Executive Managing Director (EMD$_2$)

The EMD$_2$ has been with Plastica since 2004-to date. His experience started with construction industry after he joined a construction training programme. He elected to leave before A-levels. However, he studied construction engineering later as a part time student. His experiential learning from the commercial world is illustrated by his move to building products industry initially in ready mix concrete, and then he moved into a precast concrete business where he worked for about 22 years. He joined Alfa Company as a salesman and climbed the ladder to be one of Alfa's executive directors before his recent move to join Plastica under his current work capacity.

Through his prevoius work expereince, he developed a diverse skills set in sales and marketing.

Eexecutive Managing Director (EMD$_3$)

The EMD$_3$ has been with Plastica since 1984-to date. He started his life as footballer. He acquired teaching qualifations in coaching soccer and criket at high schools. This was the qualification that led him into being a salesman as well. As a result, his career path was shaped at early age from being a salesman, to sales manager, and finally sales director where he got involved in the building trade. Among his key responsibilities is securing the sales of the entire business and fit of any potential acquisition in terms of sales.

4.5 Acquisition cases

According to my informants the company acquires businesses through a process of due diligence. This is the stage when issues of post-acquisition start to get into human resources, products and customers in term of integration according to EMD$_1$. This study is concerned, instead, with issues of pre-acquistion decision making process namely sensing potential acquisition oppurtunities.

Structuration of acquisition decision making process in terms of opportunity identification within Plastica is materialised by a number of practices. Although it is aligned with acquisition strategy to serve the company's strategic intent, neither the strategy nor the process of sensing an acquisition is well articulated. Alternatively, they are reflected by TMT social interaction according to findings in chapter five.

Each aquisition is treated as an individual case study. The discriptive summary of each acquisition case study is further provided albeit in limited details to acquaint the reader with the cases since chapter five illustrates in more details the different mechanisms with which TMT handles sensing. The information of each case is elicited from the

interviews and organisaition's website.

4.5.1 Case Study 1: Acquisition of Tyrica

Tyrica is one of two businesses that parent company X decided to trade off. X-Tyrica manufactures a particular material. Plastica has a broad spectrum of processes built up over the years in comparison to its competitors. Plastica has been on the look-out for a manufacturer of pexypipe or polybutalene plastic products, two different types of material, or two different processes. The target acquisition, Tyrica, is an attractive proposition for Plastica as it is making the same plastic product. However, the materials are completely different and the processes that are required to produce those materials were completely different as well.

However the main reason for acquiring Tyrica was primarily to serve the commercial buildings such as hospitals, hotels, leisure centres, sports stadiums, retail complexes, public building plus offices and apartments. The major challenges facing Plastica after acquiring Tyrica were management of timely operations and moving the business with no disruption. The difficulty was to relocate Tyrica from the south of England to Midlands. It had to be moved with no disruptions to the customer whatsoever.

Tyrica was a much more difficult acquisition from an operations perspective, to ensure that the customers' demands are fulfilled. So, the business was successfully relocated and 7 million pounds worth of business from down the south coast to 225 miles away into the Midlands without any delay or drop in customer service.

The acquisition started in Nov 2006 and it took about 6 or 7 months to complete and the deal was finally announced in May 2007. Tyrica under Plastica now offers a unique combination of above ground drainage, hot & cold water, heating, ventilation and water management solutions for commercial sector.

4.5.2 Case Study 2: Matyflica

Matyflica is a leading UK manufacturer of "above and below" ground drainage products, plumbing system as well as under floor heating system**.** The main purpose of acquiring Matyflica was to add value by more savings, in-house production of materials, and space to accommodate new machines. So, Plastica made more savings with the Matyflica acquisition than probably with the Tyrica acquisition because it was about saving human resource and raw material cost.

The major difficulty that this deal faced was at the point of sale and purchase agreement. The purchase agreement is the document that binds both parties to the sale and purchase. The warranty provision in terms of Matyflica liabilities towards faulty products and claims from consumers are also contained therein. So, challenges are described in term of the deal's details. Thus, the difficulty is a sort of "*due diligent where deals are made of or broken*" according to sales manager.

The company as it stands today in terms of Matyflica acquisition after 2009 is summarised by achieving the objectives of the acquisition. The objectives of the acquisitions were to retain Matyflica customers, maintain the differentiation between Matyflica and the Plastica brand and to integrate their sales teams into the product sales team but to remain autonomous from a management point of view to take out the costs associated with establishment material costs and operational efficiencies. It was a relatively small acquisition and therefore, it was not to swallow, whilst it did take a significant management time.

Matyflica acquisition is different from the Tyrica acquisition. Tyrica was buying the company with all its processes, procedures and management team in place and keeping it there. So in terms of acquisition, Tyrica was an easier acquisition because everything was there.

When Plastica decided to purchased Tyrica and Matyflica, it had to look at the

technology that was being used and benchmarked it against the technology that they were using given that in some areas they were slightly better than Plastica and in other areas Plastica had a slight capabilities advantage. Plastica was after the know-how that the company needed to retain from both acquisitions since they operate in market which Plastica was not operating at and therefore, kept the commercial team of Matyflica.

4.5.3   Case Study 3: Sylica

Sylica designs and manufactures a full range of high quality ventilation systems for the domestic and light commercial building sectors. Sylica acquisition went into receivership and therefore, that was picked off by Plastica enabling it to penetrate the ventilation market.

4.5.4   Case Study 4: Pylica

Plastica France is a subsidiary of Plastica UK which is the result of the merger of French subsidiaries. It has boasted a presence on French soil since 1994. Its three sites in France are organised into two operating divisions. One operating division has two sites: one in the east and the other in the west with a further operating division site in the south. In the context of acquisition, the company has been looking to acquire a site which is geographically around the Paris area, as it is a central.

Plastica objective from a French acquisition perspective is one that should allow them to supply product across the whole of the France as opposed to just being limited to certain regional areas. Consequently the company's French management team always had been searching for a strategic manufacturing opportunity further away from the south of France and preferably up in the north.

Geographically, Pylica is a strategic site for Plastica although from in terms of product it is in a market which is not particularly exciting. It manufactures in the main basic

land drainage items; this is considered as the absolute bottom end of the spectrum in terms of Plastica's product line.

The biggest challenge in the acquisition of Pylica was the quality of earnings in France and the profitability of the business. Such concern is explained in terms of market forces since distributers in France tend to exercise greater power over the suppliers leading to them controlling the manufactures in terms of pricing decisions etc. However, it was decided that Plastica had to grow further in the French market.

As a result the company's approach was to *'sow a seed'* [EMD1], so not to go with the full mode proposal in the first instance but just to look at opportunities. These opportunities should be at the right place, have the right products and to have the scope to grow. Following careful examination Plastica *sowed* the seed and brought the idea to the table as a tangible proposal. Pylica is still pending full acquisition awaiting the fulfilment of due diligence.

Chapter five: Findings and analysis

This chapter aims at reporting findings from inductive analysis of collected interviews. It is divided into three main sections. The purpose of this chapter is to present empirical findings which emerged from the inductive analysis of qualitative data from primary and secondary sources of data. These findings are presented in three separate sections.

The first section described existing systems and routines which Plastica have in place and how the TMT use them to facilitate acquisition decision-making; for example, periodic executive meetings, an opportunity identification list and due diligence.

The second section reports on emerging themes from inductive analysis of data. Consequently this section summarises and explains the presence of social roles as significant related patterns of behaviour in TMT during sensing phase. Furthermore it highlights the importance of the social aspect of human interaction when dealing with an uncertain future. Expectations and anticipated expectations, among TMT during the presentation meeting of the sensing phase, capture the social aspect of the decision-making process.

The third section describes the nature of relationships between roles during that phase. It draws attention to the importance of emergent relationships, as a result of TMT human interaction at aggregate role levels, in the social construction of an acquisition decision-making process. Dissension-consensus is two stable concepts that seem to lead to the construction of acquisition decisions in TMT during sensing phase.

The first section describes existing systematic and analytical activities of sensing and seizing acquisition opportunities. Following that, empirical inference which supports the effect of acquisition path dependency of Plastica in terms of developing experiential learning is provided. The second section reports evidence from interviews about the presence of five social roles during sensing phase which implies a complex social TMT

interaction as a mechanism the team uses to handle uncertainty of acquisition decision-making and lack of information during that process. Such findings reveal social interaction of TMT to be an integrated part of successfully sensing potential opportunities during the acquisition decision-making process. Following that, a description of different dimensions of interacting roles during sensing phase is provided. The third section describes the nature of emerging relationships between interacting roles as TMT-related patterns of behaviours in terms of specific combination of roles as found from the interviews across the four acquisition episodes.

5.1 Patterns in decision making process for acquisition

This section is composed of two subsections. The first discusses existing patterns of the decision-making process within Plastica in terms of existing analytic and systematic activities which TMT use to facilitate the acquisition decision-making process. Such activities are routinized practices which seem to evolve as a result of experiential learning given the historical context of the multiple acquisitions which the firm Plastica has gone through in the past as described in chapter 3.

The second sub-section discusses the apparent learning associated with the repetition of systematic activities. Although it is difficult to understand the roots of experiential learning in organisations, the notion of firm path dependency, as explained in chapter 3 by the historical growth of Plastica through a series of acquisitions, supports the existence of experiential learning effect on the TMT acquisition decision-making process in Plastica. Main findings support the collective nature of the acquisition decision-making process in Plastica characterised by some intriguing social patterns which managers use as mechanisms to stabilise the uncertainty associated with acquisitions.

5.1.1 Systematic and analytic activities for supporting decision making

Table 6 below lists the number of analytical activities that the firm performs in a regular and repetitive fashion. These also suggest that the company has developed a systematic approach for supporting the decision-making process required for effective sensing and seizing of acquisition opportunities.

The identified activities in table 6 suggest that the acquisition decision-making process consists of different systematic and analytical activities in Plastica. Such activities were developed following the new management buyout in 2005 as described in Chapter 3. Thus, acquisition decision making becomes more structured during the two phases of the acquisition decision-making process, i.e. sensing and seizing through the use of distinctive analytical tools, techniques and procedures. These tools seem to help TMT to embark on acquisition deliberations which are uncertain by nature with more confidence. The heavy reliance of TMT on the use of systemic approach is evidenced by their repeated use across the four acquisition episodes.

Table 6: Systematic and analytic activities of pre-acquisition decision making process in Plastica

Systematic activities	Description	Characteristic evidence
Periodic executive meetings	TMT review the business on regular basis which become a systematic activity. The list of opportunities is reviewed periodically during executive meetings.	*"We review probably quarterly the list of companies".*[CEO] *"Acquisitions are discussed as required to ensure that we are aware of any opportunities that may arise or monitoring potential targets. We have an opportunity under consideration at present and have made an indicative offer following a number of discussions to consider the relative merits of the business, its market position and how we might improve its performance. This has been done through formal and informal discussions over a number of weeks.* [EMD$_2$] *"Well it's every month actually. We have a weekly call and then we have a monthly meeting."*[CEO]
Formal lists	TMT use two formal lists assist TMT during pre-acquisition decision making phase to identify opportunities and capture them.	*"Acquisitions in terms of how we find them is one thing and for us it is actually quite straight forward because, we know our focus business, we know the areas where we want to make acquisitions. We got our shopping list."*[CFO]
Opportunity identification list	This list is developed as a result of original financing plan of the business original buyout in 2005 to identify areas of potential acquisitions in accordance with business focus. It is updated by the GBDD as a project sheet which represents a range of potential business areas for Plastica	*"As Sylica, so that company was already on our list. We've got a list of 80 or 90 companies"*[CEO] *"It's really just what we put on the list and its I think we would have defined our core competence and we are looking to buy businesses in our core areas and geographies so it's pretty simple for us to be honest"*[CFO]
Due diligence	Due diligence list is a list of mainly financial indicators that reveal assets and liabilities, legal law, environmental law or pensions of suggested opportunity which is used at the second phase of pre-acquisition decision making process.	*"We have a due diligence check list and they would work through that, so there is a check list of things that we would want to go through with the target company and each of the specialist will have their own part of the checklist to go through. And on the finance side I would talk to the finance director doing the work and say I think we need to know... these are the key things that we should be absolutely sure of about."*[CFO] *"Information gathering goes into due diligence"* [GBDD]
Presentation phase	A phase which launch sensing meeting as a subset of periodic executive meetings once an acquisition opportunity is found for further discussion by all team members. Sensing meeting is a practice which is often held to initiate acquisition decision making process. However, it is not as regular as the periodic executive meetings.	*"...presentation phase ...there is a suggestion...someone will say this is an opportunity"*[EMD$_2$] *"the original meeting when we said we'd try to go ahead"*[CEO] *"He just put together short paper explaining about the business, about the people, about the products that it makes and some of the information about the market that it's operating in."*[GBDD]

Executive periodic meetings are held biweekly, quarterly and semi-annually, in addition to the annual strategic meetings, as illustrated in Figure 7 below. It is a routine activity that is practiced repetitively by TMT to revise the business strategy, including acquisition opportunities. Such meetings are evidence of agile process management activities that are invented by current TMT to enhance the process of acquisition decision-making.

All members of the team engage collectively in the periodic executive meetings to systematically revise business status in view of available resources, capabilities and unfolding exogenous events. Such practice seems to provide them with an advantage of equal and mutual identification of business gaps at group level and therefore, different views can be consolidated constantly as one member explained:

"We always talk about the list on a monthly basis. It's on the list of... We might have only a simple no, yes, no, no contact, not heard of anything. It might only take 10 minutes, or we might have, "This one's looking interesting again" or "This one needs adding on to the list." So, we can go from a very short discussion to a more lengthy discussion depending on what's going on" [EMD$_2$]

Interestingly, acquisitions, as illustrated above, are discussed as required to ensure that the team is aware of any opportunities as they may arise or monitor potential targets. Periodic executive meetings seem to have a number of merits. The collective acknowledgement of business gaps shape TMT prospects on business as a team. Therefore, a common understanding is achieved collectively through executive discussions. They share their accumulated experience and knowledge through discussions and exchange of ideas. Each executive plays a role during those meetings that mirror their functional background.
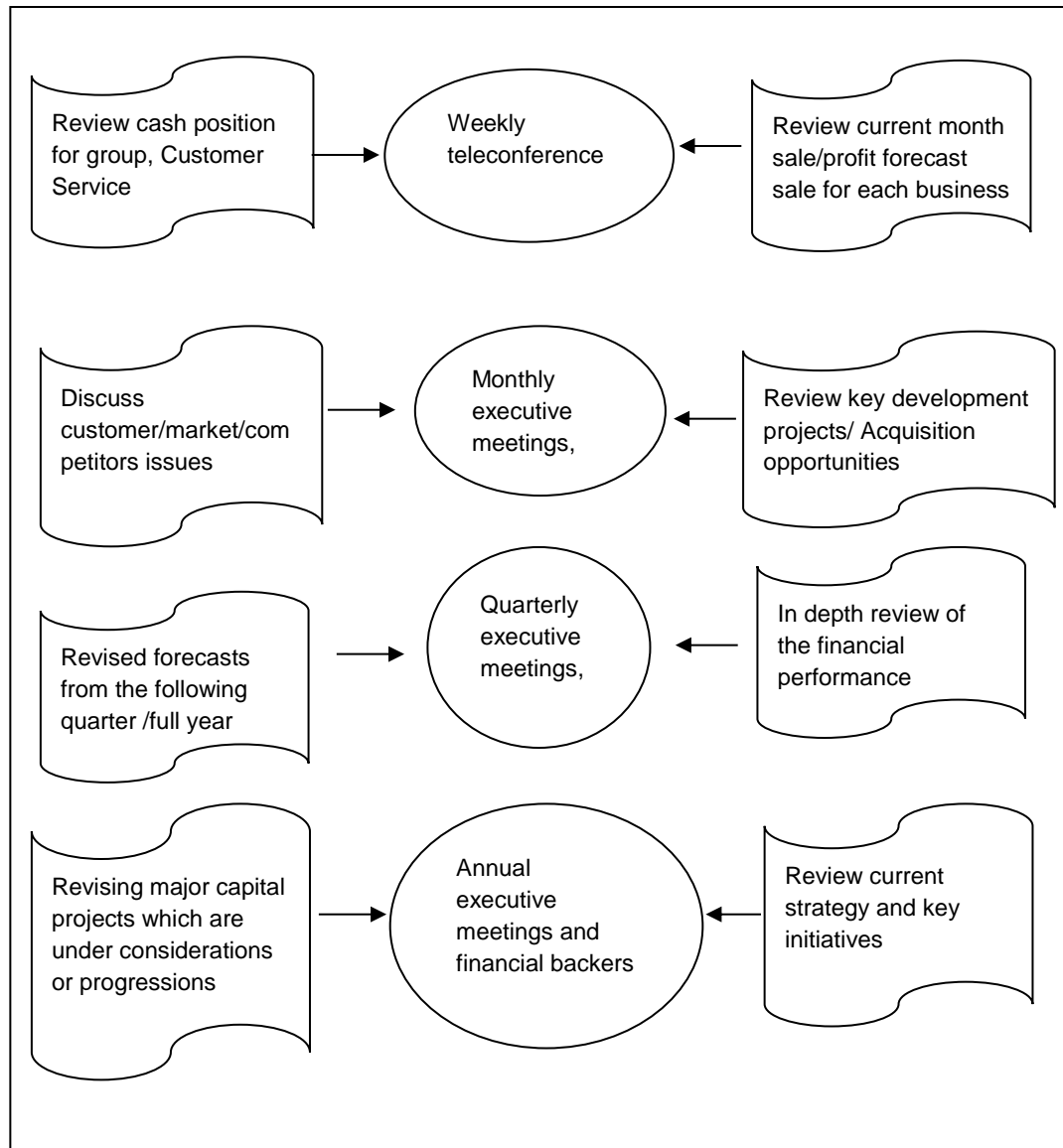
Figure 7: Periodic executive meetings as an enabler of pre-acquisition phase

Discussion of any potential acquisitions aligned with contemporary business needs is a constant part of the meeting agenda. The significance of those meetings to this study is that they are found to transform hidden assumptions of TMT members through the development of a common understanding of business issues at the highest strategic level. This is evidenced by the consensus of team members on the four acquisitions of this study on which they were all in agreement, as illustrated above.

The formulated hidden assumptions about business in general and acquisition strategies in particular as a consequence of such regular meetings are considered to have an

important prerequisite effect on the initiation of the pre-acquisition decision-making phase. During those formal meetings, executives acknowledge or reason business needs as a result of internal rational diagnostic procedure which captures changes in the external environment using such lists.

Opportunity identification list as illustrated in Table 6 above is the first tool that TMT use in their periodic executive meetings when they discuss business status. Thus the socio-material interaction between managers and the list provides a framework from which subsequent behaviour is framed. Executive discussions using such lists initiate the need for areas of development using acquisition opportunities once they become available. Whereas the due diligence list is a list of mainly financial indicators that reveals assets and liabilities of suggested opportunity at the final stage of the acquisition decision-making process. Both lists are formal tools which TMT use during the decision-making process of each acquisition, as illustrated in Table 6 above, and will be discussed in more detail.

Identification of potential opportunities is routinized in Plastica as a consequence of the last management buyout financing plan. This plan was established to draw up a road map for the company. All informants mentioned that they have a road map which they discuss during their routine executive meetings

> *"So this is, if you like our roadmap **..**, and that's before I even start, that was done because I joined Plastica in 2004 and we developed, you know, some of this work I've done externally anyway, that you know we developed this plan between executive and sort of grouping, we developed our plan with some other, some other, we did have a bit of consultancy, because I did it with sort of the people who financed"* [CEO]

As indicated in the above quote, this map originates from the original financing plan prepared by the current CEO with the aid of external consultants and financers of the

buyout of the company. The purpose of this road map is to guide the team's search for opportunities aiming to further develop the business.

The list is updated by the group business development director based on a constant formal analysis of the market. Therefore, it can be argued that making sense of potential opportunities is urged by disciplined analysis of the market and guided by a clear focus of the strategic intent of the firm.

Indeed, the Opportunity list represents an "opportunity reservoir" to Plastica. It serves the purpose of providing managers with a visual rendering of available opportunities which seems to guide their initial conception of what potential opportunities might be as asserted by one of the members:

  "this is really the market sector we are in. these are the kind of adjacencies that we can look at"
  [EMD2].

It aids them to highlight potential opportunities as potential gains and link them to originally developed business needs. Of particular interest to this study is the list of companies which the team revise almost quarterly, as confirmed by the CEO

  "We review probably quarterly the list of companies" [CEO]

The significance of this list is that it materialises the systematic and analytic aspects of collective opportunity identification practices in terms of sensing potential opportunity by TMT. At this point, opportunity identification appears to be simple and direct. Acquisition list is a coordinated effort in Plastica by the group business development director (GBDD). It is a project sheet which represents a range of potential business areas for Plastica. It is best described by the following quote from one of the members:

  "So that sort of frames if like what we're doing, we continually review, we have a sort of project sheet that says, 'right, where our core focus product areas, where are the development

*opportunities in ……… (*The industry*) and where do we have holes in either our market, in our ability to get into that segment of the market? Or in our ability to have product'*. [CEO]

To confirm that, all acquisition episodes - in this case three of the four acquisition episodes of this study - were originally captured on the list as adjacencies to Plastica before the TMT decided to embark on sense- making of any of them. Factors that contribute to identifying a potential acquisition involve thorough assessment of business needs and the presence of propitious circumstances of a particular name on the list, such as sold ability

"We know what those opportunities are. And I would consider it, I would consider our strategic, intelligence has failed if a corporate finance broker phoned me up tomorrow and said 'look I've got this company for sale and I think it would be a great fit with Plastica and I said, 'I don't know them', and it turned out to be a great fit with Plastica then I would be shocked that somebody, that we didn't know who they were …I would be very surprised, you know, because we put a lot of effort into making sure that we do know"[CEO]

The confidence in the ability of the team to notify the existence of available potential opportunities could be attributed to the ability of the team to identify development opportunities from within the business to fill in existing gaps, either in market share due to selling deficiency or product deficiency due to lack of product in an existing market. These rationales guide their active search based on their accurate understanding of their own business capabilities or the lack thereof. This reflects a classic example of the significance of sharing common understanding about business needs at group level to adopt acquisition strategy as business development opportunity, as captured by one of the team members:

"We might have a selling deficiency... in other words we have a product and we can't sell it because we're not established in the market. Or we have a product deficiency where we can sell in the market, but we don't have the products there. So, what we normally do by

positioning… is to fill all those or one of those gaps and all those, and all of the acquisitions

that you talked about sort of fit into one of those two categories "[GBDD]

Potential opportunities are defined by company core competence, as can be seen from the above quote. Therefore, capturing any potential business that fits in business definition becomes a matter of comprehensive market search to update the list

"It's really just what we put on the list and its I think we would have defined our core

competence and we are looking to buy businesses in our core areas and so it's pretty simple for

us to be honest" [CFO]

The list is used in every board meeting as a rolling list which might not have new names in each meeting. However, it seems that each might serve as a different new potential opportunity in each meeting:

"…And even now we keep on running lists of potential acquisitions at every board meeting. We

will talk through an update, but it is the same kind of rolling list. There are no lots of new

names coming on all the time and lots of new ideas. You know, it is kind of, this is really the

market sector we are in. these are the kind of adjacencies that we can look at" [EMD2].

Another aspect of this list is related its subsequent dynamics among TMT. Opportunity list is not a static list. It is neither static in its composition as it gets updated routinely, nor in action, as in the example of acquisition Tyrica which was embarked on by TMT to fill an obvious gap:

"It was an obvious gap. CEO knew it was an obvious solution. But it was the question of,

"Well, can we make it work?" … There wasn't really a huge amount of evaluation debate. You

know … Tyrica*, if we'd not acquired it, it would still be on that list. It would still be there as a*

business that we'd like to acquire" [EMD2]

It seems clear from the above quote that team agreement on acquisition of Tyrica was recognised collectively. This means that the Opportunity Identification list is a tool

which provides the team with options that attract their collective agreement to business solutions. However, even an obvious gap in the eyes of all members of the team and the presence of potential solution on the list (i.e.Tyrica), the process of acquiring a company remains an uncertain and potentially risky affair. Naturally this raises the question among the team members as to whether it can work; consequently team discussion around feasibility of such opportunity is initiated. All members described a complex process in terms of how they acted during their interaction when they embarked on discussing a listed opportunity summarised as follows:

"All of us we will say, you know, we should do this but when it comes to actually, it's like spending your own money you know. It's when you could be convinced that that is the right one so you might say, you know, I need a new car or I need this but actually before you go and buy it you look very carefully under the...you know if you are buying a second hand car you might say I need to buy another car but you know I am going to have to be persuaded that this is really that car that I want to put my money into. So, I think you know he (CFO) *doesn't question the strategy, it's the vehicle, the particular choice of company and that particular acquisition and the value we paid for it...."* [CEO]

Further evidence of systematic and analytic activities in Plastica is the use of due diligence list during the acquisition decision-making process. It is a rational list which is used during the second phase of the pre-acquisition decision-making process. It is composed of a set of indicators and variables which aid the executive team in reaching a final decision about proposed acquisition. It is handled by specialised expertise in the company; one of the members reflected as such:

"We have due diligence check list and they would work through that, so there is a check list of things that we would want to go through with the target company and each of the specialists will have their own part of the checklist to go through. And on the finance side I would talk to

the finance director doing the work and say I think we need …you know…these are the key things that we should be absolutely sure of …about" [CFO]

It is an essential tool for TMT to operationalize the second phase of the acquisition decision-making process, i.e. seizing. In other words, it is a tool which aids them to conclude the dynamics of the sensing phase of potential opportunity and therefore embark on capturing the acquisition.

It is an essential component of the acquisition decision-making process regardless of the size of acquisition in terms of business scope or financial commitment. The acquisition of Sylica is a good example. Speed of decision was crucial to finalise the deal. The whole decision-making process was accelerated, but a separate due diligence had to be made supported by a planning effort to address certain check points on the list rather than just a financial check list. In this context the CEO made the following reflection:

"You know, although we paid very little for it, you know, when then developed our plan and right we're going to do this and we want to invest in it so we'll do it. So, there was almost a separate phase of due diligence here because of the speed of which we bought it" [CEO]

In other cases, due diligence is performed as a combination of external and internal audit, covering company assets and liabilities, finance, market and sales. The CFO explained that a:

"…comprehensive due diligence is the next step, it's a mixture. We use external auditors on some of the financial work, we will use market research people on some of the bigger acquisition…It's a bit of mixture some internal and some external. We always do some external financial due diligence on every acquisition" [CFO]

However, it was observed from qualitative data that some other factors will have impact on the seizing phase, such as ownership of the target business. It was noticed that privately owned businesses were more difficult to be captured in terms of the two main

phases of the acquisition decision-making patterns, which are sensing and seizing. Examples include acquisitions Tyrica and Pylica, as explained by the CEO:

"So buying from …always buying from private individuals is more difficult because they take things much more personally and they don't necessarily attach the same level of sort of rationality and logic to any adjustments that's come out because they still want the price. You know if they've gotten in their mind they are going to get this price you know" [CEO]

Interestingly, such difficulty gives rise to the possibility of aborting interpreted recognised acquisition irrespective of favourable initial assessment substituting absolute rationality with *fate*. For instance factors that can impinge on the completion of a deal can include instances where the owners genuinely change their minds. This factor is not a matter that can be handled individually or collectively. However, it is a risk which poses a threat to the whole pre-acquisition process as some members observed:

 "*Don't, yeah well I mean it's not, you know it's not perceived as* (EMD_1) *...or they are not performing or you know...*EMD_1 *brought the acquisition to the table if the vendor changes their position, then you know we will walk away.* "[GBDD]

However, according to the accounts of all the team members due diligence is about the reinforcement of a concluded decision of the sensing phase and it is a characteristic of this stage. Such conclusions were mainly the outcome of TMT social interaction based on a small amount of gathered information from the target company. At this stage, information is in the form of hard fact, one member was happy to elaborate:

"*Due diligence for us again, you know we sort of, we have gone through this with sort of the rough opportunity of the scaling rationale. There were some information gathering from the other party before we got into real hard due diligence. Due diligence reinforces these conclusions and as I said, should raise any show stoppers and anything that from legal law, to*

environmental law, or pensions and all of these show stopping things really is due diligence to my mind"[GBDD].

Due diligence is tool that is used to reveal any central and peripheral hazards to the deal. As described above, it reveals any stoppers as well. Such stoppers are not only financial, as usually known in accounting terms as one member remarked even "Information gathering goes into due diligence" [GBDD] but might also be issues related to law, the environment or pensions, as indicated above.

Acquisition of Pylica provides an example where sensing phase was achieved one year before. However, seizing, which is the decision to acquire the business, is still not complete because of pending due diligence. The French company has to satisfy the due diligence checklist as one of the team members described:

"The reason the acquisition isn't been finalised is very simple, when we did the final stage of due diligence in France you have to have a permission to manufacture on a site, and then you have a permission to manufacture at a certain scale and they did not have all the necessary permissions…so they have had to go back and reapply to the local government and to get all the environmental tests on and all the necessary paper work and they have only just come back to us on this last week...so that's being six months ...at least six months and still not finalised"[EMD$_2$]

Hence, failing to fulfil the items of the due diligence list might lead to the deal being aborted or it might present an opportunity for the acquirer to negotiate a lower price based on new market conditions. One member makes the following point regarding the acquisition of Pylica:

*"In fact he (*owner of Pylica*) is in a weaker position now because of the sales and profitability have gone down…and the French market is forecast to be very difficult for the next 2-3 years"*[EMD$_2$]

The importance of due diligence for Plastica to seize potential opportunities is recognised as an essential phase, in comparison to other businesses where due diligence is not a decision-making element. Another team member observed that:

"...we couldn't take the place without those permissions in place because it is too risky for us. They did not know they did not have the permission ... they bought the business from the Alexander group ...at the time they bought the business they did not realise that they did not have the permission and they did not do their due diligence either "[EMD$_2$]

Another interesting insight with regard to due diligence is the fact that it is not about availability of acquisition opportunity or the rationale of embarking on acquisition as antecedents, rather it is related to its comprehensiveness to include all internal stoppers, therefore, due diligence is an inspection tool to scrutinise a made decision. This point is reinforced by one member's assertion that:

"...due diligence is...you know to me if you have got the opportunity and the rationale you will understand that due diligence will bring us if there is any show stoppers in this that you haven't thought of or you weren't aware off... that is more internal to the business" [GBDD]

Although due diligence is supposed to be a formal informative tool, it has its limitations. However, it is perceived to be a supportive tool that strengthens the company's position in terms of last minute negotiation with other parties as external to the team during the decision-making of acquisitions, e.g. administrators of acquisition, the CEO brings this point home as follows:

"yes I mean, yes because partly the administrator, the administrator is trying to do the best deal for his shareholders, so his, because he's been bought in, he has a duty and our view was, because we started to use due diligence, you know, we started to realise that this wasn't quite as rosy as we thought it was and therefore what we said actually was, 'I am not sure about this' and also we've been advised by the lawyers because of the way that the company had gone into administration we were going to pick up more personnel cost than we anticipated. So, we started to uncover some things that perhaps didn't smell so good, so you know, that's why we

got into, 'you're either going to do this or not on our terms Mr Administrator or we'll walk

away'. So it was quite a tense, a tense period" [CEO]

The example above describes the stressful due diligence related to the acquisition of Sylica albeit the smallest acquisition among the four acquisition episodes. However, it was the most complicated post-acquisition phase in terms of integration, despite the use of both lists as analytical tools for the four acquisition episodes. This means that the use of due diligence is infinitely significant to the decision-making process of acquisitions and defines the seizing phase regardless of the size of acquisition.

From the above analysis, due diligence is an analytical tool which helps the company to seize sensed acquisition in many ways. It reinforces or screens out TMT conclusion of interpreted decision during sensing phase. Whilst the opportunity list can be idealised and interpreted in so many ways the due diligent process is an objectified reality, however the two are complementary as one member explains:

"You know, I don't really think of business solely as due diligence. I suppose it is in a way but

not to my definition of it" [GBDD]

The use of both systematic and analytical lists represents systematic activities that are performed during both phases of acquisition decisions which both define the collective acquisition DM in Plastica.

Finally, a subset meeting of periodic executive meetings in Plastica is found to be common practice in every acquisition episode as one member laments:

"…presentation phase …there is a suggestion…someone will say this is an opportunity"

[EMD$_2$]

It is referred to in this study as a presentation meeting. It is practiced as a contingency once an opportunity becomes available and identified by an individual. Therefore, it could be argued that it is enacted under specific condition which makes it more of an

emerging practice rather than an on-going activity. The enactment of such practice announces the kick-off phase of a collective sensing meeting. It initiates sensing phase, but it is not a periodic routine in itself.

In this particular meeting, the team is made aware of the issue ahead of the meeting. It is a discussion of potential acquisition opportunity once it becomes available. The purpose of this meeting is to have all team members subscribe to and buy in at different stages of the acquisition decision-making, even if it was initiated by a single individual, and assure subsequent allocation of resources and commitment, as the CEO describes in the case of acquisition Pylica that was brought initially by EMD_1

> "*I think it's less than ...you know the six... it depends. EMD_1 is responsible for France so it would be his baby. ... (GBDD) who you've met who is sort of business well of a director who looks at all our development opportunities would be the second champion if you like, and me third because I have been more involved in the line with it. The others have their own businesses to run, but sit on the executive committee and we try and get subscribed, we try and get buy in from all of those guys in any of these sorts of steps forward. So it's got to be an allocation of resources that everybody thinks is...*" [CEO]

Although acquisition is an acceptable strategic choice for TMT in Plastica, all four acquisitions in this study were observed from the interviews to start as a matter of dispute at the level of a particular potential opportunity among team members, as discussed early in this section.

Despite the collective understanding regarding the use of acquisition as a growth strategy and even fill strategic gaps, these decisions go through a process of open discussion among the team in order for them to be recognised and indeed endorsed by the six of them. It is more about the specialisation and expertise of the executive committee where the CEO, CFO and GBDD have a decisive role based on their functional role and background in the firm as explained by one member:

*"I think with CEO and CFO and GBDD, they are more focused on the acquisition side… position side and leave the businesses to be run by the MD's and every MD has; when KM (*the founder)* was in charge, he controlled the MD's of every business, very tightly. CEO is very much as, you know as long as you are doing the job and you are getting the results we need, and then it's up to you how you do it. KM would say okay you will do it my way. So I think it's a very different style."*[HRM]

The above quote illustrates the progression of the acquisition decision-making process in Plastica as a facet of an overall evolving management style. Compared to the founder who was in favour of more controlling managerial style, current management practices are more collective, based on trust and distributed leadership as evident by the practice of presentation meeting, to involve all members.

The social interaction among the TMT itself is a representation of learning through discussion, interaction and reflexion of past experiences of individuals with acquisitions. All above systematic and analytical activities and practices in Plastica are suggestive of the presence of experiential learning due to repetitive doing, as will be further described in the next section.

5.1.2 Learning associated with systematic activities

Classical views on dynamic capabilities in Chapter 2 highlight the significance of path dependency and evolutionary patterns through experiential learning within a firm. In view of available evidence in the above section, experiential learning can be inferred from the repetitive undertaking of systemised activities and repetitive use of rational lists with every acquisition.

The collective nature of the acquisition decision-making process as seen in Plastica stipulates the presence of systematic repetitive activities. This implies the notion of routine suggesting experiential learning among TMT emerges as a consequence of

repetitive practice, team knowledge and diverse experiences as reflected in the own words of one member:

> *"CEO, CFO and GBDD... have got a very detailed knowledge of all the businesses because they have got to get involved on a monthly basis and certainly on a quarterly basis and looking at all the businesses anyway. EMD_1,EMD_3 and myself have...we kinds talk to each other all the time outside of the meetings anyway, but we would have an understanding of the kind of general strategies, the general issues because we have weekly conference call meetings, we have monthly exec meetings, we rotate the venues, we rotate the major issues to be discussed. So, it's general communication. I won't say it's detailed, it's at a level that... Well, it's going on. I understand what's going on as an executive member I need to know a little bit, but as a shareholder, as long as I've got the confidence, they're trying to develop the value of the group, then I'm happy ...And at any given time, with the number of businesses and markets that we're in, some are up and some are down. I've been in the up box; I've been in the down box. When you're up you think you can only go down, when you're down you think the only way is up, so..."*
> [EMD_2]

Interestingly, learning seemed to be the dominant feature instead of planning and rationality during those sensing meetings. The eclectic mix of experience accumulated by the executives from acquisitions encounters has resulted in the creation of a unique pool of specialised related knowledge.

Accumulation of experience sharpens intuition which plays a significant role in the decision-making process of acquisition. As a collective act, sharing non-cognitive based experiences can substitute planning and rationality under absolute uncertainty and high level of ambiguity as the CEO reminds us:

> *"I've been in this industry for a long time, if somebody says something to me I've got, you know instinctively have a probably that's a good idea or a bad idea"* [CEO]

Interestingly, the subsequent effect of experiential learning as past accumulated experience is effectively evidenced in one of the acquisition episodes in this study; acquisition Sylica was advocated by EMD_1 who supported the GBDD in his proposing of Sylica to the rest of the team members. One member notes:

> *"Because in a previous life I have acquired businesses that have gone burst and if you move very quickly to secure the customer base you can generally pick up a business from not a lot of money and get a good return on it. And this was something which would give ventilation critical mass, so I just said to Paul if you want to go for it, then go for it"* [EMD_1]

Acquisition of Sylica is one that went into administration as alluded to in Chapter 3. The supportive consultation by EMD_1 advocating his colleague, GBDD's intention to propose acquisition Sylica despite its bankruptcy, stem from his previous experience. This presents evidence on the impact of related business experience when shared among TMT.

Hence, the exchange of different opinions and shared views during executive discussions to make sense of potential opportunity provides in itself a learning mechanism for current executive team members.

> *"the best practice in books and you know, it's* (the best practices) *about us actually interacting as the management team and finding out what each of us is doing and also about taking the best practice from that and having a sort of combined culture if you like throughout the business."*[NT&MA]

All informants described the experience they have amassed from previous acquisitions as "best practices". They argue that such practices within Plastica are exchanged through interaction and discussions among management teams across different business groups. In this case, the participating management team is a pool of expertise which represents a source of joined culture of best practices.

Individual experience of managers are shared during the socialisation of sensing meetings is an illustration of learning in practice as the TMT interacts in Plastica during pre-acquisition phase.

Management interaction as a learning mechanism showcase how tacit knowledge is made explicit and in turn internalised as the collective learning capacity of the team expands. Although individual experiences are a product of history in the past, it is shared in the present during periodic executive meetings and during each sensing phase. Therefore, shared experience in terms of knowledge conversion and articulation becomes collectively manifested and is at the forefront of any acquisition decision-making process within Plastica.

Available evidence on the advantage of experiential learning when shared among a group of experts is the ability to cover individual limitation of experience and knowledge in particular areas which may cause hesitation and potential rejection in uncertain or novel circumstances. In the case of the acquisition of Pylica the CEO underscores this point quite eloquently:

> *"So but, I don't really know enough about the French, the court, I didn't until that stage. I don't know more now, so I don't have a personal experience of running a business first in that segment. And secondly buying business is like, buying business from private, small business from private owners are often difficult. So it's in a sector, you know I don't have direct experience in that sector, it's the small business from private owners which is difficult. It's in France where they generally tend to be low margins. So in myself as I say my instincts see, cautious…"* [CEO]

Additionally accumulated experience provides a control tool enabling Plastica to control the entire progress of the acquisition process. Hence, individual experience with acquisitions of the TMT members gives them a collective advantage over the

target company which may lack the same experience in terms of systemising acquisitions. This potential lack of learning was spotted by one of the team members who commented:

> "We tend, I guess yeah we would like to think we can control it and try and take them, you know particularly most vendors have not sold, and you know many have not sold a business so they are going through something that is new" [GBDD]

It seems from the above illustration that repeated acquisitions provided the team with the advantage of controlling the process in comparison with vendors who lack similar experience.

Another significant factor in explaining accumulated experience is attributed to path dependency. The historical background of Plastica in term of previous investments, as described in Chapter 3, and the development of systematic activities had determined the firm's current position and potential future direction.

It seems that the path ahead of this company remained a function of its current position and previous investment activities, as evidenced by the four acquisition episodes of this study mentioned in Chapter 3. There is a clear path dependent which shaped the concurrent learning opportunities through experience as a result of several implementations of acquisitions.

Learning within the context of Plastica is locked in previous acquisition activities over the last 33 years, resulting in the dissemination of a culture of best practice based on experiential learning building on the core competencies of the firm. This leads to broadening the resource base of the firm as observed by some members:

> *"So we are technically reasonably competent, we're good manufacturers, we are no nonsense and we have a certain philosophy to be best in the marketplace which means we are not the cheapest. We are not the most expensive but we will deliver professionally engineered solutions*

without too much fluff into our customer base. That's how I think the market likes to deal with us, because we're straight talking and we're reasonable people but extremely professional and very competent in what we do. And I think that kind of philosophy flows all the way through our management culture of the group" [NT & MA, MD]

In conclusion, path dependence and experiential learning have resulted jointly in the incumbency of systematic and analytic activities which TMT use as tools during the pre-acquisition decision-making phase and illustrate the decision-making of acquisition as a capability of Plastica. The use of such tools reflects a distinctive practice within Plastica on one hand, and, on the other, demonstrates the agile ability of TMT to customise the decision-making process in accordance with their accumulated experience and course of interaction, mainly during sensing phase.

Interestingly, the apparent simplicity of the opportunity identification list does not necessarily reflect a simple decision-making process of a particular acquisition just because it is on the routinely revised list, despite its collectiveness. This might be understood in the context of the nature of discussed problems like uncertain acquisitions.

Acquisition is uncertain, on one hand, and a lot of information may be missed while executives start discussing a particular acquisition. On the other hand, the conventional result of acquisition decision will commit substantial resources for a long time. Empirical findings of this study reveal the collective nature of sensing phase by some intriguing social patterns supporting a notion of collectivism. Collectivism as a complex social phenomenon suggests that tacitly-accumulated managerial experience transforms into different types of knowing instigating a particular act during the pre-acquisition phase of the decision-making process. This was captured in the form of the overt behaviour of TMT during their interaction at sensing phase. This behaviour is represented by intriguing social patterns; these are discussed further in the following section.

5.2   Social roles at TMT

This section provides evidence from inductive analysis of the interviews with TMT members about their interaction during presentation meetings. It provides evidence on the complex social interaction among team members while they try to make sense of potential acquisition opportunity. It describes their behaviour during sensing phase and reveals factors that underscore those behaviours.

Social roles are captured as emergent themes from the inductive analysis of the interviews which revealed the role of TMT in terms of identified particular-related patterns of behaviour in the construction of acquisition decisions during sensing phase. Drawing from role theory (Banton, 1965) in general and role play theory (Biddle and Thomas, 1966) in particular, provides a more in-depth explanation of the effect of TMT team social interaction using role related behaviour on the construction of such decision as a result of specific combination of social roles.

Presentation meeting during sensing phase provide the milieu of interacting roles. Interaction takes the shape of verbal social interaction among executive team members. For the purpose of this study, the social interaction among team members is labelled "team interaction".

Team interaction during sensing phase within Plastica is about exchange of thoughts and ideas through verbal communication. However, their interaction seems to be building on a history of shared common values and mental models of the business that developed as a consequence of the learning activities previously discussed which shaped the common way of doing things and glue the team together.

Table 2 below provides a systematic review of TMT interaction during sensing phase in Plastica. This review is performed inductively by exploring related patterns of behaviour as constant repetitive patterns across the four acquisition episodes which emerged from the interviews. That is captured at the level of individual behaviour of

each executive member of the team during sensing phase. Actual behaviour of individuals during sensing phase is compared to the related pattern of behaviour of the individual's job role.

Nevertheless, social interaction during sensing phase seems to be underscored by the interplay of individuals' expectations and anticipation of such expectations (Biddle and Thomas, 1966). These expectations and anticipations seem to influence the behaviour of individual team members as a first sign of distinctive feature of TMT interaction during presentation meeting rather than the predictable influence of job position on behaviour alone as observed by the CEO:

> *"I mean I think by nature most of us will be...starts being slightly negative .... So I think you know we almost all start with a kind of I need to be persuaded attitude."*[CEO]

Demands for persuasion are a common feature of TMT members that motivate similar reactions among the team for more persuasion. However, such demand is expressed as varying type of behaviours. Five different characteristic patterns of behaviour were identified. A strong feature of selling and proposing was demanded by all team members to associate identified acquisition opportunities, which support the notion or proposing behaviour and therefore, suggest the emergence of Proposer as a social role. Another feature of immediate rejection and challenge to proposed acquisitions was typically present across the four episodes which suggest a presence of a Controller role. Similarly, another distinct characteristic pattern of neutral behaviour was constant through the four episodes and mediated the intense relation between the previously mentioned two characteristic patterns of behaviour which is named Arbitrator. Also, a pattern of advocacy by providing insightful analysis of the proposed acquisition was constant through the four episodes which suggest a presence of a Facilitator role. Finally, a pattern of consultative and advisory support was also present and is named Consultant. Table 7 below illustrates the existing five

patterns of behaviour in reference to their presence during the four acquisition episodes.

Having roles within organisations that are purposive, as illustrated in Table 7 below, entails five social roles which reflect repetitive patterns of characteristic behaviour related to the decision-making of four acquisition episodes in response to expressed expectations by team members. Empirical evidence for the presence of each social role is provided in the following subsections.

Table 7: Replicated social roles during presentation meeting of sensing phase across four acquisitions in contrast to TMT functional positions

	5 social roles	Acquisition 1: Tyrica					Acquisition 2: MTyflica					Acquisition 3: Sylica					Acquisition 4: pylica				
		Controller	Proposer	Consultant	Facilitator	Arbitrator	Controller	Proposer	Consultant	Facilitator	Arbitrator	Controller	Proposer	Consultant	Facilitator	Arbitrator	Controller	Proposer	Consultant	Facilitator	Arbitrator
6 Job Roles of TMT	CEO		X			X		X			X				X						X
	CFO	X				X	X				X	X					X				
	GBDD				X				X				X		X					X	
	EMD$_1$				X				X						X			X			
	EMD$_2$			X					X					X			X				
	EMD$_3$			X		X			X		X			X						X	

Table 8 below provides an overview of collected evidence for the presence of various social roles that are illustrated in Table 7 above, followed by further analysis of the emergence of each role from informants' words. The full evidence is then integrated in the text under each section of each social role.

Table 8: Social roles and empirical evidence

Social role	Aspects of role	Representative quotes
Proposer	Constructed as learned Interiorised	*"The selling part is actually quite important in the beginning. Somebody has to sponsor"* (EMD$_2$) *"Yeah but they can... I guess they are part of an idea generation process and the filtering process because they are closer to... you know there individual sectors and markets with some specific knowledge, so they are coming across businesses and ideas that wouldn't be in my radar or indeed the CEO radar, so it's a slightly different approach to us so CEO,[I]and CFO you know we talk about some of the larger players but there is also you know sort of trying to generate these ideas coming from within the business and again I think it goes back to, there is a lot of people who I trust and we trust"*[GBDD]
Controller	Consistent with functional role Stable role Populated by same individual	*"His job, his role in the business is to challenge and to protect financially, his body language and demeanour is very politely challenging. So EMD$_1$ (proposer of Pylica) then has to do some more selling to persuade him."*[EMD$_3$] "...an act that play the role of why..."[EMD$_2$] *"...CFO played the role of Mr.no very well. He played the role of Mr.no quite well and particularly with regards to France"* [EMD$_1$]
Arbitrator	Mixed behaviour combining functional background and constructed for particular sensing context	"The CEO role during the selling debate is set back and listens carefully."[EMD$_2$] *"The CEO quiet often will sort of not necessarily engage in sort of from the start of debate and so let the debate happen around him. So CEO can be... I can say passive in terms of that you know that interaction and just see people's views"* [GBDD] *"So the CEO you know...CEO is the final decision maker ...the final arbitrator"*[EMD$_2$]
Facilitator	Mixed behaviour combining functional background and constructed for particular sensing context	*"...well GBDD will generally, I mean GBDD played the same role in most of those discussions."* [CEO] "...he is very good at drawing out a structure of how things can work, he can visualise something and take a discussion and say could it look like this and he can draw it out on a piece of paper, and he is very good at putting some structure to planning discussions so Sylica is a good example"[EMD$_2$]
consultant	Consistent with functional background	*"You know if EMD$_3$ said yeah looks alright, I wouldn't necessarily go well if he thinks it's alright it's okay. .. Because he won't have tested to the same degree. But equally you know it doesn't mean to say that he won't have asked a few questions and you know and maybe because he is coming from a different angle, he will spot something that the rest of us haven't looked at and that quite often happens. It's somebody who is slightly more distant can actually go well what about that and everyone goes yeah that's a good point, what about that."*[CEO] *"The EMD$_3$ is like the wise man...his knowledge of the market, the customer, the product, the pricing, interaction in the market...He is a very experienced and knowledgeable guy... but if it comes to financial matters or acquisitions he may take a passive role"*[EMD$_2$]

5.2.1 Proposer

All four acquisitions were brought to the table by one of the executive team members. An acquisition is brought by a finder who identifies a stimuli event where the idea of potential opportunity might reside as one member notes:

"...the guy I think yeah certainly the people lower in the organization would, I think in most instances contact myself directly to sort of just can I just talk about this, is it a daft idea or is it something they might be interesting so they I think they may be fair reasonably they know that, they can just picture an idea in and then we can sort of discuss it for there and then the others going through as I said there's only six executive members"[GBDD]

Potential opportunity is perceived as an idea which might be *daft* or might attract the interest of the group member. In order to explore such ideas, it is made by a proposer. The proposal gets processed initially through a process of social interaction among the executive team, as is the case with any investment decisions, the CFO shares the same view:

"...we'd have that same discussion even if it was investing in a new product or even in investing in a new machine or a factory move. We would get the same; you would get the same sort of team interaction."[CFO]

However, other members during presentation meeting of sensing phase of potential opportunity are evaluating the conduct of the proposer and perceiving it with a specific judgement, e.g. worthy, unseemly, etc. Such judgements are made with reference to standards which the members of the team seem to tacitly set about what may reasonably be expected from people taking the role of proposer as one member highlighted:

"*The selling part is actually quite important in the beginning. Somebody has to sponsor....the CEO has to even if he wants to be very enthusiastic, has to be very careful to sit back and let the debate take place.*" [EMD$_2$]

Interestingly, the proposer is expected to be the sponsor of the proposed acquisition which he has brought to the table. This means that the proposer is expected to, eventually, become accountable as a condition to mobilise TMT collective support. The significance of such expectation, according to the other five executive members of the team, is related to the fact that the act of selling implies sponsorship of the proposed idea, which entails accountability. In the eyes of the CFO accountability is everything as he explains:

"I want to make sure people who are sponsoring the project are accountable and then when we move back with due diligence move and we'll do the deal accountability of sponsors on the hook for delivery"[CFO]

The interpretation of such expectation is that it provides the audience with the necessary self-assurance and thereby, confidence since it couples the proposer acting with subsequent implementation responsibility and accountability. The coupling of the selling act and sponsorship of proposed idea is perceived as necessary components to start a debate discussing acquisition as a belief in the proposer as expressed by one team member:

"*I always believe in the trader because he is got to make it work.*" [EMD$_3$]

Selling act on the side of the proposer is more of a reinforcement of position, which is to acquire businesses in view of firm history and systematic and analytic activities within Plastica. It is a repetitive pattern to initiate team understanding process of a particular acquisition episode. In this case, the individual acquisition episode is processed through TMT social interaction.

Acquisition Pylica in France demonstrates an explicit act of selling by the proposer. In this context one member notes:

"In this regard that EMD₁ is like a salesman. He has to come to the meeting with a very positive presentation about the business and about the positive reasons why it will be a good acquisition for the company and for the company in France." (EMD2)

The above assertion suggests the presence of a proposer role that is expected to engage in an act of selling his idea to the rest of team members. It is closely related to the reliability of the proposer. The champion of the French acquisition is one of the executive managing directors himself a member of TMT in Plastica. A salesman proposing would not be consistent with his job position.

A proposer in this case is an entrepreneur who brings an acquisition to the table and is expected by other team members to persuade them with his proposed acquisition. In this case, growth is translated if people draw their objectives from somewhere outside the immediate world. For example, the entrepreneur's satisfaction in taking calculated risks and building up a new enterprise as a founding practice of this firm promote the construction of the proposer role.

Selling act of proposed acquisition among TMT stimulates diverse reactions aimed at eliciting more explanation from the proposer, which shapes team interaction. Such interaction appears as a social reciprocity demanding further explanation representing a collective act of TMT to make sense of the proposal.

Collected data suggests that each response to proposer reflects different patterns of behaviour during presentation meetings. This represents signs of the presence of other roles during team social reciprocity as observed by a keen member:

"Sylica was...that was ... actually again I don't know where it originated. They went into receivership and therefore that was picked off, and I think CFO was participating in that acquisition. Now that I do remember, CFO was saying "No"; I do remember CEO saying "No".

EMD$_2$, EMD$_3$, and I don't think they had any particular view, and that was in the meeting, so it was pretty much a question of "We are not sure we are going to do this deal".[EMD$_1$]

From the above analysis, it could be suggested that the presence of the proposer role launches an interpretation process of the proposed idea, a process with which the team engage to process proposed acquisition. Using the above examples of the acquisitions of Pylica and Sylica, it was apparent across all four acquisitions that there was someone who was always opposed to the idea of acquiring a new company. As the CEO briefly notes:

"There is always a risk so he always starts from a position that says I don't want to take the risk" [CEO]

It seems obvious from the above quote that an extreme degree of sceptical disposition of acquisitions in general will adopt an opposite stand during the on-going interaction launched by the proposer. Observed expectations in the data also revealed several components which compose the act of selling. One of the executive directors expressed this with little ambiguity:

"... his presentation has to articulate it in a very professional way, but a very positive way. That's not to say that he didn't give some risk analysis about the potential downside if we get it wrong, but I would say 80% may be more of what he says and the style the manner in which he says it is in a way that actually emphasizes the benefits. So he is very much a salesman and has to have within him sales presentation he has to look for support from all the people in the meeting."[EMD$_3$]

The act of selling at pre-acquisition stage is tailored by the expectations of other team members. Some expectations are concerned with communication and others are concerned about the behaviour of the proposer, as described above.

An interpretation of such expectation can be regarded as part of the proposer's reliability. Professional and positive articulation of proposed opportunity is expected to be provided during the meeting.

The aim of this presentation is also expected to build support during the meeting rather than a final decision regarding buying the proposed acquisition. This means that support building among TMT members to agree on proposed identified acquisition is part of the proposer's function during the interpretation phase as a starting point. The decision to buy or not to buy is not part of the discussion. This is an important understanding of the pre-acquisition phase as part of the overall acquisition decision-making process. Sensing phase as the first pattern of pre-acquisition decision-making is about building collective support among TMT to agree on the proposed potential opportunity as reinforced by the GBDD:

> *"you know try and get to that consensus as we move forward without necessarily saying alright you know everybody put your hands up and vote you know if you think we should do it decide well yeah we have probably got enough here okay lets go to the next stage. That's how most of the time we work so we don't we work into how to get a consensus"* [GBDD]

The above quote gives the impression that consensus building during decision-making of acquisitions is a gradual process. Therefore, the essence of persuasion among TMT during pre-acquisition phase as expressed in the interviews can be understood to be more of a demand to reinforce a position which is consistent with TMT's original hidden assumptions. Such assumptions are the result of the firm's path dependence evolution and the regular exploration for new opportunities during the periodic executive meetings.

Based on the above analysis, we can argue that the expressed need for persuasion by TMT is more of a reinforcement of position rather than a genuine change of mind. The

original position of TMT in this case accepts acquisition strategy as a vehicle for growth. However, the type of vehicle is the issue of discussion and interpretation. Therefore, the proposer's main function is to engage in an act of reinforcement of a position. This insightful finding implies absence of conflict over acquisition as a concept and articulated very insightfully by the CEO:

"All of us we will say, you know, we should do this but when it comes to actually, it's like spending your own money you know. It's when you could be convinced that that is the right one so you might say, you know, I need a new car or I need this but actually before you go and buy it you look very carefully under the...you know if you are buying a second hand car you might say I need to buy another car but you know I am going to have to be persuaded that this is really that car that I want to put my money into. So, I think you know he (CFO) *doesn't question the strategy, it's the vehicle, the particular choice of company and that particular acquisition and the value we paid for it...."* [CEO]

However, despite the fact that support building is an important element achieved through a pattern of reinforcement of position by the presence of the proposer role, the overt opposition of TMT members to the proposer was observed in all four cases. Another expectation with regards to the proposer role agreeing to what has been said above is to frame out the proposed acquisition in such a way that "*tease out the rational*" in order to initiate the presentation meeting debate. Along those same lines the GBDD seemed to be thinking aloud in his reflection:

"...frame it, yeah frame this that's probably a better way of I'm trying to tease out the you know help him tease out the rationale as to why we should and why we shouldn't, I think that's the debate as you know initial debate as much as anything you know what is the rationale is there a realm rationale to do it?"[GBDD]

Rationalisation of an acquisition is an expected act from the proposer. However it is a collective act by the team while they interact with the proposer. It is simply his answers and reasons as to why should the company make a decision of an acquisition.

Similarly, the audience seeks reasons to abort the proposed idea. The significance to the GBDD is that it helps him to visualise a future perspective of proposed acquisition and therefore, conceptualise it as an act of imagination, as will be further described under the role of Facilitator.

Reasoning as a behaviour is expected to be conducted through a fluid process. This process is not limited to pure rigid numbers as agreed upon by team members. The GBDD seem to confirm this as follows:

> "*The social interaction, yeah there is. Yeah there is not, you know it's not a mathematical financial nor a defined process that's on a sheet of A3.*"[GBDD]

Rather it is a process of persuasive communication by modes of social interaction. As an initiative, it stimulates different reactions which are represented by different roles. Interestingly, this interaction between present roles creates a space of social dynamics among TMT. This dynamic illustrates the mechanism by which the team is engaged to make sense of an acquisition and thus interpret it using the team's collective energy.

Worthy of note about the proposer role concerns the fact that it is the finder of an opportunity who initiates creative ideas. It is a rich role. Therefore, it is considered to be an open dynamic role as described below.

Two acquisitions were brought by two proposers. Nevertheless, the two proposers had to go through the same process of selling act as one of the executive directors confirms:

> "*yeh acquisition Tyrica was very much as I described this one* (Pylica) *but more CEO doing the selling.*"[EMD$_2$]

It seems obvious that the similar action of individuals who take the role of proposer reflects their awareness of team expectations of what become a ritual practice during presentation meeting in Plastica. Thus, such understanding constructs their behaviour. That might be interpreted to have been inherited within the team due to accumulation of experience as a consequence of repetitive doing of the listed acquisition episodes as it became learned and, therefore, internalised, as suggested in previous quotes.

CEO brought two acquisitions, Tyrica and MTyflica, to the table as a result of his personal ties. Acquisition Pylica was brought by EMD_1 and Sylica was brought by GBDD. Thus, the entrepreneur who discovers the opportunity takes the role of the proposer; this was illustrated previously in Table 2.

In other words, the demand for activities of idea-selling, as illustrated below, constructs a generic form of proposing behaviour which suggests the role of proposer can be taken by different members of the team independently from their job positions during sensing phase. Otherwise the team will reject the proposition of acquisition, as in the case of Sylica. One of the executive directors illuminates this point further:

> *"I did have a subsequent meet ...discussion with GBDD* (proposer of Sylica acquisition)*, yes look if it is an opportunity, it won't be repeated. If you want to do it then you need to put forward a case, yes you need to sort of forward a stronger case"* [EMD_1]

The above quote highlights two issues about the significance of proposing potential acquisition targets. The first is that the significance of proposing acts as a mechanism to overcome potential rejection by the team. The significance of team socialisation in sharing experience and awareness between team members on the importance of expectations during the acquisition decision-making is the second issue.

The lack of awareness by GBDD of the importance of others' expectations suggests that his failure in anticipating others' expectations of him with regard to proposing

acquisition Sylica resulted in immediate rejection of the proposed acquisition. However, managerial discussion, advising and sharing experience of best practice seems to enhance the chances of identifying potential opportunities of acquisitions among TMT as a repetitive practice which transforms to become a skill.

However, the above three members of the team who populated this role seemed to play it based on actor-acquiring accurate information about other members of the team. Such knowledge helps the actor to define the situation accordingly. The ability of the proposer to define the situation helps in effective expression of the proposed acquisition. The three actors relied on verbal communication process as an expression tool. The aim of this tool is to create an impression of other team members.

The output of the proposing act is supposed to make the audience act voluntarily in accordance with the actor's intentions, in order for him to reach his goal. The main goal of the on-going debate between the proposer and the rest of team members is to collectively conceptualise proposed acquisition through a process of social interaction. This is assumed to be the result of collective interpretation of proposed acquisition as a result of team socialisation during sensing phase.

In addition, the ability of proposer to anticipate team reaction and knowing his audience, aided him to take the role of proposer and not just play a role, this is captured by one of the members in such fashion:

"*Well as I know-how they sort of tend to react, and as I said they therefore you try and head off any negatives with the positives. Which I think..I.. you know effectively did, and if you are confident if you are willing to put the case forward then that you know is part of the.. is part of the process…Part to be …it's not role play because you do believe it, it is okay if I'd say that pleased to decide then actually, I wasn't really keen on it, then it wouldn't go any further. So I had and have to maintain an air of confidence that what we are getting is what we think we are*

getting and we can do with it, well we can do with it. That may lead to a future sleepless nights, but you know that's what we did. It's what I'm here for."[EMD₁]

Several themes emerge from the above quote. Team members knowing each other, confidence and willingness to act composed some features of the proposer during the interpretation phase, which is about the feeling of self-competence to take on a role.

In addition, the ability of proposer to anticipate expectation of other members of the team is crucial for the selling process. Such knowledge helps the actor to define the situation, as explained previously, and thus manage the audience reaction.

From the above analysis an important distinction is made between someone playing a role and someone taking a role. Confidence, believing in one's self and absolute determination presuppose the actor to take the role and not just to play it in real life decision-making of acquisitions.

The previous quote highlights the importance of familiarity with other team members. This suggests that the proposer base his act of selling on his previous knowledge of how the rest of the team members will tend to react. His prior knowledge of his team members helped him to "*try and head off*" any possible negatives and positives.

The dynamic relation between the proposer and the audience during pre-acquisition phase could be summarised in the following manner. The presence of a proposer role at the pre-acquisition phase establishes a social interaction among executive team members. Such interaction aims at directing the collective energy of the team during discussion to an act of interpretation of proposed acquisition. This builds on existing history of shared experience which results from working together. Such experience increases the level of accuracy by the proposer in handling the situation, which enables

him to predict other team members' reactions. That is because it helps the proposer to define the situation accordingly.

Selling act during interpretation phase aims at shaping audience reaction to act voluntarily in accordance to the proposer's plan. Audience on the other hand is made up of other team members. They expect to be persuaded by the actor who sells his argument. Persuading in pre-acquisition phase is a reinforcement of position. It is a mechanism which depends on the ability of the actor to control others' conduct, which involves a treatment of their response. It enables the actor to play a role which influences how the audience will define the situation.

Expectations appears to be a unifying factor of the behaviour of all executives who populate the role of proposer and, as observed from the data, the presence of proposer role is the result of sustainable mix of two factors. The first factor is related to expectations by other team members. The second factor is related to the proposer's ability to anticipate other team members' expectations. This results in the creation of tacit reciprocity where the proposer plays the positive side of one side with regard to proposed acquisition as opposed to his audience, who are positioned on the opposite side of that reciprocity. The proposer, who is basically expected by the audience to persuade, will also try to anticipate accurate demands to shape his behaviour.

In conclusion, the role of a proposer during sensing phase is a prescribed behaviour. The imaginary construction of this role reveals team expectations which shaped the behaviour of the individual who identifies stimuli in the external world. It is a learned behaviour which seems to be internalised by the individual who takes the role. It is also a specific role that is constructed as a ritual of TMT decision-making of acquisitions in Plastica. It reflects a common practice within that team. In the next section, another social role is explained, the controller.

5.2.2 Controller

As a result of proposing act within TMT during presentation meeting in sensing phase of decision-making of acquisitions, a characteristic pattern of challenge was observed to be present throughout the four acquisition episodes. One of the directors remarks with enthusiasm that:

> "*...CFO played the role of Mr No very well. He played the role of Mr No quite well and particularly with regards to France*" [EMD$_2$]

Such a character is played by a particular member of the team; the CFO as illustrated previously in Table 2 and supported by the above empirics. It seems that the presence of this role is reciprocal to the presence of proposer role throughout the four acquisition episodes.

As indicated above, it reflects an extreme, kind of expected, opposition to proposed acquisitions by the proposers as a persistent pattern of behaviour during presentation meeting, as illustrated in Table 2.

An explanation of such behaviour might be drawn from the fact that the CFO Job position conditions his expected behaviour which creates dissension among the TMT playing the role of Mr No. Accordingly, the impact of such behaviour reflects a complex system of interaction which cannot settle as it stands with its incumbents' different views toward strategic growth decisions if such decisions are rejected. One director describes this behaviour as:

> "*...an act that play the role of why...*" [EMD$_2$]

The act of such role questions proposed acquisitions, as another director puts it:

> "*you know ...the CFO will always play the role of why we doing this...you know on everything...you know his starting point is the answer is no...Now ask me the question again...*" [EMD$_2$]

An interpretation of such behaviour is ascribed to the job position of the individual. One of the directors speaks for the others on this issue averring that:

"*...because this is what he has to do...you know his natural response has to be I need to be convinced...and you gonna work hard to convince me...and it doesn't matter whether we talking about paying a lot of money for something...he will try to understand now what's the value...are we paying too much ...and if something available for an extra nothing then it must be so bad that is not worth having...so, at both end of a spectrum... the answer will still be no...*"[EMD$_2$]

Thus it is easy to expect the behaviour of such a role during the sensing phase of the acquisition decision-making process. That is because the job position of the controller and his behaviour during sensing phase is consistent, because he played his role by resisting proposed acquisitions. His interaction with the proposer is mainly guided by several check points in terms of impersonal rules which ensure a rational decision is being taken. Therefore, the related pattern of behaviour of the CFO during presentation meeting of sensing phase can be inferred and labelled Controller.

Another sign which is distinctive to this role is the fact that it is a stable role. Unlike the proposer role, which was populated by different members of the team as constructed by their expectation of opportunity finder, the controller role was dominated by the CFO. It can be argued that the historical conditional effect of the structures governing the present social position of the CFO (such as training, professional associations, past and present responsibilities) have restricted his own agential powers and although in role he tends to act to reproduce the structures associated with his functional roles.

The presence of a controller role was observed to adopt a persistent behaviour in all four acquisitions. Since it was constantly populated by the same individual, it is, therefore,

categorised as a static role in contrast to the proposer role which is categorised a dynamic role.

The impact of a controller as a single role represents the major challenging role in the social interaction as one director was quick to point out:

"*His job, his role in the business is to challenge and to protect financially, his body language and demeanour is very politely challenging. So EMD₁ (*proposer of Pylica*) then has to do some more selling to persuade him.*"[EMD6]

Financial protection of the business is one of the main derivers that shape the features of controller role. Also, other members observe the controller through other clues which indicate his status, such as facial expressions, body posture and positioning. Such observation shapes their expectation of such role.

It is also a powerful role as perceived by most of the team members due to his hierarchical job position, which explains his dominant behaviour as observed by a director:

"*… you know again CFO sort of tends to be the, you know, the power modes…*" [EMD₃]

Therefore, the functional role of the chief financial officer, derived by his job position, seems to ease others' anticipation of his behaviour. This may shape the nature of the relationship between proposer and controller.

Additionally, the controller demands more persuasion than the average amount demanded by other team members who are less technical in financial issues. Therefore, the team members hold high expectations from such role performance. One director makes a passing remark in this direction:

"*The key again sort of dynamic, you know… CFO is sort of a key touch point because of the very much, you know black and white view of financial*" [EMD₁]

The function of controller role, then, is to demand technical understanding of the value of the proposed acquisition as mentioned below as another member assert:

"*he will try to understand now what's the value...are we paying too much ...and if something available for an extra nothing then it must be so bad that is not worth having.*"[EMD₂]

Hence, such a demand defines the nature of the above challenge, which is anticipated by other team members and, therefore, translated by the presence of a controller role. According to the GBDD:

"*…CFO will always challenge the money because he is the finance director. But I wouldn't say he was the only person providing challenge...CFO is sort of you know... He is sort of the financial gate keeper...*" [GBDD]

The influence of the functional background of a controller on the act of the role is inseparable during pre-acquisition DM process. Therefore, the controller's views on acquisitions were investigated since it was observed to have invisible subtle influence on the behaviour of controller. Such views are assumed to be the result of previous experience with acquisition perceived as proposals for rejection. In his own words the CFO seems to confirm such views:

"*Yes, see that's what I am telling you I don't want to make any acquisitions so I am extremely sceptical and then if we are going to do when we have spent our hard earned cash and if we are gonna do the evaluation and the person whose done the evaluation has to be responsible and accountable for what he said in the paper and then I am happy. That's it, nice and simple....*" also "*.....I don't know all this stuff. So I basically start with a no, a no...*"[CFO]

Such a quote helps to further understand deep assumptions of the controller mode of action during the interaction. There is an element of extreme scepticism toward acquisitions. Scepticism implies uncertainty. Therefore, the controller seeks

accountability to overcome such scepticism. In this case, the proposer is assumed to be held responsible, which implies accountability for the proposal he makes.

Acquisition process as an investment decision demands the same sort of skills required for making everyday investment decisions as the controller, which reflects the black and white logic of his own job position. According to the CFO

"*... the skills that we need to make acquisitions are just the skills that we use every day in the business in making the investment decisions.*"[CFO]

However, although acquisition is an investment decision, it differs from other decisions because it is a complex decision as the CFO would agree:

"*..It is just an investment decision; it's more of a complex decision because you are starting with an external opportunity.*"[CFO]

The uncertainty and complex nature of acquisitions explains the controller's usual scepticism toward acquisitions, as previously mentioned. However, assessment of external opportunity is a similar function to the assessment of an internal growth opportunity.

Thus, the technical expertise demanded for assessing acquisitions as an external opportunity utilises the same skills used to assess investment decision of internal opportunity, to put it more accurately:

"*...but internal opportunity also requires same skills to evaluate them and you know most businesses can make acquisitions because they have the technical skills and experience to evaluate an opportunity.*"[CFO]

Therefore, the controller explores proposed opportunities using his technical expertise, which reflects calculated risk rather than depending on creativity and long term visions,

as is the case with some other constructed roles during this interaction, i.e. facilitator role as the CFO sums up:

"The skills involved are really skills that we should have as managers..." [CFO]

In conclusion, the content of the controller role sustains constant behaviour with job position. This suggests that the CFO controlling related pattern of behaviour during this meeting is value-laden and, therefore, behaviour is accompanied by hindering overt evaluative and affective act towards proposed acquisitions. Thus, this behaviour reflects an evaluative behaviour of proposed acquisition.

Its main task is to assess proposed acquisition, which reflects an evaluative behaviour of proposed acquisition. This is because it is a behaviour accompanied by an overt evaluative and affective act. In the next section, a descriptive analysis is provided of the other basic role in this study, the social role of consultant

5.2.3 Consultant

Alongside the controller there exists another role that mirrors its functional counterpart in terms of pattern of behaviour during the sensing meeting. One of the directors notes:

"The EMD₃ is like the wise man…So in a meeting where there is any discussion of technical matters … he will not contribute unless it is absolutely directly affect him and he's got to take an action so he will inquire about it..." [EMD₂]

This role is constantly played by the executive managing director (EMD$_3$) during sensing phase. An inference can be made about the nature of such behaviour and is labelled Consultant.

Inductive analysis of the interviews suggests that the impact of consultant behaviour is less significant during presentation meeting of sensing phase. Although it is a basic role in the sense of reflecting job position, the behaviour of roles can vary because of diverse

influences of other factors, such as age and niche technical expertise, i.e. sales management. As such, it might influence the behaviour to be limited to reflect job position in terms of function and longevity, as reflected in the statement of one of the members:

"EMD₃ is our older statesman so if you ever feel, if you ever meet EMD₃ he is the voice of experience and reason, and we have been here six times before and this is what happened. So, he can always play the experience card and he is closer to long established big customers in the business in a personal way because he has been there long enough and he was the sales director for the group".[EMD₂]

Consequently developing a specific business experience, in this case, means going back to the early days of the business. The consultant worked with the founder of the business and with all following directors up to the present date. Thus, normative expectations about the consultant role during the sensing phase have become the result of his permanent job position, which is to assure the probability of selling the proposed acquisitions. In his own words:

"...my job was to, whatever we acquired, was to make certain we could sell it. So there was a distinct, you know, as a sales director they may have asked my opinion, "What if we acquired this company, do you think we could," but I would not get involved in the actual nitty-gritty of making an acquisition. It would be, "Okay, EMD₃ what do you think? Do you think you'd be able to move this product? Do you think it will work closely with our products? Do you think we've got a chance?" I would either say yeah, or nay. It doesn't mean we didn't ...if I said, "Nay," it didn't mean that they wouldn't acquire it but no, I wouldn't get involved first on acquisitions." [EMD₃]

An interesting interpretation in the development of such a role, which is specific to this situation, is that it is accumulated experience which shaped other team members' expectations from the consultant. The development of such a role seems to be attached

to the history of business development. This role acted as a consultative body to other members of the team with regards to the customer base, due to intimate knowledge of business customers as illustrated by the above quotes.

Obviously, the effect of such role on the sensing phase is not assumed, by other team members, to have any direct impact on the recognition of proposed acquisitions. This can be explained by the fact that the data did not provide any evidence related to the behaviour of the consultant during the presentation meeting insofar as the on-going interaction is concerned. In other words, the role of the consultant is not engaged in a specific combination of roles during the four acquisition episodes. Therefore, the distinction between the role and the actor occupying the job position is very fragile. Expectation of such a role was more of a representation of accumulated knowledge and expertise about market interaction, customers, suppliers, and product pricing as one of the directors asserts:

> *"The EMD_3 is like the wise man...his knowledge of the market, the customer, the product, the pricing, interaction in the market...He is a very experienced and knowledgeable guy...So in a meeting where there is any discussion of technical matters like health and safety matters he will not contribute unless it is absolutely directly affect him and he's got to take an action so he will inquire about it...but if it comes to more technical financial matters or acquisitions he may take a passive role.....he will almost respectfully draw on the expertise of other people around the table...If it's a fanatical matter he will let the CEO or CFO take the lead and he will be guided by what they discuss...he wouldn't challenge it much..".* [EMD_2]

However, the role reflects openness and understanding of the importance of acquisitions to the development of the business, as illustrated from his behaviour during the acquisition of Pylica. According to EMD_2:

"EMD₃...is very neutral, his starting point is, you know I've been with the company for 30 odd years; we've never make any money in France. But if we want to do then I will understand. So the thing he's not, he doesn't mind one way or the other. He's only if it really affects his business or if it's going to have a real serious risk to the group. So, he would I'd say fairly neutral but bordering on more positive about, well tell me a bit more about it". [EMD₂]

It seems obvious from the above quote that the consultant role profile implies a neutral position but bordering on the positive side about proposed acquisitions. However, this provides the team with the advantage of standing at a distance from on-going interaction. Although this does not have a direct effect on decision-making, due to the lack of testability of acquisition, it is expected to have a critical ability which enables the consultant role to notice something which was not spotted by other team members who are more directly engaged. This ability may influence what to expect from such a role as and the CFO seems to be appreciative of this influence stating:

"You know if John said, yeah looks alright, I wouldn't necessarily go, well if John thinks it's alright it's okay. So that— because he won't have tested to the same degree. But equally you know it doesn't mean to say that he won't have asked a few questions and you know and maybe because he is coming from a different angle, he will spot something that the rest of us haven't looked at and that quite often happens. It's somebody who is slightly more distant can actually go, well what about that and everyone goes, yeah that's a good point, what about that." [CEO]

In conclusion, the consultant role provides the team with necessary support in an advisory capacity, in spite of the lack of engagement in team interaction during a presentation meeting in the sensing phase. This role seems to be value-free in terms of interaction during a presentation meeting. In the next section, a descriptive analysis of the facilitator behaviour is provided.

5.2.4 Facilitator

Another pattern of behaviour that manifested across the four acquisition episodes is succinctly captured by the CEO:

"...well GBDD will generally, I mean GBDD played the same role in most of those discussions." [CEO]

Therefore, such a pattern of behaviour is acknowledged as present through the sensing phase, across the four acquisition episodes as illustrated previously in table 3. Reflecting on his position GBDD claims:

"I am different...a sort of facilitator". [GBDD]

Thus, such a pattern of behaviour is labelled in this study as Facilitator. This facilitator role reflects a combined content of both types of expectations, which are previously observed in the roles of proposer and controller as constructed and normative expectations. Therefore, the effect of the two elements of expectation, on the performance of the facilitator, differentiates the behaviour of this role accordingly during presentation meetings. This helps us to understand what underscores the behaviour of such role.

Normative expectations inform the behaviour of a facilitator to mirror his job position as the group business-developing director. His management of the opportunity identification list, in addition to his broad exposure to different sectors of group businesses, help other members of the team to anticipate expectations of his behaviour. One of the directors seems to have hit the nail on the head stating that:

"The GBDD is more the facilitator and organiser and you know he is the diligent note taker and he is the... you know make sure that everybody carries their actions. And GBDD is more like the, GBDD is almost like the company secretary kind of role but he is not the legal

company secretary if you know what I mean. He is the guy who is kind of mixed all together and make sure that things work across the group."[EMD₂]

So, a mix of activities, such as note taking, follow up, organising and coordinating across business groups, are the types of activities that are usually carried out by a facilitator during the sensing phase, which shaped his behaviour as a matter of repetition. This role is expected to sustain the same performance during TMT interaction.

The facilitator role is played as a reflection of normative expectations, which means those ascribed to him by his functional position. However, the role of a facilitator is at the same time understood by the individual himself before it is ascribed to him by others, thus he reiterates more than once:

"*I am different…a sort of facilitator*". [GBDD]

The influence of individual's awareness of what is expected from him seems to positively shape his behaviour. This role is further described by the CEO as follows:

"*As I say, he will always be much more about, where is the fit? Where are we going? Does it work; you know, what's the market? And so he will be more involved, he will have the same sort of input almost on every occasion...*" [CEO]

Despite the fact that the facilitator asks for challenging details, his behaviour tries to erode the conflict effect created by the controller. This is achieved by fitting the proposed opportunity within the overall business. Thus, the expected inquisitive interaction from the facilitator side has the aim of giving an insightful analysis, which demands an element of creativity as a distinctive expectation of his behaviour compared to the more formal inquisitive interaction performed by the controller, who is aiming for a rational analysis. Such a role demands an expectation of creative thinking as one of the executive directors observes:

"...he is very good at drawing out a structure of how things can work, he can visualise something and take a discussion and say could it look like this and he can draw it out on a piece of paper, and he is very good at putting some structure to planning discussions. So Sylica is a good example: we gonna acquire a business for an extra nothing but we got a lot of work to do to sort all the problems out and to integrate it...and GBDD is good at putting a plan together and articulating it and actually getting it documented properly...and that's the role he play in the discussions: he takes a lot of what been discussed around the table and turn it into something visual..".[EMD$_2$]

The ability to visualise the 'round table discussions' of proposed acquisitions is the key expected task from a facilitator. Hence, the facilitator is the designer of the team, although this is not described in the designated position.

Creative thinking to design the future is an expected capacity in this context. This is demonstrated by the ability of a facilitator to connect the present status of a business with its future prospects. As such, this reflects the forward thinking of the team during the sensing phase. In order to do so, the facilitator role is expected to develop a plan, which visualises the future prospect of a proposed acquisition, in view of the on-going interaction.

A facilitator also shares the observational behaviour which borders more on the positive side, similar to the arbitrator's behaviour. However, this is a biased observation, as opposed to the neutral observation by the arbitrator. EMD$_2$ explains that the facilitator role, during the sensing phase, is to conceptualise the proposed opportunity in term of a feasible plan; he notes the facilitator:

"...would always be concerned if he couldn't see a plan...if he doesn't understand what it is that we gonna do differently ...to make a difference you know he will struggle with the concept... ". [EMD$_2$]

This implies evaluation of the proposed acquisition. An interpretation of such an argument could be that the production of a plan is expected as the result of an assessment of the external dynamics which surround the proposed acquisition. The CEO provides us with a more accurate narrative stating that:

"... *he will be more in the kind of, you know what's happening? What are the dynamics surrounding this business that we are buying, if you like? So, how does it fit in with Plastica and is it, because is it where we are going? And you know one of the things that are impacting the external influences impacting the company rather than necessarily the internal sort of what's happening in the company itself".*[CEO]

Hence, although facilitator and controller behaviour is evaluative, the facilitator's concern is expected to focus on the long term views of a proposed acquisition and how it fits within the overall strategic plan. The controller's view however is about stability. He is expected to focus on the short-term plans derived from pure financial information about business growth, which can be predicted from rational indicators, such as earnings before interest, taxation, depreciation and amortisation (EBITDA). This view is reflected in GBDD's own views asserting that:

"*...business has a number of growth areas and if we can buy businesses, niche business that would help accelerate our growths in those specialised areas than that something will be attractive to us. Sometimes it is down to pure financial dynamics such as the financial performance of the business and the prices required buying it and we look at things in terms of EBITDA Multiples. And so if, we can buy something that is on a lower EBITDA multiple than our current valuation...*" [GBDD]

Therefore, evaluative assessment by the facilitator tries to find reasons which can help to conceptualise a proposed opportunity as an acquisition. As GBDD puts it:

"yeah...a...you know reason to do it and ...a what could the benefits be not necessarily attaching pair notes to those, but you know is there enough to go...can we leverage a customer base, you know what are the sort of ...what are the four or five things that we might be able to do with it...". [GBDD]

Creative thinking, in this case, is related to ways of potentially influencing the existing customer base so that new acquisitions might produce additional reasons to initiate a working plan, rather than basing the plan on a vast amount of available information.

The facilitator behaviour is not limited to his ascribed job position; rather it is about talent where the "*good feel*" [GBDD] that constructs his behaviour as a result of intuition or gut feeling, is an important element of strategic thinking, GBDD continues:

"...you know I will say it's not a good feel, but it's sort of necessarily got every piece of evidence I want but it just feels the right thing to do or not to do..." in other words *"...it sort of fits into the bigger picture that's how we should do it..."* [GBDD]

Therefore, the role of a facilitator during the pre-acquisition phase has different aspects, from where intuition complements the on-going interaction that contributes to shaping expectations of his behaviour, to one that holds positive orientation toward acquisitions in general. In yet another think aloud episode the GBDD cast a further reflection on his role as a facilitator:

"GBDD is very open, GBDD can see the business development of cases or if it sort of makes sense then he'll be reason to support it." [GBDD]

In conclusion, the facilitator role, during the sensing phase, reflects a combined behaviour, both to meet normative expectations and constructed expectations. This suggests that the GBDD facilitating-related pattern of behaviour during this meeting is value laden and therefore, behaviour is not accompanied by positive overt evaluative and affective acts. Thus, this behaviour reflects an evaluative behaviour of proposed

acquisition. Finally, in the next section a descriptive analysis of arbitrator behaviour is provided.

5.2.5 Arbitrator

The final pattern observed as being consistent across the four acquisition episodes is described by all informants and emphasised by one director in particularly as follows:

"So the CEO you know... CEO is the final decision maker... the final arbitrator." [EMD$_2$]

Similarly to the facilitator, expectations of CEO behaviour are expressed explicitly, which facilitates labelling it to match their description as being 'the final Arbitrator'. It is a role constantly taken by the chief executive officer (CEO).

Expectations among TMT also influence arbitrator conduct during this phase, which is carefully described by the GBDD stating that:

"The CEO quite often will sort of not necessarily engage in sort of from the start of debate and so let the debate happen around him. So CEO can be... I can say passive in terms of that you know, that interaction and just see people's views and so he sort of tends to work and quite often CEO will differ in a decision or an opinion you know he won't necessarily sort of, I won't say jump to an opinion but sort of, if you haven't got enough data or he is not persuaded by, I think he is a scientist by background... he wants more evidence."[GBDD]

Accordingly, the neutral behaviour of the arbitrator during a presentation meeting in the sensing phase matches the teams' expectations of maintaining a neutral behaviour to reduce the effect of his job position on the discussion. In this case, the arbitrator behaviour is constructed independently of the job description. It is a voluntary act which sustains deliberate passiveness during most of the interaction, one of the directors thus observes:

"The CEO role during the selling debate is to sit back and listen carefully."[EMD$_2$]

Expectations, and anticipation of expectations, seem to shape the behaviour of this role as observed from the interviews. However, the behaviour of such a role reflects a more complex set of actions than the behaviour of other roles that are either the result of normative expectations i.e. matching job position, as in the case of the controller, or constructed based on team expectation i.e. the proposer. The arbitrator is a hybrid of both sets.

The effect of the two elements of expectation on the performance of the arbitrator's role has a liberating effect on the behaviour of the CEO, in comparison to the compelling effect of normative expectations on the role of the controller. Therefore, the nature of behaviour of this role is flexible.

Normative expectations imply consistent behaviour with the job position of the role. Thus, the CEO is expected to be the final arbitrator, as expressed by all interviewees, to conclude the team's social interaction during a presentation meeting in the sensing phase, one director concludes:

"*So the CEO you know... CEO is the final decision maker... the final arbitrator.*" [EMD$_2$]

The behaviour in this case is expected to mirror the normative expectations as given by the job position of the individual, being the CEO in this case. This role concludes the team interaction as he reverts to play his role as a CEO to start the next phase of pre-acquisition decision-making.

However, the arbitrator-constructed behaviour is acknowledged at the level of CEO as an individual first, to maintain a passive behaviour during the presentation meeting in response to team's expectations. It reflects a deep understanding of the complex nature of his role and the potential effect on the quality of interaction as he notes in his own reflection:

"Yeah if they have concerns I want them to get them out on the table. So if someone then starts to express concern I want to try and tease out, to tease out what that is. [CEO]

The arbitrator behaviour, in this case, stems from his intention to ensure all members' participation to diversify the interaction, as a way of releasing the different experiences of the team members, and hence by constructing such behaviour, reduce the potential impact of his hierarchical position on team interaction.

Also, the arbitrator emphasises his awareness of the impact of his knowledge and experience as an expert. Therefore, he makes a conscious choice to eliminate potential bias, by taking more of a role of listener as an objective observer during most of the interaction. Using his own words the CEO elaborates:

"But inevitably because I am in the business so I have an opinion. So I will inevitably influence some of those feelings for just however hard I try. You know in theory, as I say in theory I ought to be dispassionate, yeah and have no opinion." [CEO]

Therefore, he continues:

"I would try not to express an opinion or influence. So I am not influencing the people in the group." [CEO]

The detached behaviour of the CEO by taking the role of arbitrator, suggests that arbitrator role is taken to cultivate openness of discussions, and a fearless culture among executive team members during a presentation meeting of the sensing phase.

Nevertheless, in cases of a positive course of discussion, for example, talking about acquisition potential advantages, the arbitrator might voice his positive orientation toward acquisitions as an opinion in support of the acquisition, in contrast to the role of controller as the CEO remarks:

"...well I will generally try through most of the discourse. When we come to making a good decision then I might throw my opinion in." [CEO]

The constructed part of arbitrator's behaviour reflects his accurate anticipation of other team members; therefore, he restrains his authoritative or conventional power during presentation meetings so as not to influence the dynamics of the debate. One director notes:

"CEO *has to even if he wants to be very enthusiastic, has to be very careful to sit back and let the debate take place"* [EMD$_2$]

Expectations of other team members underlay the generation of CEO conduct in this particular meeting as represented by the arbitrator role, which guides the enactment of the role at aggregate level. This reflects the complex nature of the role of arbitrator as a hybrid role, which is constructed at the level of the individual first to reflect personal beliefs of a particular leadership style, and eventually match the others' expectations of him. In the same time, the arbitrator has to conclude the meeting as part of his assigned duties, being the CEO.

Hence, the notion of taking on a role and therefore playing it, as displayed by the arbitrator role, is more complex than the composition of the role and role structure of the controller role, whose performance is mainly playing a role which matches his functional position. Similarly, it is not purely a constructed role, as in the case of proposer, which is an independent role. Personal beliefs of leadership style, which translate into the adoption of positive orientation toward the on-going interaction, differentiate a hybrid role from a purely independent role as the GBDD observes:

"...first of all I would describe this is sort of consensual management style it's not dictatorial in any way and that comes from I the chief executive..." [GBDD]

In conclusion, the role of an arbitrator reflects a behaviour which mainly captures the result of team interaction, and describes it as an articulated decision to conclude the presentation meeting. This suggest that the CEO arbitrating-related pattern of behaviour during this meeting is value free and therefore, behaviour is not accompanied by any overt evaluative or affective act, as in the case of controller and facilitator.

To summarise the previous discussion, the empirical findings which emerged from the inductive analysis of primary data, suggest that the significance of top management team social interaction during the sensing phase, initiates the acquisition decision-making process. Main emerging themes of Findings are summarised by the presence of five social roles as illustrated in the table below. Therefore, the sensing phase reflects a complex system of social interaction between the different social roles. The proliferation of social roles is a distinctive characteristic of the sensing phase as the initial pattern of pre-acquisition decision-making process.

In the next section, the different aspects of social roles as related pattern of behaviours of TMT during presentation meeting of sensing phase is provided.

5.3 Aspects of social roles

It seems clear from the above analysis that TMT interaction during sensing phase is not simply explained by individuals' job positions. It is instead a highly complex phenomenon, which has additional factors that add to its complexity such as the social aspect of interacting roles and their pattern of interaction due to additional expectations, as displayed by the presence of identified social roles.

TMT is usually composed of executives who represent a rich pool of firms' diverse calibres, as described in chapter 3. This reflects different competencies and capabilities,

which qualify them to occupy different organisational positions. Such positions are assumed to inform the behaviour of team members as prescribed by the description of their jobs. In addition to that, they have different personal, professional opinions and commitments.

The empirical evidence from the previous sub sections indicates the presence of social roles highlighting the significant effect of the role of expectations and anticipations on TMT interaction during presentation meeting. Expectations which reflect other people's idea about what someone will do, is one way to identify certain type of roles i.e. organisational role in view of their explicit job descriptions. Thus, behaviour in this case is consistent with the description of organisational role that is ascribed to individuals. This is the first category of behaviour which characterises TMT related patterns of behaviour during sensing phase. The role of controller, which is played by the CFO, is an explicit example of easily expected behaviour in this case.

However, a second category of roles was observed from the data to meet additional expectations by others during team interaction; behaviour can also be constructed independently from any ascribed job description, as illustrated by the role of proposer. It is a constructed behaviour in response to the demand of persuasion as demonstrated by the rest of team members which characterised the presentation meeting of sensing phase. In this case, behaviour is fully independent of any expectation that is associated with individual's organisational role and ascribed by job description, to the different individuals who took the role of proposer. This category is labelled "independent role" since it seems a slightly imaginary construction.

A third category of behaviour was also observed from the interviews. The behaviour in this case is a mix of partially independent and partially as ascribed by the job

description of organisational role. The role of arbitrator and facilitator is an explicit example of that. It is labelled "hybrid role" because it combines different behaviour that matches old and newly formed expectations as illustrated in table 9 below.

Table 9 below identifies different types of TMT related patterns of behaviour during sensing phase in this study. They are categorised into three main behavioural categories which are labelled organisational role, independent role and hybrid role. The three behavioural categories describe TMT characteristic patterns of behaviour during sensing phase of acquisition decision making process as described in the interviews.

The first category which is labelled organisational role includes simple behaviour that is ascribed to the individual as indicated by job description. There are two roles of this category which are controller and consultant as illustrated in table 9 below. The organisational role shapes expectations by other members of the team. Behavioural expectations of this category are normative expectations.

The second category, the independent role, is represented by the social role of proposer. Behaviour in this case deviates from the job descriptions of the organisational role to match additional expectations by other members of the team. It is the result of an imaginary constructed role, in anticipation of such expectations by the individual i.e. proposer. It is a learned role that is replicated during team interaction, by different individuals in every acquisition episode.

The third category which is the hybrid role includes behaviour which attends to the two types of expectations that underlay the other two categories during the interaction as illustrated by the roles of arbitrator and facilitator.

Table 9: TMT behavioural differences according to role categories during pre-acquisition sensing phase

Role category	Social roles	organisational roles	Behaviour determined by job description of organisational role	behaviour in term of social role	Evidence on social roles
Independent role	**Proposer**	**CEO, GBDD, EMD$_1$**	Organisational role does not have any influence on taken social role.	Constructed as learned, interiorised and particularised for sensing meeting Initiate creative ideas Champion ideas after they are initiated	*"The selling part is actually quite important in the beginning. Somebody has to sponsor"* (EMD2) *"Yeah but they can… I guess they are part of an idea generation process and the filtering process because they are closer to… you know there individual sectors and markets with some specific knowledge, so they are coming across businesses and ideas that wouldn't be in my radar or indeed the CEO radar, so it's a slightly different approach to us so CEO,[I]and CFO you know we talk about some of the larger players but there is also you know sort of trying to generate these ideas coming from within the business and again I think it goes back to, there is a lot of people who I trust and we trust"*[GBDD] *"I think the early part of the discussion centred on the selling"*[EMD2]
Hybrid role	**Arbitrator**	**CEO**	Preside Executive Board Decision maker of high level decisions Guide and direct strategic change Articulate strategic change Select board members	Constructed as learned. Organise on-going interaction. Reserve constructed opinion to the end of interaction.	"The CEO role during the selling debate is set back and listens carefully."[EMD2]
	Facilitator	**GBDD**	Develop group business Update opportunity list	Constructed as learned Construct *observation based opinion* Offers insightful analysis of proposed opportunity Integrate proposed opportunity into existing business plan	*"...well GBDD will generally, I mean GBDD played the same role in most of those discussions."* [CEO] *"...he is very good at drawing out a structure of how things can work, he can visualise something and take a discussion and say could it look like this and he can draw it out on a piece of paper, and he is very good at putting some structure to planning discussions so Sylica is a good example"*[EMD$_2$] *"As I say he will always be much more about where is the fit? Where*

Role category	Social roles	organisational roles	Behaviour determined by job description of organisational role	behaviour in term of social role	Evidence on social roles
					are we going? Does it work; you know, what's the market? He will have the same sort of input almost on every occasion..." [CEO]
organisational role	**Controller**	**CFO**	Finance Director and Secretary Responsible for financial planning Report financial performance to supervisory Board of Directors	Consistent with designated position given norms Create dissension by disagreeing to proposed acquisition	"*His job, his role in the business is to challenge and to protect financially, his body language and demeanour is very politely challenging. So EMD$_1$* (proposer of Pylica) *then has to do some more selling to persuade him.*"[EMD6]
	Consultant	**EMD$_3$**	Sales and Marketing Director	Consistent with designated position Observe interaction Minimum participation Provide industry related advice	"*You know if EMD$_3$ said yeah looks alright, I wouldn't necessarily go well if he thinks it's alright it's okay. So that-- because he won't have tested to the same degree. But equally you know it doesn't mean to say that he won't have asked a few questions and you know and maybe because he is coming from a different angle, he will spot something that the rest of us haven't looked at and that quite often happens. It's somebody who is slightly more distant can actually go well what about that and everyone goes yeah that's a good point, what about that.*"[CEO]

Table 9: continued

Roles within organisations are purposive because they serve a purpose. This is evidenced by the fact that each member of the team occupies a particular organisational position. However, social roles describe constant behaviour of team members during team interaction, in the presentation meeting of sensing phase, to make an acquisition decision.

This proves that individuals can take on a number of different roles which are needed because of a change of circumstances during each presentation meeting, which might reshuffle the assignment of some roles to a particular individual, for example the role of proposer. In this case, the role of proposer is taken by the executive who sees the opportunity. Taking a different role is a mechanism individual team members use to adjust to new ascribed attributes, which are assigned to them by the rest of the team members in order to meet their expectations.

Therefore, an individual's actual behaviour as related to a position within the current team structure reflects their own ideas of what is appropriate for them to do. Also, it shapes the expectations of others regarding what is expected as appropriate from them, which is evidenced by the interaction among the five roles.

The above table summarises social roles as replicated patterns of behaviour during the presentation meeting of the sensing phase per each acquisition episode; and not just limited to the behaviour of executive's organisational position.

Therefore, the interaction between TMT cannot be explained in view of their normative behaviour only in accordance to their organisational position as one of the directors explains:

> "I think in terms of dynamics it played out exactly as we would have said it would do, as probably as you would have figured, it would do from talking to the people. So it then became more, the conversation moved more into how do we develop this business, what you know okay,

what were the positive upside opportunities, what's the potential. So it became a bit more of a

strategic discussion around all of that." [EMD$_2$]

As indicated above, TMT interaction is mainly about a conversation which develops to cover all strategic aspects of proposed potential opportunity. For example, financial aspects in this conversation are usually initiated by the CFO which is consistent with his organisational position, EMD$_2$ adds some clarity to this point:

"But then as you would expect CFO then eventually pulled, he obviously sat a bit more quietly

for a while and started to talk about well, how much do we think we're going to have to pay for

this and moved it onto his area of expertise which is negotiating a financial agreement. You

know what is that this business is currently worth, how we value, what we think these guys that

own it would accept" [EMD$_2$]

Thus, the sensing meeting according to the above illustration suggests, owing to the number of different roles, the TMT interaction to be a complex phenomenon. The complexity of TMT social interaction during sensing phase arises from the eclectic mix of their patterns of behaviour which are related to their organisational positions and the additional five social roles which represent additional characteristic patterns of behaviour.

The reason of such complexity is explained by what underscores TMT behaviour. A number of different expectations, which are reflected by constant presence of social roles, underscore team behaviour. Expectations influence team interaction through anticipation as a result of team members working together and knowing each other. Such acquaintance influences the on-going discussion of proposed potential opportunities as supported by the comments of one director:

"yeah it's from working with them for a significant number of years, understanding how they

think, where they come from and preparing accordingly"[EMD$_1$]

Thus the mutual familiarity of team members is interpreted to be the starting point of establishing a tacit reciprocity among team members during sensing phase. This in itself establishes expectations of particular behaviour different from the behaviour associated with their organisational positions.

In addition to that, the proliferation of different roles as provided with detailed empirics in the previous subsections, facilitates categorising social roles that are peculiar to presentation meeting of sensing phase within Plastica.

Social roles are identified by overt signs of behaviour which match expected behaviour that is not prescribed by organisational position. Overt signs of behaviour are the explicit sign of each social role. It responds to additional expectations by members of the team. Social roles in this sense manifest additional behaviour by individuals to meet additional expectations, as previously explained.

Main activities of social roles during sensing phase include activities to propose potential opportunities as demonstrated by the proposer; facilitating as demonstrated by the facilitator involves providing insightful analysis and planning of the new proposed opportunity by creative thinking as expected from all informants. This might help to reduce, in varying degrees, current emotional and resource commitment of organisational roles associated with the division of labour through the interaction of TMT. In fact, this is expected to help the team to conceptualise proposed opportunity within the overall business plan by sharing the insightful analysis of the proposed opportunity as opposed to the hindering behaviour of the controller at the level of single role which considers uncertainty as threatening.

Other features of the role are demonstrated by the act of advising with regards to sales and marketing as provided by the consultant, to challenge and oppose and to perform

financial check points as demonstrated by the controller and finally to arbitrate at the end of the meeting by balancing the course of interaction.

Interaction between social roles is encouraged by the CEO who takes the role of arbitrator to nurture a culture of team openness and ensures participation of all members to allow proper discussion on proposed opportunity. A management style which excludes the presence of politics and therefore potential conflict as the CEO suggests:

"Yeah I mean I don't, yeah I don't think we don't sort of operate in that political environment where everything is done outside of the meeting because I think I generally try and avoid people sort of picking off. You know I would rather we have a proper discussion and encourage a proper discussion at the boardroom table rather than, you know, I don't like it sort of EMD_1 going and knocking off EMD2 and knocking off people so they won't be coming to the table, everybody goes yeah that's okay"[CEO]

As a consequence it can be construed that a thorough understanding of one role in isolation, such as the organisational role, cannot fit every circumstance. Furthermore it is believed that functional roles are the potential source for rigidity in fast changing environment. Thus social role as another aspect of TMT behaviour during sensing phase releases the embedded competencies of individuals and motivates a space for free interaction and share of available specialised knowledge and expertise. This view is captured eloquently by EMD_2 who states that:

"GBDD is always the one who will add structures to the market understanding. So, you know, he will always... If we're discussing how we will go about selling our products or how we'll go about acquiring a business that's selling these products into a market, he will always bring a structure .... I suppose the rest of us are fairly good at contributing to that as well, but GBDD in terms of understanding across the group has got a much better sort of overview of it all. EMD_3 in Building Products, I mean, he's been with the company since...virtually since it was

founded. So, you know, he been right way through the whole process. EMD1has got a different

skill set. He and I are probably a bit more similar in some ways" [EMD$_2$]

Hence, the input of all members is encouraged during presentation meeting as the use of rational measures in discussing opportunities which is normally done by the controller is insufficient. The interaction between social roles per se indicates that the organisational position related role, as personified by the role of controller, is insufficient during the sensing phase of acquisitions. This suggests that interpreting available information into potential opportunity is more creative thinking rather than just analytical, as evidenced by the presence of facilitator role together with other roles.

The need for additional behaviours to meet additional expectations by others, with regards to deciding on potential opportunity determines the need for additional and different types of behaviours. Apparent behaviour of TMT during the sensing phase illustrates the dynamics between roles as a mechanism, which may be interpreted to deal with an uncertain future during strategic decision making of uncertain acquisitions.

Therefore, the nature of the task decides the organisational roles that reflect the presence of necessary behaviour, only in the case of controller and some aspects of the arbitrator with regard to being the final decision-maker, whereas the social role is portrayed by the additional apparent behaviour of individuals. Additionally, the relatively small numbers of people who are involved in the decision-making process make the differences between the roles appreciable.

The above behavioural aspects of TMT during interaction provide signs to standardise roles. Role signs can be determined by the underlying expectations of individual behaviour, which explains the content of a role as illustrated in table 9 above. They can be inferred collectively, which explains TMT behaviour during the sensing phase and not the presence of a single role by its own appearance. Collective nature helps to

predict similar demands of similar positions, even when it is taken by different occupants as in the example of the proposer.

The presentation meeting during the sensing phase provides the milieu where social roles proliferate to adjust to expectations which are typical for such a meeting only and dissolve once the purpose of the meeting vanishes. The peculiarity of such expectations of this meeting, and their consistent effect on individuals' behaviour across the four cases, seems to help individuals to internalised such roles and express them during team interaction as overt enactment. This supports the notion of experiential learning, which helps to standardise such behaviour within such context.

Thus, the content of each social role and its overt behaviour facilitates the categorisation of social roles during sensing phase. This explains how the different aspects of roles helped their categorisation under three main categories as previously labelled: independent role, organisational role, and hybrid role in terms of role content and nature of behaviour, as illustrated in table 10 below.

Table 10: Role content and nature of behaviour during sensing phase

Category of role	Content of role	Nature of behaviour
Organisational role	Normative expectations	Static role play in consistent with expected norms
Independent role	Constructed expectations	Dynamic role take as temporary detached object
Hybrid role	Constructed - normative expectations	Role take/play is adjusted to milieu specific expectations

The above table displays different interacting role categories during the presentation meeting of the sensing phase. Each individual occupies a different organisational position, as described in chapter 4. Each organisational position is defined by a normative set of responsibilities ascribing an expected behaviour to its holder, as illustrated in table 9. Each holder of an organisational position is expected to play a role

in accordance with that position. In this instance behaviour and job position are inseparable.

Actual behaviour of individuals in this case is clearly expected by others. That is because behaviour becomes a pattern of conduct which mirrors prescribed organisational positions like blue prints i.e. job descriptions, responsibility, scope, etc. However, some executives' behaviour among TMT members during the same meeting seems to deviate from their organisational positions. Therefore, it is accounted for as some additional distinctive behaviour that is peculiar to this meeting. It reflects the two interacting behavioural categories during the sensing phase.

Another observation can be made from the above categorical analysis of roles regarding the dynamics of interacting roles among TMT which can be also understood from table 7. Some roles were populated by more than one executive, for example the social role of a proposer. This role is therefore a dynamic role. However, the role maintained constant presence across the four acquisition episodes, as illustrated in table 7.

Other roles, which are constantly populated by the same individuals such as controller, consultant, facilitator and arbitrator, are static roles as illustrated in table 11 below. That is because within this case the role was populated by the same individual.

Table 11: Frequency interacting roles during sensing phase

organisational position	Social roles				
	Controller	Proposer	Consultant	Facilitator	Arbitrator
CEO	-	2	-	-	4
CFO	4	-	-	-	1
GBDD	-	1	-	3	-
EMD_1	-	1	1	2	-
EMD_2	1	-	3	-	-
EMD_3	-	-	4	-	-

The act of populating different roles results in active interaction among the same set of individuals. This is because it keeps reshuffling the existing order of some members into a new order contributing to the construction of team structure accordingly. This was observed to have a releasing effect on existing capacities among the same set of highly qualified experts in response to team demands, for example, proposing, challenging, arbitrating, facilitating and advising.

The above themes are constructed during the interaction as part of team interaction where the proposer is the centre of such interaction. Although each individual will enrich the role differently, as in the case of a dynamic role, the presence of role enactment was observed to be always consistent across the four cases.

However, the proposer's ability to understand other team members' expectations, and interact accordingly, appears to influence the interaction. Such influence is further explored through the establishment of constant relationships, which help to standardise team interaction during the presentation meeting of the sensing phase. This will be further discussed in the next section in terms of the nature of relationships between interacting roles.

5.4   Nature of relationships

The previous sections provided empirical evidence on TMT social interaction during the sensing phase illustrated by the presence of five interacting social roles during the presentation meeting. As a result a number of observations were made from the interviews regarding the particular features which characterised the team interaction during that phase.

The interaction process between TMT during the sensing phase of an acquisition decision-making process seems to be a collective endeavour. Collectiveness involves

the participation of all members of the team, as corroborated by the interviews. Their participation during the on-going interaction was accomplished through their careful observation of the on-going interaction, and providing comments which fed into the interaction process, EMD_2 provides one such comment:

"So everyone listens very carefully and makes notes…it's not an agreed standard sitting format, but we always tend to sit in the same places when we go to meetings… So we all sit in the same place." [EMD2]

The interaction process among TMT, as described above, is self-regulatory where participation entails the active listening and analysis on the part of every member. However, two main features that were observed from the interviews explain the manner of this interaction. The absence of conflict and the emergence of interdependent sub-relationships characterise TMT interaction during the sensing phase.

The collective effort by team members seems to exclude the presence of conflict, as supported as one of the directors suggests:

"I don't think we've ever come to a conflict on acquisitions" [EMD3]

The absence of conflict provides a significant feature which characterises team interaction during the sensing phase of acquisition decision-making. The process is contrary to their interaction during other meetings i.e. making decisions about internal projects, which might normally produce conflicting opinions and views as GBDD explains:

"Yeah more internal projects where we go internal, I see more conflict or--because I suppose in an acquisition somebody brings the acquisition to the table, they don't, at that point they don't necessarily, okay they may you know they are proposing it so therefore, they have an attachment to wanting to make it"[GBDD]

Having the notion of roles during that phase, the above quote suggests a particular type of interaction, which seems to revolve around one basic characteristic pattern of behaviour represented by the role of proposer. Therefore, we can assume that the only independent role, in terms of role categories during the sensing phase, plays a central role in the course of team interaction while the team is making sense of potential opportunities.

Centrality is explained by the fact that this role is held responsible and accountable for the proposed acquisition as one member admits:

> "*So you have to play the role dependent on who's responsible*" [EMD2]

The proposer role being the initiator of team interaction is symbolised in a broad sense as the entrepreneur who is the founder of the opportunity, as empirically described in the previous sections. In this case, the proposer is the original source of the opportunity acquisition that brings new idea to the team. This triggers the first set of interactions among team members, which illustrates the interaction between the proposer and the rest of team members. The proposer engages in an act of proposing the identified stimuli as expected by the whole team during the presentation meeting. According to EMD_2:

> "*The selling part is actually quite important in the beginning. Somebody has to sponsor*"
>
> [EMD_2]

As such, this constructs the behaviour of the proposer, which determines his relationship with the team, that is, to engage in an act of issue selling, to hold the responsibility of the proposition and be accountable for delivery. Proposer engagement with team members is constructed, as previously mentioned, and based on his ability to

anticipate such expectations where he can identify the demands of the team members, EMD_1 explains as follows:

"*Well as I know how they sort of tend to react, and as I said they therefore you try and head off any negatives with the positives. Which I think...I... you know effectively did, and if you are confident if you are willing to put the case forward then that you know is part of the.. is part of the process...*"[EMD_1]

It seems clear from the above quote that the ability to anticipate team expectations explains the manner of tacit reciprocity within the team, which is initiated by the proposer and the rest of team members. This is because the expectations, and anticipated expectations, seem to have a subtle influence on the socially constructed patterns of behaviour during sensing phase. These expectations and anticipations impose implicit obligations between individuals where demand and response create tacit reciprocity within the team. Tacit team reciprocity highlights the overall collectiveness of team interaction, and the specific emergence of sub-relationships among some roles.

Interestingly, two main relationships were captured during the interactions, as identified from the interviews, to dominate the scene of the presentation meeting during the sensing phase. It is believed that this was due to their significant impact.

The first sub-relationship during team interaction was illustrated by a heavy exchange between two main characteristic patterns of behaviour. It is illustrated by the "proposer – controller" interaction.

A potential explanation of the consistent behaviour of the controller toward the proposer and therefore, to create this steady interaction between the two roles, as evidenced from the four acquisition episodes, may be because the controller's concerns, which are influenced by his organisational role, are fixed across the entire business group and not

limited to particular area of his own. Therefore, it fixed his associated pattern of behaviour during sensing phase. One member explains this relationship as follows:

> *"He is consistent because he has a consistent—I would say GBDD and CFO probably have a consistent approach because they are at the group. They don't have their own business to be concerned about."*[EMD2]

Although the two positions referenced in the previous quote, and represented by two different characteristic patterns of controlling e.g. controller and facilitating behaviour such as the facilitator, are consistent in their approach during the presentation meeting, the proposer-controller is an interesting relationship because it reflects a contentious relationship that creates dissension within the team implying a hindering effect.

Thus, this evidence on the repetitive pattern of behaviour between the two roles, during the presentation meeting of making sense of a potential acquisition opportunity suggests a stable pattern of proposing-controlling. Therefore, the repetitive pattern of the proposing-controlling relationship can be expected during the sensing phase.

The interaction between the two can be understood in relation to the presence of a contingent entrepreneurial pattern of behaviour roles, which are represented by the proposer and the constant opposing act by the controller during the meeting. It is a specific relationship which emerges from the interaction between the two patterns of behaviour.

The behaviour of controller mirrors the organisational position which ascribes his set of duties. Thus, expectations and anticipated expectations of this role, which was described in the previous section, explain the expected hindering effect of this role on the on-going interaction. This is because the analytical evaluative input, which is shaped by the

CFO speciality, results in dissension-creation during the first part of the presentation meeting.

The second interesting interaction found from the interviews which significantly impact on the result of team interaction, is illustrated by the emergent sub-relationship between the "controller – arbitrator". There seems to be a subtle coordination between the two roles, which seems to influence the direction of the interaction at some point. This can be understood from the words of EMD_2, which indicates that while the controller interacts with the proposer, he tries, simultaneously, to assess the arbitrator as well:

> *"Or he* (CFO) *may look at CEO and see what, try to gauge what he is thinking."* [EMD2]

This reveals the significance of the controller role, in relation to the previously explained neutral position, which the arbitrator purports to maintain during the interaction. Another potential explanation might be that the arbitrator is trying to evaluate the controller's interaction with the proposer, to form his opinion based on the direction of the interaction. This subtle interplay between the arbitrator and the controller implies a tacit mutual understanding between them during the sensing phase.

At the point of winning over the controller by means of persuasion, another stage of the interaction during the sensing phase develops. It is represented by the emergence of another interesting relationship between them: controller - arbitrator.

The interdependency of emergent sub-relationships during team interaction is illustrated by the controller-proposer relationship dependency on the development of interaction between the controller and the proposer. The second relationship marks the second stage of the debate.

The shift in the interaction starts a financial debate, which slightly disengages the proposer role and marks the end of the selling part of the debate, to become more

focused on the controller and the arbitrator deciding to frame a financial offer. This relationship is evident in the comments made by EMD$_2$:

> *"So CFO, winning CFO over and persuading him of the upside, then legitimized CEO being supportive as well and saying okay. So then the two of them sort to talk about how we will frame an offer, how do we make sure we pay the absolute minimum we can get away with, how would we pay for it, how you know do we give them shares, do we do this, do we do that. So it became a more financial debate between them as opposed to EMD1 (proposer)"* [EMD2]

The outcome of the "controller-arbitrator" relationship facilitates the establishment of a required consensus, within the team over uncertain acquisitions, to reach a decision. The above debate typologies seem to represent the main interactions among TMT during the sensing phase. The social interaction among TMT seems to feature the initial phase of the acquisition decision-making process. This is illustrated by the emergence of two main interesting relationships during the presentation meeting of the sensing phase.

Table 12 below illustrates TMT social interaction, which captures the mechanism by which the typical dissension among members of the team over the identification of naturally uncertain acquisition opportunities as a feature of initial stages of acquisition decision making is transformed into consensus during a lively sensing phase. TMT social interaction in itself represents managerial capability to handle an uncertain future during a process of decision-making for acquisitions as a process of social construction.

The table below also summarises the general team interaction and captures two decisive relationships which are significant in the construction of acquisition decisions through a mechanism of social interaction

Table 12: Contingent relationships among TMT during sensing phase

Relationships	Interacting roles	Description
Persuasion	Proposer – team members	Purpose of relationship is to sell an idea of acquisition opportunity to other team members by adjusting behaviour to meet their expectations and demands for the proposing act.
Dissension creation	Proposer– Controller	Purpose of relationship is to evaluate proposed idea by analytically challenging proposer using formal analysis methods. It hinders and restricts the proposing act.
Consensus creation	Controller - Arbitrator	Purpose of relationship is to transform dissension into consensus in view of on-going interaction. The outcome of this relationship is to articulate the acquisition decision which is the actual validation of proposing act.

In summary, the nature of relationships among TMT, during the presentation meeting in the sensing phase, summarises the purpose of the interacting roles during the interaction. This purpose is reflected by the repetitive pattern of behaviour, combined with the formation of decisive relationships, which engages the team in dissension-consensus creation relationships.

Similarly to role content as a distinctive sign of role, the purpose of interaction and the relatedness of interacting roles in forms of specific combinations, is another distinctive feature of TMT interaction during the presentation meeting in the sensing phase.

This facilitates the categorisation of emergent relationships between interacting roles during that meeting as functioning relationships. Thus, this provides a better understanding of TMT interaction during that phase of the acquisition decision-making process. Purposefulness and relatedness of interacting roles explain TMT action and interaction which construct the acquisition decision during the sensing phase.

This chapter provides empirical evidence which emphasises the role of the human agent beside the systemic and analytic approach, represented by social roles during sensing phase. It highlights the humanised nature of the decision making process. The next

chapter provides a thorough discussion of empirical findings in this chapter in view of existing literature as reviewed in chapter two.

Chapter six: Discussion

This chapter presents a discussion of the findings in chapter five. Chapter 6 is composed of three sections discussing developed theory about dynamic managerial capability during sensing phase. The chapter starts with the first section highlighting issues of reflexivity and its impact on discussion of findings given the reflexive nature of the methodology of this study. A brief reminder then follows about the research question and research aim to link them with the main research findings.

The chapter then discusses in detail the main insight of the findings in in relation to available supportive literature to position findings within existing literature emphasising on their contributions to the micro foundation of dynamic capability in the remaining two sections.

The second section analyses the general insight gained from the identification of experiential learning and social roles as two sources of dynamic managerial capabilities. The third section is composed of two subsections discussing the mechanism of how the two sources have enabling influence on the sensing phase of pre-acquisition decision making process.

6.1   Discussion and reflexivity of study

Given the qualitative nature of this study implies an on-going dialogue between me as the researcher, my subjects and the data as the methodology emerges. As a consequence, this entails maintaining a degree of disciplined reflexivity (Weick, 2002) throughout the research process.

Reflexivity within research context relates to the researcher's awareness of ones' self being part of social or political context with mutual influence on the object of study

(Alvesson and Skoldberg, 2004). It is a complex concept which involves questioning the researcher's thinking of experience and ways of doing the research (Haynes, 2012).

Despite the lack of clarity about the practice of reflexive research, its significance to qualitative studies is acknowledged (Haynes, 2012). It is argued that questioning the motivation of researcher, underlying assumptions of the study and the position of the researcher within these assumptions and the entire research process enhance researcher's awareness about these issues. Additionally, it increases the sensitivity of the researcher as to how these issues might influence the research progress and outcomes.

The underlying assumptions of the researcher about the nature of reality being socially constructed are drawn on by methods of data collection. Given the aim of this study it is preeminent that the researcher captures the multiple socially realities as constructed by the respondents. Hence, reflexivity draws on social constructionist assumptions to highlight subjective, multiple constructed realities.

The realisation of one's views regarding the nature of reality being socially constructed and cannot be understood without seeking meanings from subjective experiences and views as given by respondents themselves has shaped the position of the researcher which was further refined during the data collection process. In fact the field work proceeded iteratively between data collection, reflection and analysis.

The researcher openness during the entire research process has marked this study along the different stages including analysis and discussion. The researcher revision of the literature at the beginning was very narrow; this was with a view to delimit the boundaries of the main research area, main readings and definitions. Hence, my initial interviews were a reflection of intentional ignorance in order to explore managerial

agents' prospects and views on sensing of potential opportunities. In other words, ignorance was a deliberate strategy to facilitate a *"ready to hand engagement"*(Weick, 2002) to guarantee a smooth flow of managerial reflection and interpretation of how things happen in their constructed world.

The researcher's awareness of the impact of underlying epistemological and ontological assumptions of the study coupled with the lack of in-depth knowledge facilitated the selection of common meanings from respondents' narrations as they emerged to identify themes with potential explanatory power of how potential opportunities are interpreted. My role here was to search for similarities in the narration of my subjects perceptions to identify shared views from multiple realities to establish a common ground. The notion of role provided a core meaning for further exploration. Therefore, a change in my position was unavoidable to take more directive role using the laddering technique aiming at nesting a story around the emergent core meaning of role.

At this stage I consulted the literature in a more purposeful and comprehensive way actively seeking and analysing theories which can provide a plausible explanation of the stories that were emerging within substantive theories that underlay this study. Social science research exploring how organisational routine such as acquisition decision making entails additional literature that can explain human interaction within such routines. This can unveil how the act of decision making is humanised through the exploration of social roles and enactment of expectations in teams using role theory. Therefore, the outcome of the discussion chapter is a set of idiosyncratic statements reflecting the personal views of managerial experiences in action within a particular context as described in chapter four. Additionally, such statements are the interpretation of individuals' interpretation which was aided by a retrospective listening to tape

recording which provided the researcher some time to be detached from the flow and separate from the fact as Weick refers to *bias* (Weick, 2002).

The above description summarises the researcher's unstructured approach in data collection and analysis guided by emerging themes and desires to contextualise them and create meaning using literature to provide a suitable explanation of DMC. This was evident by my iterative approach of analysis and consultation with the subjects as the data collection progressed. As such meaning was socially negotiated inter-subjectively between my subjects and me accounting for greater confidence in meanings generated from the raw views of the respondents.

Developing a theory to explain DMC construct aimed at addressing the research question and therefore guided my selection of the most plausible explanation. However, a different researcher with a different interest might have generate different meanings and seek different explanation aligned to a different aim. It is the nature of qualitative research which is acknowledged to be explained partly by the researcher's views on what is insightful and interesting in collected data (Seale, 2000). After highlighting the reflexive nature of this study, a brief reminder is provided about the research question and research aim to link them with the main research findings.

Sensing of potential acquisition opportunities is, arguably, a part of the decision-making process that exposes the most dynamic managerial capabilities of TMT. It requires managers to confront uncertainties of future opportunities and make sense of how these future opportunities link with future organizational capabilities.

Chapter two describes managerial challenges associated with making strategic decisions that are uncertain. This reflects a dynamic managerial capability (Adner and Helfat, 2003). As described in chapter two, the concept of firm is conceived as systems of

information processes and decision making that involves complex strategy processes resulting from internal and external conflicts, which may politicise strategy process activities. This description points out an important aspect of the decision making process being managed by human actors who will experience emergent social relationships during their personal encounter (Goffman, 1990) to reach a strategic decision. Social complexity of the decision making process (Burgelman, 1983a) using DC lenses is the subject of this exploratory study.

It is mainly to explore how managers at TMT make acquisition decision under uncertainty during sensing phase. This thesis especially aims at understanding the effect of their social interaction during that phase, which enables to answer the following question: "How do patterns of social interactions support dynamic managerial capabilities of top management teams?"

In addressing this research question, the study aims to explore the following research issues which were identified from the initial review of the literature and during the process of data collection and analysis:

1. Potential sources of dynamic managerial capabilities in TMT.

2. Influences on sensing phase of pre-acquisition decision making process.

3. Social patterns stabilising sensing phase of TMT.

Therefore, the structure of the discussion addresses the above issues in the same order as the elaboration on one point guided the inquiry and analysis following a similar pattern, leading to the theory development about DMC in terms of TMT ability to handle uncertainty of strategic decision making.

In relation to the first issue, the exploration of DMC sources is contextualised at the onset of this study within the acquisition context as it is a dynamic capability of the firm

(Eisenhardt and Martin, (2000), and having the notion of DC embeddedness (Grewal and Slotegraaf, 2007). As it is discussed next, indeed, pre-acquisition routines and post-acquisition routines are acknowledged in DC literature as effective routines.

Existing literature related to effective pre-acquisition routines argue that effectiveness of such routines lay in the ability to assess cultural similarity and consistency of vision (Eisenhardt and Martin, 2000, Larsson and Finkelstein, 1999). This study adopts a different view on exploring effectiveness of pre-acquisition routines as a potential source of DMC.

In other words, a general contribution of this study to knowledge is the identification of sources of DMC. DMC can be associated with experiential learning and social interaction. Sensing represents the phase where these mechanisms are exploited by TMT in acquisition decision making to handle uncertainty. The effectiveness of pre-acquisition routines, particularly during sensing phase, can be understood by conceptualising TMT experiential learning and patterns of social interaction during sensing phase, hence, its identification as a source of DMC. Put differently, findings in chapter five highlight the importance of experiential learning and social interaction in collective sensing processes. This expands the micro foundation of DC or DMC mainstream literature by asserting their role as sources of DMC to deal with inherently uncertain sensing phase. Thus, the first issue elaborates the general contribution of this study to micro foundations of organisational capabilities.

For the second issue relating to influences on sensing phase, this study captures the mechanisms by which TMT exploits identified sources that reflect their DMC. Experiential learning and repetitive social patterns of behaviour during TMT interaction are two main mechanisms which enable a stable collective sensing behaviour in TMT.

The notion of routine formed a backdrop to this contribution. The DC literature posits that experiential learning (Zollo and Winter, 2002) is one of the mechanisms which contribute to the development of DC by relying on a systemic approach and existing routines and activity. The findings in chapter five confirm the heavy reliance of TMT on systemic approach to identify potential opportunities as part of sensing. However, this does not adequately explain its own managerial judgement during sensing phase. Findings revealed that TMT also relies on social patterns of interaction as an additional mechanism to deal with inherent uncertainty into sensing process of identifying acquisition opportunities. This leads to the more specific contribution addressing the third issue.

Concerning the third issue, social patterns of interaction among TMT are found to have a stabilising effect of collective sensing phase. That is explained by role theory (Biddle and Thomas, 1966) which defines role as a repetitive pattern of behaviour. The repetitiveness of behaviour is explained by the fact that people learn their behaviour in a given situation and adopt what is assumed to be a proper behaviour within a milieu. Thus, the use of experiential learning in terms of behaviour explains how behaviour gets routinized and consequently stabilised the sensing phase. Stable behaviour is the result of implicit social system. The identification of three categories of social roles; organisational, independent and hybrid roles structure team interaction and responsibilities facilitating a collective sensing phase. This contribution addresses the third issue of exploring how social roles stabilise sensing phase.

The previous three main contributions address the identified gap in the literature of the micro foundation of DC as discussed in chapter two. The lack of knowledge about the influence of social complexity on the development of DC is addressed by investigating managerial decision making of inherently uncertain acquisitions. The main insight of

this study suggests stable social interactions determined by the social role accompanying experiential learning in stabilizing collective sensing process of TMT.

In the remaining parts of this chapter, a framework is developed based on empirical evidence to represent elements of the above contribution. This is followed by a discussion focusing on locating the above contributions within extant literature, as discussed in chapter two, providing supporting evidence from findings in chapter five.

Figure 8 below illustrates collective sensing in TMT as a DMC. This results from the stabilising effect of TMT reliance on both experiential learning and stable social patterns of interaction, as the two main sources of DMC to explore potential acquisition opportunities in the course of pre-acquisition routine.
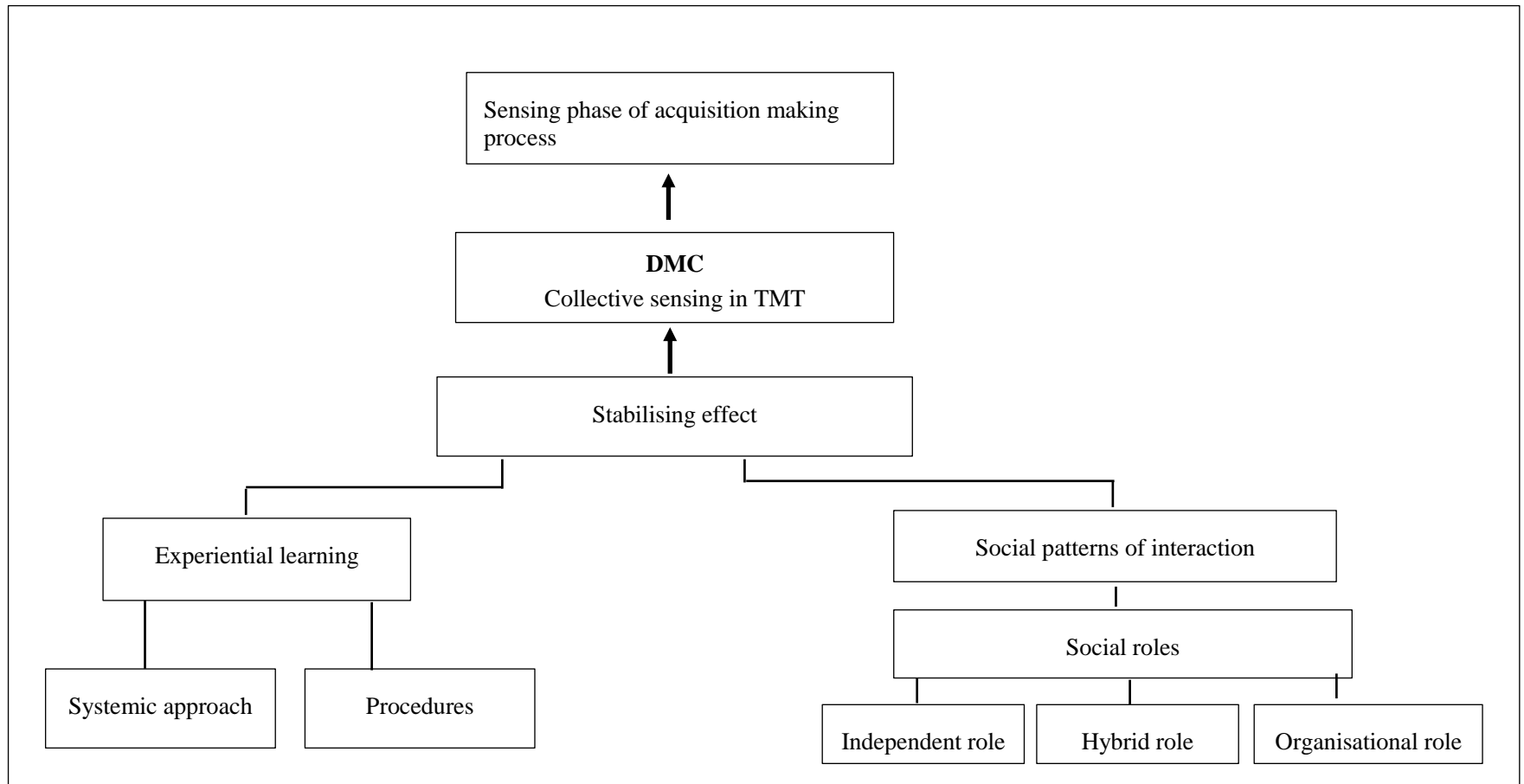
Figure 8: Theoretical framework for Dynamic Managerial Capability during sensing phase

Findings in chapter five provide evidence which suggests that experiential learning patterns and patterns of social interactions will increase stability of collective sensing process in TMT. Thus, the sensing phase, as far as acquisition is concerned, is the phase which demands dynamic managerial capabilities (DMC). This implies that managerial cognition (Gavetti, 2005) provides insufficient explanation of forward-looking on its own among TMT during sensing. Stable patterns of experiential learning and social interaction can lead to more effective sensing. Hence, the two identified sources provide us with key components which help to abstract the role of TMT as DMC during that phase. TMT's role during sensing phase is mainly about their ability to stabilise the exploration phase of the decision making process of uncertain acquisitions as a result of their experiential learning and developed social patterns through their interaction.

In reference to the discussion of managerial studies in chapter two, Adner and Helfat's (2003) framework suggests the interplay between managerial human, social and cognitive attributes to underlay managerial studies. This framework is used to lay the discussion of findings along the three issues mentioned above as it provides a useful tool that enables capturing the roots of how managers arrive at such decisions having the on-going debate on the micro foundation of DC and the role of DMC (Castanias and Helfat, 2001).

In order to provide a more holistic and consistent views of the findings in chapter five, the following section provides a set of statements that consolidate the key theoretical contributions.

6.2   Sources of DMC

This section addresses the first issue regarding sensing phase in terms of identification of sources of DMC illustrating top executives ability to exploit different mechanisms

that help them handle uncertainty of acquisition decision making. Having the three attributes which underlay managerial studies, it is important to discuss how they help explore TMT's role during the sensing phase.

The inadequacy of cognitive literature on its own to explain the sources of DMC as discussed in chapter two calls for paying additional attention to other attributes, for example human and social capital, to complement our understanding of different sources of DMC. Therefore, the rest of this section discusses how findings of this study fill existing inadequacy of cognitive literature, as analysed in chapter two on DMC, in order to relate the general contribution of this study.

The concept of sensing demands TMT entrepreneurial and leadership skills in order to sustain DC of the firm (Teece, 2012). However, sensing is inherently uncertain because it is about responding to market changes by making future decisions. It is about a cluster of different activities, which enable TMT identification and assessment of new opportunities within an uncertain future (ibid). The notion of uncertainty is characteristic of the sensing phase posing it to be the most challenging phase to TMT and therefore, demands DMC. Thus, it is believed that sensing is the most challenging stage for DMC demanding their entrepreneurial and forward-looking decision-making.

Broadly, available literature on strategic decisions asserts the uncertain nature of such decisions. Thus, they present the main sources of TMT cognitive challenges as noted by Teece et al. (1997, P: 1323) who emphasised a firm's vulnerability if sensing, creative and learning functions are left to the cognitive traits of a few individuals only. Given that sensing is inherently chaotic and unstable, this study contributes to the above argument due to the fact that findings of this study assert that sensing should not be left to individuals only, but become a collective endeavour.

DC literature is about stability of learned patterns (Zollo and Winter, 2002) which explain how DMC enables managers to engage in stabilising the sensing phase through the interplay of human, social and cognitive capital. It is not about the reliance on individual cognitive traits, as Teece and his colleagues (Teece et al., 1997) warned.

The relationship between stability of patterns and collective sensing can be explained by the TMT entrepreneurial decision-making discussed in chapter two. Additionally, creativity of TMT within the context of these findings is to some extent about TMT's ability to coordinate their routine. According to Teece (2012, P 1398) this implies specialised elements of decision making relying on their social interaction and exchange of accumulated experience to mitigate the uncertain element of decision making.

Thus, TMT's ability to stabilise the collective sensing phase by reducing cognitive perception of uncertainty effect reflects their DMC during sensing. Hence, the first contribution of this study is the revelation of DMC in stabilising the sensing phase during the routine of acquisition decision making process relying on experiential learning and stable patterns of interaction, rather than cognitive traits alone. According to the findings of this study, stability as an act of DMC during the sensing phase is defined as the managerial ability to mitigate uncertainty during the sensing phase of potential opportunities relying on sources other than individual cognition.

Stability of sensing phase provides them with a level of assurance that is necessary when making a decision about uncertain opportunities. Contrary to that, lack of stability increases uncertainty which fails decision making of potential opportunities.

According to the above definition, the lack of certainty that features strategic decisions demands managers to create a sense of stability enabling them to overcome the limitation of human cognition, as acknowledged by Gavetti (2005) and reach

collectively the necessary consensus for decision making of proposed acquisitions. This consists of the identified demand of entrepreneurial, creative and imaginative management during sensing reflecting managerial ability in the course of action which they take to judge potential opportunities (Teece, 2012).

Although Teece (2012) conceptualises the sensing phase in relation to DMC as being an entrepreneurial creative managerial action, findings of this study do not provide any direct supportive evidence of that. Instead, it provides direct evidence on the role of experiential learning and TMT social interaction as a source of collective sensing. It draws on the essential notion of pattern stability in order to contribute to cognitive limitations that were identified in chapter two by emphasising the significance of team learning and social interaction during the decision making process.

Team social interaction during the sensing phase provides the milieu for new knowledge to be created externally and leads to acquisition decision. This depends on team interaction and exploitation of individual capacities by engaging managers in activities such as scanning, learning, creation and interpretive activities (2007). However, such activities do not result from cognitive, evaluative and inferential skills of the organisation and its management, but from the implicit role system, which determines activities and responsibilities of members of the team during the interaction. This agrees with Grant's (1996b) framework that suggests that the primary role of an organisation is knowledge application rather than knowledge creation by processes of accumulation, combination and exploitation of resources (Grant, 1991) as described in chapter two.

Hence, the findings of this study support the fact that forward logic thinking and exploration of uncertain opportunities are not a mere cognitive function of individuals,

but a function of managerial ability to mitigate uncertainty by stabilising the collective sensing phase relying on additional sources for the sensing phase. The mechanism by which the two sources function is addressed in the second and third issue which focus on discussing the three categories of social roles.

This explains the complex nature of the challenging sensing phase for TMT that demands their DMC so as to limit their emphasis on threats of novel issues and focus on opportunities. Greater emphasis on threats often leads to maladaptive mind-sets during sensing phase in regards to new business models. It is important however, not to overemphasise the strength of this argument because DMC, which is most challenged in the decision making process during sensing phase, underscore managerial judgement based on two main sources, which stabilise collective sensing as evidenced in chapter five. They are namely TMT reliance on experiential learning through the use of procedures and systemic approach and stable patterns of interaction which addresses the second issue.

Findings in chapter five, however, assert the notion of stability of patterns to handle uncertainty. Stability based on DC literature comes from routine which is all about stability in terms of repetitive patterns over time. This means the reliance on a stable, systemic deliberate approach to sensing phase is one of the essential enablers that sharpens TMT sensing ability as a DMC and not just a one-off or ad hoc activity according (Winter, (2003).

Findings in chapter five reveal that the ability of TMT to stabilise a collective sensing phase in order to make sense of uncertain future opportunity is the insight which highlights the underlying component of DMC during the sensing phase and is addressed by the first issue that explores DMC sources.

Thus, this confirms the recent conceptualisation of TMT as *entrepreneurial managerial* (Teece, 2012, P:1398) that is embedded in DC. In other words, sensing with regard to managerial ability to identify opportunity depends on repetitive patterns of social interaction while they respond to a proposed opportunity.

Notwithstanding, the variation in skills, which are required for different stages of decision making in terms of opportunity identification and opportunity exploitation and development, are acknowledged by many scholars from different disciplines and, therefore, have different explanations according to their area of knowledge (Teece et al., 1997).

In support of the above argument, human capital and social capital are another two attributes of Adner and Helfat's (2003) framework which are used in this study to provide key components of how TMT handles uncertainty during the decision making process through the interaction between their accumulated experience and the use of organisational routines which is discussed next.

6.3   Enablers of DMC

This section addresses the second and third issue based on the notion of pattern stability, which is the main insight in explaining DMC mechanism, to handle uncertain pre-acquisition decision making process. The next two subsections provide a discussion of the two other main contributions with a set of statements. Having the notion of routine represented by the findings asserted the notion of stability of patterns. Routines formed the backdrop of the discussion of literature in chapter two and confirm the findings in the next sub-section about TMT reliance on experiential learning in terms of a certain set of procedures and routines. Additionally, it underlies the findings in the following sub-section regarding the mechanism by which managers can deal with uncertainty to

stabilise sensing relying on an identified set of social patterns of interaction, which is explained by an adjacent theory about human behaviour.

6.3.1 Experiential learning and the notion of routine

The notion of routine has formed a backdrop of the discussions addressed in chapter two, but one that is mentioned within debatable views on its role as a source of DC origin, in light of the cognitive versus routine debate in chapter two. Routine which evolves based on feedback (Zollo and Winter, 2002) is stable patterns of behaviour that features in organisational response to changes in environment. Development of such routines is based on the accumulation of past experience in addition to positive feedback as both provide a kind of learning that is argued to generate DC.

Findings in chapter five are consistent with the discussion of conventional literature in chapter two regarding the role of routine in developing learning through experience that provides a base for DC to arise (Zollo and Winter, 2002). Hence, in reference to the general contribution which is addressed by the first issue above, this section reflects on that by relating findings of chapter five to the notion of executive learning through experience accumulation, which cause stability of behavioural patterns as a central learning process. TMT's use of operating routines which enable DMC to stabilise sensing is supported by empirical evidence.

Findings of this study highlight the insightful role of stability of patterns during the sensing phase on team ability to handle uncertainty of decision making. Experiential learning patterns are the first important mechanism which is found to facilitate TMT endeavour to make sense of uncertain opportunities and arrive at acquisition decisions under uncertain conditions.

One of the benefits of experiential learning, according to Zollo and Winter (2002, P: 339) is that it provides the firm with one of the effective mechanisms which organisations use to develop DC. More importantly, experiential learning ensures continuity and stability of a learned pattern.

Experiential learning (Zollo and Winter, 2002) encompasses human capital, which refers to learned skills that represents intangible assets. According to DC literature, these assets develop through learning especially by learning-by-doing. The precise benefit of experiential learning is that it asserts the role of trial and error, repetition and learning by doing, which leads to the creation of stable patterns as part of effective management.

Experiential learning patterns are based on organisational procedures, routines, repetitive doing that adopts a systematic approach. The TMT team have embarked on many acquisitions in the past. In other words, the repetitive doing of the same process has enabled them to master it as best practice which is consistent as described in chapter (Eisenhardt and Martin, 2000).

Theories about experiential learning explain the role of routine patterns in terms of frequently doing things based on experience and repetition that will result in experiential learning effect as indicated above. The notion of routine emphasises the role of repetition as stimuli for change or adaptation of behaviour (Nelson and Winter, 1982) which can provide partial explanation of TMT reliance on experiential patterns during the sensing phase.

For example, when a preposition is made about a potential opportunity by a member of the team, and even if it is about cognitive processes and patterns, managers will rely on experiential learning to mitigate their sense of uncertainty. So, in spite of the fact that

sensing represents cognitive challenges to TMT, they will still rely on experiential patterns aiming to settle their fears of associated uncertainty.

By the same token, the backlog history of a specific task results in accumulating experience. This is because the case with acquisition repetitive doing, which is referred to as path dependence (Teece et al., 1997) in chapter two, provides indirect support to the above argument, which also confirms findings of this study. That is because it enables managers to acquire knowledge that is locked within a particular experience, develop expertise and contribute substantially to perfect in part their abilities through prior work experience as illustrated in chapter three of the diverse team experience.

Findings in chapter five supports a link between managerial efforts to stabilise the sensing phase using a systematic approach. The systematic approach is exemplified by the regular periodic executive meetings which are scheduled and have registered minutes and outcomes. The main purpose of team periodic meetings is restricted to what is necessary to ensure that the business performance is robustly reviewed and challenged, so that all involved can be confident about their progressing in line with expectations or making revisions to reflect any changes that may affect performance. Nevertheless, acquisitions are discussed in order to ensure that team members are aware of any opportunities that may arise or monitor potential targets. This routine proved to be beneficiary to the team in terms of providing them with a live update of their current resources and capabilities regarding current commitments and potential allocations once a business' need is identified and shared collectively as in the example of the four acquisition episodes. A business need is identified before the potential opportunity is availed to the team which suggests that they collectively develop and share an accurate knowing about the business. Hence, this guides their scouting efforts of potential opportunities that demands their continuous awareness of their internal resources and

capabilities that seem to guide the basic direction of a firm's strategy (Grant, (1991). Hence, the more likely that TMT will utilise outcomes of experiential learning, the higher the likelihood it will make collective sensing process more stable.

The above findings are consistent with DC conventional literature as analysed in chapter two. This stream of literature highlights the importance of experiential learning to the development of DC (Zollo and Winter, 2002). The above example is evidence on the importance of experiential learning beside the cognitive aspect of managerial thinking during decision making. The more the TMT practice sensing of potential opportunities as an accumulated experience resulting from experiential learning within the team, the more sensing phase can be stabilised.

The benefit of using experiential learning to explain TMT endeavour in mitigating uncertainty during the sensing phase resides in the frequent use of codified knowledge as well (Zollo and Winter, (2002). Codified knowledge also seems to facilitate TMT collective patterns of sensing, since TMT relies heavily on their use. Besides the adoption of a systematic approach to the sensing phase as described above, the findings provide evidence on the heavy usage of codified knowledge, for example opportunity spread sheet and opportunity list. However, they are not codified knowledge in the sense of procedures and blueprints which automate performance. They are an example of informative tools which are actively updated in order to help them capture all key players in the market who might become available one day.

Evidence supporting the above argument is provided by the regular use and update of opportunity identification list by the TMT during their periodic meetings. This indicates their heavy reliance on the use of such systems and routines, which facilitate stabilising

their sensing practices. Hence, the more the TMT increasingly relies on codified knowledge, the better they cope with perceived uncertainty of collective sensing.

In addition to that and contrary to Zollo and Winter's (2002) notion of the positive link between task low frequency and effectiveness of knowledge codification in capability development, findings of this study support a positive link between high frequency of sensing task and effective use of codified knowledge to stabilise sensing phase.

This is explained by the regular sensing of potential opportunities as exemplified by the TMT's regular effort in updating the opportunity list during their periodic meetings or whenever potential targets occasionally appear, regardless if they go through the full life cycle of sensing as exemplified by the four acquisition episodes. This suggests a strong link between codified knowledge of a high frequency task and their development of collective sensing capability. Hence, the higher frequency of TMT experience in the act of sensing, the more likely it will be for that codified knowledge to exhibit stronger effectiveness in developing stable collective sensing.

Finally, according to Zollo and Winter (2002) with regards to conventional literature on DC, findings of this study are consistent with the effectiveness of knowledge articulation to capability development, which is in this case collective sensing. TMT social interaction formed by repetitive patterns of behaviour that is evidenced by stable social roles during the sensing phase enables them to express opinions and beliefs through the implicit social system which result in important collective learning. Such learning helped to articulate their implicit knowledge through their collective discussions. Therefore, the articulations of knowledge among TMT will most likely lead to the development of social roles that provide stability of sensing.

Concluding the part of the discussion which reflects on conventional literature of DC, this section has provided supporting evidence on the general contribution of this study which extends our understanding of the micro-foundation of DC to highlight the important role of experiential learning to the development of sensing capability in TMT.

6.3.2 Social patterns of interaction

TMT adopts a systemic approach towards sensing new opportunities. This approach relies heavily on the use of procedures and tools as evidenced by the findings in chapter five and it is consistent with conventional literature drawing on experiential learning as a source of social glue stabilising the collective sensing phase. Nevertheless, it is found that TMT's social interaction during the sensing phase serves as another source for stabilising the same phase.

Supporting evidence of this argument is provided by the constant presence of five social roles across the four acquisition episodes. The remaining part of this chapter therefore provides a discussion of the unique contribution of this study to conventional literature of DC on TMT behaviour during the sensing phase by using the notion of role as a replicated stable pattern of behaviour, which provides a backdrop for the remaining discussion.

An equally significant aspect of the notion of experiential learning to team practices within the context of social interaction is the constant launching of presentation meetings associated with the four acquisition episodes. On the one hand, these meeting corroborate the benefit of routine as a repetitive practice that becomes habitual whenever a potential opportunity is proposed. On the other hand, the presentation meetings encourage team social interaction, which proved to be beneficiary to socialisation of knowledge during the sensing phase by the presence of three categories

of social roles. Hence, the more TMT relies on experiential learning patterns and patterns of social interaction during the presentation meeting, the more likely it is that their effect will increase the stability of collective sensing phase in TMT.

Notwithstanding, team effort as described above does not mean that uncertainty of a strategic issue is entirely in real sense, but discussion of the issue among team members utilising existing knowledge base embedded in individuals through social interaction seems to mitigate the impact of uncertainty. The particular contribution of this study lies in the identification of particular social patterns of interaction which result in having a stabilising effect that leads to form a collective sensing process in TMT. This contribution is related to the third issue which addresses the research question about the role of social patterns in stabilising sensing phase in TMT.

Findings in chapter five under section 5.2 provides evidence on the stabilising effect of TMT social interaction as a result of team socialisation of their diverse knowledge and expertise that seems to settle associated uncertainty of strategic decision making during sensing phase. Social interaction among decision makers leads the team to develop adequate understanding of a particular issue that builds adequate consensus. Collective understanding is achieved through knowledge articulation which features sensing process in TMT. Collective sensing is supposed to mitigate uncertainty during the strategic decision making process. Hence, during the sensing phase members of the TMT may feel that they have made adequate sense of an opportunity by sharing collectively what they know enabling them to proceed with a decision. Hence, this is consistent with the Transactive Memory System (TMS) (Argote and Ren, 2012) which explains group dynamics. Although TMS is about the coordination of individual cognition represented by their specialised knowledge that reside in teams, it also has the potential to shed light on the coordination of knowledge and learning that is structured

in team routinized patterns of behaviour (Kogut and Zander, 1992, Nelson and Winter, 1982).

At the same time, team routinized behaviour within the context of these findings cannot be explained adequately by relying on TMS alone in relation to the humanised aspect of DMC as a social phenomenon. Although managerial studies exploring manager's roles in decision making have used different angles to understand that role, the use of role theory (Biddle and Thomas, 1966) has been introduced to the field of managerial studies to understand managerial agency as mentioned in chapter two by many scholars, like Floyd and Lane (2000) and Mantere (2008). However, this study adopts the role theory as well to explain the same phenomena, but it is limited to the executive level, instead of the present focus on conflicted roles between middle and top managers or business process and strategy activities, as described in chapter 2 under section 2.2.2.

The aim of this study is to explicate how social patterns of interaction lead to collective sensing phase in TMT. In other words, it is about understanding the interaction between social roles among TMT and strategic decision making using DC lenses. Therefore, a brief introduction to role theory will precede the discussion of findings in order to show the link between DC and the effective presence of social roles in stabilising collective sensing as another source of DMC.

The idea of role as described in chapter two is not new in management studies. It is an *intellectual tool* that is informative when used to understand features of social life (Banton, 1965, P: 3). Given that this study is set to understand the role of TMT's social interaction during sensing phase of acquisition, decision making encompasses aspects of social life. Role theory is an old concept which explains patterns of human characteristic behaviour (Biddle, 1986). Action representing human behaviour reflects role

performance or performance per se (Biddle and Thomas, 1966, P: 26). The simultaneous use of terminologies, such as "role behaviour" and "behaviour pattern" or "role enactment", indicates the same meaning. Action or role is used to analyse various forms of social systems.

A role maybe defined as a *"set of norms and expectations applied to the incumbent of a particular position"* (Banton, 1965, P: 29). Expectations as norms, beliefs or preferences are perceived as major generators of roles. They are learned through experience and people are aware of the expectations that they hold (Biddle and Thomas, 1966). It seems that the theoretic approach to role asserts the nature of people as social actors who learn behaviour that is appropriate to the positions they occupy within an organisation (ibid). So, people in organisations are expected to be defined by the organisational role they play.

Expectations for the purpose of this study are found through qualitative interviews with individuals who report their own expectations and those of others based on their ability to anticipate certain behaviour within a given context. Hence, expectations by informants are a significant element which revealed an important aspect of TMT social interaction that explains how they achieve a collective sensing phase. The presence of expectations between interacting individuals contributes to stabilise their interaction through emergent relationships as given in chapter five. Hence, expectations help to understand emergent social relationships that are likely to arise during an encounter or interaction between individuals (Goffman, 1990). Thus, the notion of expectations forms the backdrop of the emergent implicit role system.

This suggest the development of an implicit structure that is not necessarily restricted to the overall organisation, but as theoretically suggested, it results from specific learning

of a specific task and the familiarity between interacting individuals. The more individuals interact while they work, the more they learn collectively about themselves and their social context in order to accomplish the task. TMT social interaction in this study provides supporting evidence which asserts the importance of team TMS even at the level of executives within the context of sensing phase (Moreland and Argote, 2003).

Theoretically, the concept of role is a deducible concept from two more comprehensive concepts that underlay the presence of role (Popitz, 1972). The first one is related to the presence of certain regularities of action, which become binding, and facilitates predictability of behaviour. In this case, behaviour is formed as a characteristic behaviour. The second one is related to the clustering of a characteristic behaviour as made of a total sequence of social behaviour peculiarities and associates it with a certain class of individuals, such as TMT for instance in this study. Thus, such concepts helped in deducing behavioural peculiarities that are associated with TMT to identify their patterns of interaction which features sensing phase.

Interestingly, this allows to link the concept of characteristic behaviour (Popitz, 1972) during sensing phase with the concept of experiential learning of Zollo and Winter (2002). This is because people learn how to do what they do, in this case sensing, by repetitive doing which involves clusters of characteristic behaviour that are associated with TMT and seems to contribute to stabilising TMT behaviour. Hence, this helps to standardise behaviours at broader categories that capture TMT social behavioural peculiarities based on shared expectations during the sensing phase.

Supporting evidence of that is illustrated in table 10 in chapter five which represents three categories of social roles during sensing phase in TMT based on certain

regularities of action and expectations as experienced by the members of TMT leading to internalisation of social role during sensing.

The combination of the above theoretic approaches to role emphasises the nature of people as social actors who learn behaviours appropriate to the positions they occupy in certain societal context (Solomon et al., 1985). Similar to the notion of role, the use of expectations in understanding managerial agency is not new, but is limited to explore managerial agency at the level of middle management (Mantere, 2008). Thus, this provides additional contribution to the use of expectations in managerial studies applying a combined concept of role and expectation to understand DMC at TMT.

Social roles by definition are context specific, which helps in differentiating them from organisational roles, as they dissolve once the obligation dissolves. Each social role reflects certain behaviour during the sensing phase only. Findings of the social roles in this study agree with the fact that social roles arise within a particular role structure as additional models of expected behaviour. They are assumed collective by nature (Popitz, 1972). Collectiveness of social roles is explained and demonstrated by assigning similar demands on different occupants of similar positions. Hence, expected demands of social roles by team members are learned in the context of the high frequency of doing a sensing task regardless of seizing a particular opportunity. In other words, social roles were present across the four acquisition episodes as learned behaviour, reflecting stable patterns which stabilise collective sensing phase.

However, the concept of social role on its own does not explain how an individual is related to his role (Popitz, 1972, P: 13). Again, through the conventional literature on the micro foundation of DC combining the notion of experiential learning and TMS can provide a potential explanation of the mechanism that leads TMT members to learn

those social roles and their desires to perform them in every sensing episode because it allows them to reason and to share their accumulated experience and knowledge base. Thus, this helps the team to optimise their seemingly routinized choice, which demands forward thinking relying on the adoption of repetitive patterns of social interaction in TMT to draw on their accumulated experience rather than the reliance on the interaction between individual cognition and action alone.

Social roles enable members of the TMT to combine roles during sensing phase through their socialisation aiming to harmonise their specialised knowledge and diverse experiences by process of interaction. In other words, the willingness to perform a role is explained by the process of socialisation *"in which we learn to desire to do what we should and finally to do without noticing it …..(Internalisation of social roles)"*(Popitz, 1972). Therefore, social roles enable group cognition and sensing.

On the one hand, the notion of social roles relating to TMT interaction during the sensing phase is important for revealing another substantial aspect of decision making, which helps to conceptualise TMT's effort during the collective sensing phase, as a source of DMC by enabling group cognition and sensing. On the other hand, TMS asserts the traditional significance of who knows what in a group which explains how specialised knowledge and expertise can facilitate the development of collective sensing when shared between individuals in groups through the interaction of social roles.

Additionally, patterns of social interaction that develop an implicit role system, as described in chapter five under section 5.4., where roles identify activities and responsibilities that conform to the notion of know how residing within people (Nonaka, 1994) that is shared when articulated as knowledge (Zollo and Winter, 2002). Patterns of social interaction reveal social processes that are taken by roles within that implicit

role system and lead to a socially constructed acquisition decision. Accordingly, this is consistent with Kogut and Zander's (1992) notion of socially constructed knowledge that results from people's interaction. This interaction of stable patterns of behaviour provide the media along with articulate tacit knowledge (Grant, 1996b) that accumulated to form expertise which allows individuals to do things more efficiently, as advocated by Kogut and Zander (1992).

The benefit of using TMS, which resides in structured group processes and teams (Moreland and Argote, 2003) in combination with the notion of social roles, contributes to asserting the role of experiential learning in balancing the limitations of individual cognition and attribute DMC to TMT's ability to stabilise collective sensing process. This occurs by relying on social patterns of interaction instead of forward thinking logic that is impeded by uncertainty (Gavetti and Levinthal, 2000). This is consistent with Argote and Ren's (2012) work focusing on the sharing of individual cognitions through team interaction. It was also supported by the findings of this study through the collective encoding, storing and retrieving of information and knowledge from different domains. Based on the findings in chapter five, social interaction through activities of proposing, challenging and arbitrating interactively across the four acquisition episodes demonstrates processing activities of information and knowledge within the socially established role system. They ensure a certain due diligence of processed information and knowledge during their socialisation which benefits collective sensing as a social feature of acquisition decision making in TMT.

The above combination of TMS and social roles asserts the role of social processes in coordinating the different activities and responsibilities within the emergence of an implicit role system that contributes to the understanding of how team sharing implicit knowledge can simplify choice making under uncertainty as a developed fixed response

to a defined stimuli, which draws on the notion of organisational routine (March and Simon, 1993). This reflects TMT's creative ability in stabilising the sensing phase by introducing an implicit role system through their social interaction, as illustrated in chapter five, to mitigate the effect of their perceived uncertainty of proposed acquisition that becomes a frequent identified stimuli. Hence, the more the TMT relies on social patterns of behaviour that form an implicit role system during the sensing phase, the more likely it is that they will have an effective collective sensing process.

Contrary to Grant's (1996a, P: 379) notion of integration of knowledge among specialised individuals without the need to communicate their knowledge relying on the notion of routine, findings of this study asserts the role of knowledge articulation (Zollo and Winter, 2002) within the implicit role system during team socialisation among specialised individuals and interaction during sensing phase, according to empirical evidence of emergent themes of three categories of social roles to integrate their specialised knowledge. Communication of specialised knowledge is fundamental for linking stimulus and response; in this case proposed uncertain acquisitions to simple social patterns of behaviour contrary to Grant's assertion of highly complex and variable patterns. Hence the emphasis here is on the need to communicate specialised knowledge in TMT to achieve a seemingly automatic behaviour with regard to proposed acquisitions among TMT. In this case, collective sensing is consistent with Eisenhardt and Martin's (2000) definition of DC as adaptable and simple. Hence, the more the TMT communicate their specialised knowledge through social interaction, the more likely it is that this will result in collective sensing phase as a seemingly automatic behaviour.

The above discussion, so far, has focused on the effect of social roles as an aggregate implicit system. However, existing social roles within the implicit role system according

to findings in chapter five are categorised across two types of social roles. The effect of each type on sensing phase is finally discussed as an independent unit. The first type is configured as organisational roles. This type of social role asserts the value of education, specialisation, specific work experience, which attends to the uncertain feature of decision making. This is explicitly expressed in this case by the behaviour of the controller for example.

The typical initial rejection by the controller of proposed acquisitions across the four acquisition episodes, for example, asserts the uncertain nature of the acquisition decision making process. The fact that the uncertainty of the future negatively influences managerial perception of potential opportunities leads them to interpret it as a threat. This seems to shape assumptions of organisational role based on the evidenced given. The role of a controller is emphasising the specialised knowledge peculiar to creative sensing.

This can be explained by the narrow aspect of the foundation of the organisational role which represents knowledge based on education and limited specific expertise that enables the group to access specialised knowledge of individuals within a diverse team. The value of organisational role, however, during TMT interaction for acquisition sensing is consistent with team TMS which focuses on sharing individual cognition where the value resides in who knows what (Argote and Ren, 2012).

The supporting evidence on the above argument on organisational role during sensing phase providing TMT with a specific knowledge in a specific domain is illustrated by the role of controller who covers the financial issues. Therefore, the organisational role takes responsibility for answering questions in his domain.

Having TMS explaining the value of individual knowledge within TMT, draws on the notion of combinative capabilities as mentioned in chapter two as a dynamic capability of the firm in terms of knowledge efficiency and breadth (Kogut and Zander, 1992). Accordingly, efficiency of identified knowledge in the case of organisational role is displayed by the utilisation of specialist knowledge that is held by individual organisational members, whereas knowledge scope of a capability is the breadth of specialised knowledge; in this case the organisational role, as shared through the implicit social role system within the team drawing on collective sensing.

Hence, although the organisational role on its own reflects the efficiency of specialised knowledge within TMT, it is a key role within the implicit role system in reflecting the breadth of team knowledge that is necessary for developing collective TMT sensing.

The second type of social roles is configured as independent role. Contrary to the previous type, the independent role is not influenced by any particular educational background or specialisation. Supportive evidence on this point from the data is provided by the role of the proposer.

The role of the proposer is performed by three different members of the team across the four acquisition episodes. The proposer's role is to identify potential acquisition opportunities and to bring it to the table. The behaviour of the proposer is consistent with the entrepreneurial nature of the sensing phase. This role attends to the entrepreneurial nature of opportunity identification which depends on scouting opportunities as they appear as a managerial action (Teece, 2007).

The combined benefit of social roles and TMS are grounded in the fact that social roles enable the combination of multiple roles which seem to reduce the rigidities of TMS that emphasise the specialised knowledge of individuals during the sensing phase of a

new acquisition. Accordingly, this is consistent with Lewis et al., (2005) who found that TMS facilitates group adaptation to a new task. This is reflected by the presence of additional role to organisational role labelled as the independent role. This role facilitates group adaptation to a new proposed acquisition as a new task although the whole interaction process is routinized through the implicit role system. Put differently, independent role provides the team with the opportunity to learn about their own behaviour and those of others in response to repetitive proposing activity within the team across the four acquisition episodes. This consists of the effect of learning to propose behaviour which leads other members to learn adaptive behaviour to proposing act as a collective abstract understanding of the task domain, which is the proposed acquisition. Social roles help TMT to apply their learned behaviour during the sensing phase despite the rigid function of specialised knowledge.

Hence, the more the independent role engages in scouting opportunities the more the incumbent learns about his own role and about the environment within which he operates. Consequently the incumbent of the independent role develops autonomously in the act of proposing and is more likely to make a proposal relating to new opportunities which will facilitates the initiation of collective sensing by TMT.

Finally, a third type of social roles which is particular to sensing phase is configured as a hybrid role. This role combines features from the two previous roles. On the one hand, constituents' factors of this role include some degree of the norms of the organisational role of individuals who populate it. For example, the two social roles which are allocated under this category are the arbitrator and the facilitator. The arbitrator's role played by the chief executive officer (CEO) and the facilitator played by the group business development director (GBDD).

The organisational role of the CEO involves arbitrating the final decision making during sensing phase. This aspect of the role is easy to be anticipated by the rest of the team members because it is in direct relation to his job. Similarly, the organisational role of the GBDD involves strategic development of the entire business which entails breadth and depth of knowledge of the entire business in its totality. This aspect of the role is also predictable because it is shaped by job duties.

On the other hand, the behaviour of the above two social roles during sensing phase was observed, interestingly, not to be confined to the organisational role only. It is differentiated from organisational role during the interaction as enactments of a broader set of knowledge, variously accumulated experiences, and involvement with business at multiple levels from past acquisitions, as described in chapter three under team composition.

Supporting evidence on the differentiated behaviour of the two roles is illustrated in chapter five under the subsections of arbitrator and facilitator. It is mainly about the adoption of a neutral position by the arbitrator during most of the interaction. The arbitrator typically allows the members to engage and express their ideas fully and comprehensively as illustrated in the intense interaction between the proposer and the controller before he intervenes.

Such interactions reflect the negative impact of uncertainty versus the irrational guessing of potential gains. The role of a facilitator adds flesh to the proposed opportunity by practicing imaginative and creative thinking of entrepreneurial sensing. Furthermore, the role of the arbitrator will help diffuse the on-going tension by balancing the two extreme enactments of challenging and proposing. Hence, the more

executives at corporate level play hybrid roles, the more likely it is that such acts will promote collective sensing in TMT.

Therefore, it is important for leadership in TMT to combine roles to encourage team interaction, which allows members to discuss opportunities and express ideas.

It seems clear from the above discussion that the importance of social roles to the collective sensing phase benefits from the concept of team transactive memory systems. It provides foundation for TMT collective sensing during pre-acquisition decision making a process to create opportunities by counterbalancing cognitive limitations of individuals during the decision making process asserting a role for social space, as described in chapter two. In turn this asserts the importance of social interaction in TMT during sensing phase. Social interaction is a mechanism which TMT uses to handle lack of certainty when making judgement on uncertain opportunities.

Therefore, the implicit social role system that facilitates interaction among TMT helps to set a socially constructed foundation releasing the creative aspect of sensing phase by counterweighing the cognitive barrier. Creativity within the context of the findings of this study contributes to Teece's (2012, P: 1398) notion of entrepreneurial management function that is embedded in DC and can be explained as *"the character of the result of a creative process which marks the results as different in kind or type from any form available to the process before it began"* (Hausman, 1964 cited in Parkhurst, 1999). Hence, the outcome of the acquisition decision as a result of the interaction of patterns of social roles in TMT during sensing phase reflects team ability to adapt their cognitive limitation to dealing with uncertainty by collective social act that enables them to overcome the bounded rationality (Simon, 1991). Accordingly, collective sensing by social role system is the creative process which marks the socially constructed result.

Such result is differentiated by reducing the perceived uncertainty of proposed acquisitions that are processed within an implicit role system of available knowledge and expertise.

To conclude, managerial interaction at executive level is an important feature of decision making. It can be argued that managerial interaction sharpens the preferences of the TMT during their executive discussions and brainstorming of complex topics as a mechanism of making choice (Eisenhardt et al., 1997). Autonomous managers, therefore, matter in influencing the performance of the firm.

The benefit of TMT interaction during the sensing phase is illustrated in their ability to facilitate learning, challenge the status quo and provide the integration of existing knowledge and expertise at team levels. As evidenced in this study managerial interaction manifests as a mechanism to handle uncertainty regardless of subunits' rejections for example due to immediate linkage with existing resource commitment (O'Reilly Iii and Tushman, 2008).

In contrast, lack of interaction among managers widens the gap between them, which block their expression of ideas and opinions for fear of antagonising or offending others (Eisenhardt et al., 1997). Therefore, TMT's social interaction during sensing phase is recommended by the adoption of distinctive social roles which capitalise on team heterogeneity in terms of experience, gender, age and expertise.

Social roles having the above three role categories highlight the importance of team diversity and heterogeneity, which is important for the configuration of effective TMT when involved in the sensing phase. Hence, the more diverse the TMT, the more likely it is that this will result in the adoption of different types of social roles that facilitate stability of collective sensing phase.

Chapter seven: Conclusion

This chapter presents conclusions on the research aim and research question. This research aims at theory building about DMC which is a constituent part of DC micro foundation. Therefore, this research is taken to explore the role of TMT during sensing phase of potential acquisition opportunities by asking the following question:

How do patterns of social interactions support dynamic managerial capabilities of top management teams?

The chapter concludes the thesis highlighting contribution of study findings to knowledge and practice. The structure of the entire chapter is composed of four main sections starting with a brief summary of research findings in view of current research problem. The chapter provides then the second section which provides a detailed discussion of the contribution of findings as implication to theory and practice in three subsections. It is to be noted that embedded within the subsections are the implications emanating from the concept of managerial reflexivity. Managerial reflexivity as a mediator between functional roles and social roles (agency) was an unexpected findings of this research and thus its various implications are analysed in additions to the other findings.

The first subsection provides theoretical contribution about the implications of findings to strategic management. The second subsection provides theoretical contribution about the implication of findings to substantive theory in the wider context of management discipline within three main areas namely management learning, strategy and knowledge management (Easterby-Smith et al., 2012). This section concludes with a third subsection summarising methodological contribution as a result of inherent reflexivity in the methodological approach to undertake this study which is both innovative and novel. The third section provides a summary of the implication of

findings for managerial practices. The chapter then concludes with a fourth final section on direction and suggestions for future research.

7.1   Summary of research findings

This study is set to extend our understanding of DMC due to incompleteness of the micro foundation of DC. Accordingly, it explores the role of TMT during sensing phase as a phenomenon to deepen our understanding of DMC which suffers from a lack of research beside our knowledge that is limited to the cognition tradition from individual perspective and not collective. Hence, the following research question is developed to address this gap: "How do patterns of social interactions support dynamic managerial capabilities of top management teams?"

Sensing phase from a DC prospect is an interesting construct which allows the study of collective TMT actions because it represents the most challenging phase for managerial cognition and therefore, judgement. Subsequently, the vulnerability of the firm is emphasised if sensing and learning functions are left to cognitive traits of individuals only (Teece et al., 1997, P: 1323).

Therefore, acquisition strategy of other companies set the context for this study. Pre-acquisition processes namely sensing phase of potential opportunities is an exemplary context to explore collective TMT interaction to interpret potential opportunities of acquisition since it is the most cognitively challenging phase for individual managerial judgement. Additionally, the selection of sensing phase is due to existing similarities between acquisition identification and DC pattern of sensing phase as illustrated in figure 5, chapter four which provides a visual representation of a diverse literature underlying this study.

As we have seen in figure 8 from chapter five which illustrates the theoretical framework for DMC during sensing phase based on emergent data from interviews with six members of TMT in a UK based company, the TMT relies on both experiential learning and social patterns of interactions to introduce a stabilising effect of inherently uncertain sensing phase of acquisition making process. This helps the team to make sense of potential opportunities as a collective endeavour rather than relying on inadequate cognitive efforts of individuals.

Beside team reliance on experiential learning from existing routine organisation wide such as systemic approach and procedures e.g. opportunity identification list, periodic executive meetings and presentation meeting where they discusses proposed opportunities, the team also relies on populating social patterns of interaction to help stabilising uncertain sensing phase. Those patterns are typified under three main categories of social roles namely the independent role, organisational role and hybrid role which, through their relational interaction composes an implicit subtle role system with varying functions. This system function based on additional enacted expectations that were consistent across four acquisition episodes governs their interaction during their presentation meeting when they engage in executive conversations to interpret proposed opportunities.

The findings above have a number of theoretical and practical implications in view of the existing inadequacy of the cognitive literature to understand sources of DMC. This has resulted in directing attention to explore other attributes e.g. human and social capital to complement our understanding of different sources of DMC. Subsequently, the following new implications are further discussed in the next few sections. Notwithstanding the above findings also reveal that the degrees of separation between the functional roles and the social roles were a function of the different reflexive modes

of the incumbents performing the respective roles. Consequently this important revelation is given due consideration in discussing the implication of the findings as appropriate.

7.2 Implication of findings for theory

The next two subsections will provide a discussion of thesis contribution to our understanding of existing knowledge. The first sub section describes in details the implication of findings on strategic management by contributing to the micro foundation of DC. The theoretical development as emerged from the data is about enablers of DMC which are social patterns of interaction and experiential learning. The mix of the two factors facilitates collective sensing by TMT of inherently uncertain acquisition opportunities.

This thesis has also contributed to the wider context of management discipline by extending our understanding of substantive theories in management learning, strategy, and knowledge management using a novel and innovative methodological approach. The next two sub sections will address the number of implications in more details.

7.2.1 Implication for strategic management

The debate on sources of DMC (Gavetti, 2005, Nelson and Winter, 1982, Zollo and Winter, 2002) is part of a longer debate on the micro foundations of DC (Teece, 2007) and eventually, on the role of managerial agency in developing DC of the firm. The exploration of the conspicuous role of managers is anchored in cognitive tradition as described in chapter two. Indeed, exploring the role of cognition as a source of DMC is important. However, it is insufficient on its own to fully understand other aspects of the role of TMT action and interaction. Therefore, such shortage of our understanding

contributed to the incompleteness of the micro foundation of DC. Therefore, this study was set to explore additional sources of DMC as contribution knowledge.

The theoretical contribution of this qualitative study took the form of developing new theory based on findings contributing to open the "black box" of DMC. The contribution of the new theory can be summarised by the identification of three patterns of social interaction as stable patterns of behaviour in TMT during sensing phase to be a source of DMC which enable the team to interpret potential opportunities.

The first category is an independent role. This role involves a role that is purely learned as constructed by team members based on enacted expectations of proposing act whenever an opportunity is scouted. This role is named a proposer. It is a dynamic role which is populated by a number of individuals depending on who will engage in proposing potential opportunities.

The second category is organisational role. This role involves a role that is consistent with designated position as a given norm rather than involving any new enactment of expectations. In this study, two roles named controller and consultant are named organisational role. The controller functions contrary to the entrepreneurial behaviour of proposing opportunities by the independent role. Similarly, members of the team who are not directly involved in proposed opportunity will populate the role of consultant and their functions will range from support, neutral to oppose.

Finally the third category is hybrid role. This category is a mix of the previous categories which are independent and organisational role. The role is constructed as learned due to enacted expectations. However, the function of the role also involve aspects of its given norms. They are named arbitrator and facilitator.

The identification of the above three categories of social patterns of interaction as emerged from data helps to conceptualise the role of TMT during sensing phase as a socially constructed concept. The construction of managerial interaction based on the presence of an implicit role system reflects the DMC in the relational aspect of TMT having the idiosyncratic nature of DC. Hence, social patterns of interaction at the level of TMT provides additional source of DMC. This extends our current understanding from individual cognition at the level of TMT to more humanly and socially collective sensing phase of acquisition decision making.

TMT repetitive patterns of social interaction provide a sense of stability to collective sensing in the course of managerial forward thinking logic which is about making judgement on uncertain future potential opportunities. Hence this emphasise the importance of managerial actions in decision making by TMT as social patterns of interaction according to emerged empirical evidence from the data beside our knowledge about rational decision making and its inherently bounded rationality as discussed below.

Studies in the cognitive tradition identify the role of managerial cognition in future decision making to be based on managerial past believes which shapes their present and therefore, their interpretation of future opportunities (Gavetti and Levinthal, 2000). Additionally, a revision of the relevant theories to DMC e.g. RBV and the latent nature of resources, DC and experiential learning aimed at identifying a gap in the literature and facilitate the formation of a broad research question as a result of highlighting the lack of knowledge in this stream of literature about the influence of other sources than cognition such as social interaction during an important DC e.g. sensing phase (Teece, 2007) and the role of managerial actions and interactions as a potential source of DMC.

There is a scarcity in the literature to identify a particular theory in strategic management which explicitly prescribe or describe DMC (Adner and Helfat, 2003, Martin, 2010, Teece, 2007) as described in chapter two. This study provides a new insight to the future decision making at TMT assigning a role for social patterns of interaction as another source for managerial judgement when interpreting future opportunities.

7.2.1.1 Managerial agency and role theory

This contribution has emerged as a result of adopting innovative approach to explore managerial different mechanism to make uncertain decisions from a naturalistic perspective. Indeed, this study set out to explore the different social mechanisms which managerial agency uses to explore the micro foundation of DC. Managerial agency and indeed social agency are still not well understood and remained under-theorised in management as well as sociology literature.

Giddens (Giddens, 1984) seems to have offered an emancipatory movement to put agency in the spotlight. However, his commitment to structural dualism seems to have privileged a view of fully mediated agency. Although an influential piece of work that duality of structure does little to explain the habitus of managers in bringing about organisational change. To understand the role of managerial agency is therefore important to treat those actors and their social positions as individual units of analysis. Archer is the forerunner protagonist of the analytical dualism concept and has made it her lifelong ambition to hold agency and structure as distinct units of analysis in her numerous writings.

The role theory offers a potentially alternative instrument for analytical dualism. The rest of this section is dedicated to explain the contribution of role theory in explaining

managerial reflexivity in decision making. Decision making is an emergent social phenomenon that seems to exist between the universe of subjectivity and objectivity. Key insight from this study locates decision making as a struggle between two opposing behavioural pattern, continuity and entrepreneurship. Whilst the behaviour associated with continuity is about maintaining the status quo and stability, entrepreneurship is about vision of change and perhaps transformation. Left on their own, these two positions are destined to move further apart. This research suggests that meaning making and indeed decision making lays somewhere in between those two positions. Therefore, there are social mechanisms that seem to mediate between stability and instability to bring about clarity. These positions have been identified as three categories of social roles namely independent, hybrid and organisational role.

Archer reminds us of four methods of reflexivity and proposes agential potential on the basis of these (Archer, 2003). Communicative reflexives tend to act to reproduce their prior social conditions and are less likely to act outside constrains of their social position. A close inspection of the behaviour of the controller reflects the trait of communicative reflexives. As a financial officer the controller has been conditioned by his education background, professional association and past working experience that has shaped his beliefs, values and ways of acting in the world. The nature of the CFO is one of questioning, controlling and scepticism as observed in his behaviour.

On the other hand, autonomous reflexives are independent in their inner conversations in reflecting about their position in which they have been involuntary placed. Autonomous reflexives strive to use the enablement of their social positions to activate their own personal projects whilst devising strategies to manage constrains associated with their social context. In essence, autonomous reflexives exhibit entrepreneurial behaviour where change rather than stability is the order of the day. The data suggest

that proposer display traits of autonomous reflexives. According to Archer meta and fractured reflexives are located between those two positions.

The findings of this study have provided a number of useful insights from the perspective of agential reflexivity in strategic management literature. The stability of uncertainty of decision making is emergent and is located at the intersection of the social interaction between the different modes of reflexivity. Thus, decision making of uncertain opportunities involves resolving the tension between the communicative and autonomous reflexive modes. This tension is resolved by the mediating effect of the other modes of reflexivity more or less autonomous. This contributes to explaining the micro foundation of DC in term of the reflexive postures of agents.

In conclusion of this section, emergent findings from the qualitative data extends our understanding about sources of DMC to include the relational aspect of team collectively as grounded in their actions in addition to our existing knowledge about their rational decision making process. In the next section, implication of such findings on the wider context of management discipline is further discussed.

7.2.2 Implication for management discipline

The findings of this research add to the emancipatory movement towards opening up the "black box of agency" (Delbridge and Edwards, 2013) in organisational analysis. Recent literature has started to scratch the surface of the long standing paradox of embedded agency however in a broader institutional context e.g. Delbridge and Edwards (2013) and Suddaby et al., (2010) from the perspective of organisational logics. This work focuses on agency within a specific organisational context, that is, the TMT and introduces the role theory as a theoretical lens that isolates agency from its functional and social conditioning. As such role theory provides an alternative

framework through which social actions can be assessed consistent with analytical dualism. On this basis this research reasserts the importance of the interplay between the actors and their social context in understanding organisational phenomena in particular related to organisational continuity or transformation. At a more fine-grained level the findings of this research also add to understanding in areas of management learning and knowledge management. The sections that follow take a closer look at these implications.

7.2.2.1 Implication for management learning

Existing debate in organisational learning as an equivalent to cognition development (Argyris, 1977) or behaviour development (Cyert and March, 1992) represents a dichotomy in the field of management views on organisational learning which extends to management learning.

Findings of this study provide empirical evidence supporting the notion of behavioural development as an equivalent to managerial action. Managerial action refers to the new responses or actions by managers that are based on their interpretation of change in their environment (Daft and Weick, 1984). The findings reinforce the role of TMT actions and interaction formulating an implicit role system that is featured by the emergence of three patterns of social interaction which are categorised under three social roles during sensing. Hence, sensing potential opportunity is constructed as members of the team learnt patterns of interaction based on enacted expectations lead to developing an implicit role system. This system will provide additional functions that emerge from relational, argumentative social interaction of collective sensing. This leads the team to construct collective interpretation of acquisition opportunity instead of relying on predetermined assumptions as in the head of individual minds according to the cognition norm.

Behavioural outcomes of managers interaction are embedded in insights, heuristics and collective consciousness of TMT which combined the higher and the lower levels of management learning as grounded in managerial actions (Fiol and Lyles, 1985). This can be explained by the presence of implicit role system that is composed of three social roles which reflects the lower level of learning by doing the mechanism which help the team to stabilise inherently uncertain sensing phase. The skilful practice of social patterns of interaction among team members once learned as a collective property of the team to interpret proposed potential opportunity leads to develop new mission such as the construction of new acquisition decision which reflects a higher level of learning.

Team learning as grounded in managerial actions in this case seems to be reflected from the repeated doing of high frequency sensing acquisition opportunity and its associated practices of enacting social roles as a simple rule of thumb. This accentuates the significant role of sharing experiences and knowledge through the interaction of social roles based on enacted expectations that are devoid of organisational functions. This leads to develop TMT learning by engaging in practice through their interaction.

Furthermore, the social interaction among TMT extends the notion of action learning that focuses on naturalistic form which is context dependent and experientially based which is an inherent feature of dynamic capability as well (Clarke et al., 2006). The social aspect of TMT interaction during sensing phase and therefore, team learning through this process is explained by the population of different social roles which explains TMT engagement in naturalistic decision making of acquisitions. Hence, the team experiences their learning through their active interaction via the emergent implicit role system which socialise individual's tacit knowledge and provide them with simple rules to attach meanings to proposed opportunities.

Additionally, the social aspect of management learning (Clarke et al., 2006) is emphasised by the collective nature of sensing phase which is grounded in team actions and interaction. Thus, team learning as a social phenomenon has the potential to develop into a team capability aiming to interpret uncertain proposed opportunities. Such capability becomes a collective property of the team which helps TMT to overcome the individual bounded rationality through their reliance on their learned behaviour which constitutes the implicit role system.

Team dynamics during the sensing phase is based on the interaction of social roles that are governed by expectations according to role theory (Biddle and Thomas, 1966). This can extend our understanding of management learning through managerial action using role theory from social psychology. In this sense enacted expectation constrains action. It can be argued that due to the identified different social roles, individuals enact different additional expectations and act to regenerate new expected expectations in the form of social roles. Through team enactment of newly emergent social roles, the actors are shielded from the effects of emotional reaction normally associated with meaning making and interpretation. This creates a safe psychological environment where the actors genuinely express their views and opinions relying on their individual skills, expertise and educational background which all helps to accumulate knowledge at the individual level. Thus collective understanding is enabled as individual enacts expectations and act in line with newly formed expectations, which in turn facilitates learning through doing. As individuals populate different roles they master new skills of interactions and become more experts in acting different roles as much as the situation needs. As a result, TMT becomes more skilful in developing a more sophisticated heuristics for sensing phase.

Management learning in this case is grounded in managerial behaviour and actions (Daft and Weick, 1984{Fiol, 1985 #171, Starbuck, 1983)}. Thus, sensing can be viewed as a collective social construction where learning during sensing is the process by which individual knowledge is gained through collective interaction that helps managers to assess viable strategies such as constructing acquisition decisions.

The enactment of different expectations which lead to populate different social roles during the sensing phase enables managers to develop certain actions and interaction of idiosyncratic patterns among team members during sensing phase. Team actions in this case do not necessarily entail a change in their cognitive schemas about their world to identify changes in their environment and interpret acquisition opportunities (Fiol and Lyles, 1985). Alternatively, team construction of acquisition decisions is grounded in managerial learned actions and interactions as a repetitive process.

A further insight relates to the situated reflexive learning of managers. The findings suggest that reflexive learning is essential in constructing the "autonomous managers". Autonomous managers display entrepreneurial traits essential for adaptive behaviour albeit through social interaction as a mediation. Furthermore managerial learning is also associated with the "individual projects" of managers. Autonomous managers learning trajectory tend to be unconstrained by their immediate context whereas less autonomous managers tend to view learning as a reinforcement of current knowledge base. Lessons drawn from this research thus suggest that organisations, especially those operating in highly dynamic conditions need to attend to the specific learning requirements of managers. Understanding the propensity of individuals to adopt different reflexive postures and to respond in providing a mutually supportive climate would be a good starting point alongside increased   team decision making for strategic issues.

7.2.2.2 Implication for strategy field

This study also contributes to the field of strategy as emergent practice. A core insight is that TMT unique rules of thumb which are simple rules of populating different social roles guide their action and interaction during sensing phase and can reduce the cognitive biases and bounded rationality of individuals (Hodgkinson and Healey, 2011) normally associating uncertain acquisition decisions.

Capturing acquisition opportunity in this sense emerges as a result of TMT collective endeavour instead of relying on an approach which is grounded in forceful information processing through high level cognitive processes that features deliberate strategy making (Mintzberg, 1978). This contributes to the mainstream of strategy as practice using role theory which emphasises the emergent nature of knowledge in action to strategize through the interaction of people (Mintzberg, 1971). Therefore, strategizing can be an act of social processes rather than the pure traditional rationality.

It also extends the routine account in strategy literature (Feldman, 2000). This stream of literature is extended by arguing that TMT reliance on systemic approaches and routinized processes normally used to develop acquisition strategy could be more effective when combined with developed heuristics and rule of thumb that are grounded in managerial actual interaction and emerges via the implicit role system during sensing phase. In other words, routines themselves are not static because of the influence of managerial agency which are constantly shaping and reshaping them.

Based on that, acquisition strategy emerges as a contextualised construction within a naturalistic setting of team interaction. This leads to an important insight regarding routine processes and systemic approaches in developing strategies as they become humanised during team interaction. Such interaction is led by team members populating different social roles.

Based on that, the combination of routine and developed actions which translate managerial patterns of interaction assists the TMT when sensing forward opportunities during the decision making of acquisition strategy. This study provides the empirical evidence on the effectiveness of developed actions as they got learned by managers as social patterns of interaction when decision making suffers from limited information, time and processing capacity (Bingham and Eisenhardt, 2011).

7.2.2.3 Implication for knowledge management

Finally, it contributes to knowledge management literature by extending several categories of knowledge such as tacit knowledge (Zollo and Winter, 2002) and transactive knowledge of who knows what (Reagans et al., 2005) through the enactment of different social roles during TMT interaction. This emphasises the emergent nature of knowledge and knowledge sharing while populating social roles reflecting simultaneity of knowledge creation and knowledge sharing during team interaction. This extends the notion of team interdependence which requires group coordination that can be perceived as an element of managerial choice (Grant, 1996b).

Hence as seen from the data, the enactment of social roles based on enactment of expectations within the implicit role system provides a coordination mechanism which integrates different types of knowledge like specialised knowledge, tacit knowledge, skills and expertise as a requirement of group coordination due to team interdependence.

The above mechanism extends the notion of knowledge application through coordination having the notion of social roles enactment within naturalistic context as a result of managerial actions. TMT sensing of acquisition opportunities which is grounded in their interaction features knowledge in this case with emergent properties being situated in relational context among executive team members.

7.2.3 Methodological contribution

The adopted approach in this study is inherently reflexive as seen from the use of research methods and methodologies. The role theory provides a useful and alternative lens supporting the notion of analytical dualism espoused so clearly by Archer. However, two main points had contributed to the methodological contribution of this study. The first is the fact that the researcher position as inexperienced in research practice. As a result of that, the researcher's novelty has liberated the researcher from the being constrained by the adoption of one fixed line of inquiry which is the second point. The development of this study which inquires decision making from a social science was a learning exercise where knowledge emerges as the inquiry progress on different variant stages which is described in chapter 3.

The above two points facilitate the development of a research methodology without prior rigour planning. Instead, flexibility of qualitative research methodology turned to become a creative process which adapts accordingly from the very early stages of the literature review and through the entire process of data collection and analysis. The process is an iterative process which demanded a number of trades off decisions at each stage. Notwithstanding, the researcher awareness of research practice to develop sound argument that is accepted by a community of readers is addressed by ensuring researcher's commitment and adherence to required consistency and coherence of philosophical assumptions with methodological strategy and data collection methods.

The combination of grounded approach and protocol analysis in the way that is designed to undertake this study using think aloud and laddering techniques to inquire TMT provides a novel and innovative approach. This approach was developed based on the underlying assumptions of this study. The fact that reality is socially constructed emphasise the subjective nature of inquiry to capture the personal views, beliefs and

insights of research respondents who are in this study executive members of TMT. The "Think aloud" technique using open end questions at the very early stage of data collections allowed the gathering of multiple realities as described by each individual in the team. The researcher awareness of the role of the researcher at this stage facilitates the development of a constructionist account to explore broadly decision making process based on individual's interpretation of what account for them to be an opportunity and how they interpret potential opportunities of acquisitions.

The approach is inherently reflexive. Hence, the researcher interpretation of respondent's interpretation was a step to upgrade the data collection process to a higher level of inquiry. I was not interested in pure subjective views. Rather, it is a search for meanings which can fit few substantive theories of DC, DMC and strategy process. After some analysis of a considerable amount of qualitative data from the interviews, several meanings of social interactions among the TMT opened the black box of decision making process using DMC lenses. At this stage the researcher change position from being neutral listener to further probe the identified meanings at a higher level of data collection using the laddering technique in a grounded approach. The researcher new position account for reconstructing the data into meaningful data that can explain the role of TMT from a relational social prospect where their new knowledge about their world is constructed as it emerges through their action and interaction rather than from a prior assumptions of their world as a rational decision making process.

The approach is innovative in the sense of developing new theory grounded in behaviour and action of managers and thus, conceptualises that as a new source to DMC. By treating the independent roles and the organisational roles as distinct unit analysis the role theory provides a way to support the analytical dualism concept espoused by Archer (1995) and (2003) and provided a way to understanding the varying degrees of

agency during the sensing meeting of the TMT members. This extends our limited understanding about the role of TMT according to the cognitive tradition. The approach is also novel in the sense of research design based on naturalistic doing of research study without a prior adherence to a fixed methodology from text book research methodology. The reflexivity inherent in the methodology increased the researcher's sensitivity to the research practice and therefore, learning.

7.3   Implication for practice

The role of TMT is recognised individually and collectively in exploring potential opportunities. They play essential role in adapting their organisation by collective sensing of product market opportunities that emerge. Key executives of TMT who are engaged in acquisition decision making process are advised to rely on their soft skills, playing different roles in addition to their use of rational tools and expected synergies.

The structure of decision making team should be diverse to include a number of members other than the strategist being the CEO and the chief financial officer. A TMT should compose of a number of executives with diverse expertise to involve members from corporate level and managing directors from functional levels.

Furthermore diversity in cognitive style should also be sought for. Taken together the different elements of diversity help to widen the scope of opportunity search and scouting potential opportunities as change signals emerge in the environment. It also ensures sharing accountability and responsibility of implementation at later stage since decision making and implementation is integrated within the same team. This might reduce the gap in expectations of later returns since the decision is informed and speculations are made by the same team.

In addition to that, a diverse executive team enriches acquisition decision making routine that is underlie by a diverse tacit knowledge, skills and expertise. The heterogeneous multi-level structured team effort will be reflected through managerial judgement of potential opportunities in time of recession when scouting opportunities that are new to existing managerial commitments which are bound by current resource allocations.

The most important element of diverse TMT in acquisition decision making is summarised by two factors. First is the importance of social interaction during the decision making while interpreting available information by team members. The second point is the importance of creating different roles and populating it. The additional different role provide a safely psychological environment to coordinate underlying skills and tacit knowledge in an open democratic culture of decision making rather than relying on hierarchical decision making or the use of rational tools.

This study finding highlights the importance of social interaction among heterogeneous team of executives to deal with uncertainty when exploring potential opportunities. It asserts the importance of specialised knowledge, accumulated experience and management learning in action which underscore TMT social interaction during sensing phase. The creation of diverse TMT will blend individual skills into an idiosyncratic dynamic capability of the team. The subtle effect of social interaction among diverse team members is illustrated by the presence of implicit role system which facilitates socialisation of knowledge and expressing concerns. This role system will vary depending on the involved members and context since it is a property of individual managers that unite collectively and differentiate them from other teams.

Furthermore, the residual effect of knowledge socialisation on stabilising sensing phase helps executive members of the team to handle uncertainty and advocates their thinking when identifying future opportunities. Populating different roles will enable the application and integration of tacit knowledge which is embedded in individuals and cannot be codified. It is through the interaction that the sum of human capital of TMT transforms the decision making process of inherently uncertain acquisitions into a collective act. Sensing phase become a collective creative act of the team based on individual entrepreneurial behaviour that can be argumentatively and naturalistic rather than subjected to cognitive limitation of individuals.

The emergent and situated nature of tacit knowledge as highlighted in this study has re-emphasised the fluidity of knowledge as continually evolving from individual differences. A final thought directs attention to the need for TMT to codify knowledge as much as possible and update it to enhance the search process of acquisition opportunities. This can be achieved by developing a spread sheet of key players in the market industry and any other players as they emerge. Needless to say the importance of updating the potential acquisition spread sheet which provides an acquisition list that can be reviewed in executive periodic meetings. This helps the executive team to be informed by having a lively picture of changes in the environment in its real time. Such a practice have the potential to reduce the information gap between strategic and operation levels which will reduce information cost and opportunity loss along the different levels of management. It promise also enhance the promptness of opportunity identification and capturing.

7.4   Directions and suggestions for future research

This research has achieved its aim through the exploration of the role of TMT action and interaction during decision making within acquisition context adopting a theory

building case study approach. Nevertheless, there are several ways that can be made to further extend the theoretical contribution of this study and overcome inherent research limitations that are due to the trade-offs decisions as a feature of social science research (Easterby-Smith et al., 2012). First, more research can be done validating the emergent concepts in order to deepen our understanding of the nature of emergent relations. The exploratory nature of this study guided the selection of a purposive single case study which limits the scope of generalizability of the findings. However, the use of more case studies with mixed methods tools will help to overcome the limited generalizability of findings. This is important to be addressed taking into consideration the rationale for the current study to work with qualitative data only as an important factor (Graebner et al., 2012).

Theoretical generalizability in this study is sought instead of statistical generalizability to build on existing broad stream of research namely micro-foundation of DC. Theory building about sources of DMC put emphases on the role of TMT social interaction and its effect on transforming and stabilising a collective sensing phase as an important phase of decision making process. The scant literature on DMC and its sources provides a novel area of research where the researcher engagement in the field work without a previous conception of any theoretical framework of what might be expected in this regard is a necessity. Therefore, research findings are less confined to any bias when looking for patterns in the data.

However, and as a result of that, findings are limited to a particular industrial and geographical context. This conforms to the notion of idiosyncrasies of DC and therefore, to the DMC. This leads to the second suggestion to direct future research expanding it to other sectors using other organisations among different TMTs instead of relying on a single case study that is confined to one sector.

A third suggestion may be to explore whether different roles apply in different cultures since this study is cultural specific to Anglo American corporate system. As well as social structure, social roles can be conditioned by cultural structures of organisations.

A fourth suggestion relates to unpacking the reflexive mode of the hybrid role e.g. facilitator and arbitrator. Whilst the reflexive modes of the controller and part of that of the proposer appear well defined, those of the arbitrator and the facilitator are less obvious. However, based on the available data they seem to display traits of both communicative and autonomous reflexives.

Furthermore, according to findings, effective collective decision making under uncertain conditions relies on a mixture of different agential potential, further measures should be carried out to investigate the right combination of reflexive modes in term of team structure as a fifth suggestion.

Finally, a sixth suggestion is to explore the impact of gender role in TMT social interaction among TMT having that the current TMT in this study is limited to male members ranging from their 40s and 50s which raise a question whether demographic characteristics can be a variant factor to sources of DMC in TMT during sensing activities.

References

ADNER, R. & HELFAT, C., E. 2003. Corporate effects and dynamic managerial capabilities. *Strategic Management Journal,* 24**,** 1011-1025.

ALVESSON, M. & ASHCRAFT, K. L. (eds.) 2012. *Interviews,* London: Sage.

ALVESSON, M. & SKOLDBERG, K. 2004. *Reflexive Methodology,* London, Sage Publications.

AMBROSINI, V. & BOWMAN, C. 2009. What are dynamic capabilities and are they a useful construct in strategic management? *International Journal of Management Reviews,* 11**,** 29-49.

AMBROSINI, V., BOWMAN, C. & COLLIER, N. 2009. Dynamic Capabilities: An Exploration of How Firms Renew their Resource Base. *British Journal of Management,* 20**,** S9-S24.

AMIT, R. & SCHOEMAKER, P. J. H. 1993. Strategic Assets and Organizational Rent. *Strategic Management Journal,* 14**,** 33-46.

ARCHER, M. 1995. *Realist social theory: the morphogenetic approach,* Great Britain, Cambridge university press.

ARCHER, M. 2003. *Structure, agency and the internal conversation,* United Kingdom.

ARGOTE, L. & REN, Y. 2012. Transactive Memory Systems: A Microfoundation of Dynamic Capabilities. *journal of Management Studies,* 49**,** 1375-1382.

Double loop learning in organizations, 1977. Article. Directed by ARGYRIS, C.: Harvard Business School Publication Corp.

AUGIER, M. & TEECE, D. J. 2009. Dynamic Capabilities and the Role of Managers in Business Strategy and Economic Performance. *Organization Science,* 20**,** 410-421.

BAILEY, P. H. & TILLEY, S. 2002. Storytelling and the interpretation of meaning in qualitative research. *Journal of Advanced Nursing,* 38**,** 574-583.

BANTON, M. 1965. *Roles,* London, Tavistock publications limited.

BARNETT, W. P. & BURGELMAN, R. A. 1996. Evolutionary Perspectives on Strategy. *Strategic Management Journal,* 17**,** 5-19.

BARNEY, J. 1991a. Firm Resources and Sustained Competitive Advantage. *Journal of Management,* 17**,** 99-120.

BARNEY, J. 1991b. Special Theory Forum: The Resource-Based Model of the Firm: Origins, Implications, and Prospects. *Journal of Management,* 17**,** 97-98.

BARNEY, J. & HESTERLY, W. S. 2011. *Strategic management and competitve advantage concepts,* London, Pearson.

BARNEY, J. B. 1986a. Organizational Culture: Can It Be a Source of Sustained Competitive Advantage? *Academy of Management. The Academy of Management Review,* 11**,** 656-666.

BARNEY, J. B. 1986b. STRATEGIC FACTOR MARKETS: EXPECTATIONS, LUCK, AND BUSINESS STRATEGY. *Management Science (1986-1998),* 32**,** 1231-1241.

BARNEY, J. B. 2001a. Is the Resource-Based "View" a Useful Perspective for Strategic Management Research? Yes. *Academy of Management Review,* 26**,** 41-56.

BARNEY, J. B. 2001b. Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of Management,* 27**,** 643-650.

BARNEY, J. B., KETCHEN, D. J. & WRIGHT, M. 2011. The Future of Resource-Based Theory. *Journal of Management,* 37**,** 1299-1315.

BENTON, T. & CRAIB, I. 2001. *Philosopy of Social Science,* UK, Palgrave macmillan.

BERG, B. L. 2007. *Qualitative research methods for the social sciences,* London, Pearson.

BIDDLE, B. J. 1986. Recent Development in Role Theory. *Annual Review of Sociology,* 12**,** 67-92.

BIDDLE, B. J. & THOMAS, E. J. (eds.) 1966. *Role Theory: Concepts and Research* London: John Wiley & Sons.

BINGHAM, C. B. & EISENHARDT, K. M. 2011. Rational heuristics: the 'simple rules' that strategists learn from process experience. *Strategic Management Journal,* 32**,** 1437-1464.

BLOOR, M. (ed.) 1983. *Notes on member validation,* Boston: Little Brown.

BOGDAN, R. & TAYLOR, S. 1975. *Introduction to qualitative research and methods,* London, A Wiley-Interscience Publication.

BOURGEOIS, L. J., III 1980. Performance and Consensus. *Strategic Management Journal,* 1**,** 227-248.

BOURGEOIS, L. J., III 1985. Strategic Goals, Perceived Uncertainty, and Economic Performance in Volatile Environments. *The Academy of Management Journal,* 28**,** 548-573.

BRAUN, V. & CLARKE, V. 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology,* 3**,** 77-101.

BREUER, F., MRUCK, K. & ROTH, W.-M. 2002. *Subjectivity and Reflexivity: An Introduction.*

BRYMAN, A. & BELL, E. 2003. *Business research Methods,* Oxford, Oxford University Press.

BURGELMAN, R. A. 1983a. Corporate Entrepreneurship and Strategic Management: Insights from a Process Study. *Management Science,* 29**,** 1349-1364.

BURGELMAN, R. A. 1983b. A Process Model of Internal Corporate Venturing in the Diversified Major Firm. *Administrative Science Quarterly,* 28**,** 223-244.

BURGELMAN, R. A. 1988. Strategy Making as a Social Learning Process: The Case of Internal Corporate Venturing. *Interfaces,* 18**,** 74-85.

BURGELMAN, R. A. 1991. Intraorganizational Ecology of Strategy Making and Organizational Adaptation: Theory and Field Research. *Organization Science,* 2**,** 239-262.

BURGELMAN, R. A. 1994. Fading Memories: A Process Theory of Strategic Business Exit in Dynamic Environments. *Administrative Science Quarterly,* 39**,** 24-56.

BURGELMAN, R. A. 1996. A Process Model of Strategic Business Exit: Implications for an Evolutionary Perspective on Strategy. *Strategic Management Journal,* 17**,** 193-214.

BURGOYNE, J. G. & HODGSON, V. E. 1983. Natural learning and managerial action : A phenomenological study in the field setting *Journal of Management Studies,* 20**,** 387-399.

BURRELL, G. & MORGAN, G. 1979. *Sociological Paradigms and Organisational Analysis,* London, Heinemann Educational Books Ltd.

CALORI, R. 1998. Essai: Philosophizing on Strategic Management Models. *Organization Studies,* 19**,** 281-306.

CARLISLE, Y. & MCMILLAN, E. 2002. Thinking differently about strategy: comparing paradigms. *16th Australian and New Zealand Academy of Management Conference, 4-7 December* Beechworth,

Victoria , Australia.

CASTANIAS, R. P. & HELFAT, C. E. 1991. Managerial Resources and Rents. *Journal of Management,* 17**,** 155-171.

CASTANIAS, R. P. & HELFAT, C. E. 2001. The managerial rents model: Theory and empirical analysis. *Journal of Management,* 27**,** 661-678.

CAVUSGIL, E., SEGGIE, S. H. & TALAY, M. B. 2007. DYNAMIC CAPABILITIES VIEW: FOUNDATIONS AND RESEARCH AGENDA. *Journal of Marketing Theory & Practice,* 15**,** 159-166.

CHAHARBAGHI, K. & LYNCH, R. 1999. Sustainable competitive advantage: towards a dynamic resource-based strategy. *Management Decision,* 37**,** 45-50.

CLARKE, J., THORPE, R., ANDERSON, L. & GOLD, J. 2006. It's all action, it's all learning: action learning in SMEs. *Journal of European Industrial Training,* 30**,** 441-455.

COFF, R. W. 1999. When Competitive Advantage Doesn't Lead to Performance: The Resource-Based View and Stakeholder Bargaining Power. *Organization Science,* 10**,** 119-133.

CONNER, K. R. 1991. A Historical Comparison of Resource-Based Theory and Five Schools of Thought Within Industrial Organization Economics: Do We Have a New Theory of the Firm? *Journal of Management,* 17**,** 121-154.

COYNE, I. T. 1997. Sampling in qualitative research. Purposeful and theoretical sampling; merging or clear boundaries? *Journal of Advanced Nursing,* 26**,** 623-630.

CROPANZANO, R. & MITCHELL, M. S. 2005. Social Exchange Theory: An Interdisciplinary Review. *Journal of Management,* 31**,** 874-900.

CROTTY, M. 2005. *The Foundations of Socail Research* London, Sage Publications.

CYERT, R. & MARCH, J. 1992. *A Behavioral Theory of the Firm,* USA, Blackwell Business.

DAFT, R. L. & WEICK, K. E. 1984. Toward a Model of Organizations as Interpretation Systems. *Academy of Management Review,* 9**,** 284-295.

DANNEELS, E. 2011. Trying to become a different type of company: dynamic capability at Smith Corona. *Strategic Management Journal,* 32**,** 1-31.

DAVIES, P. H. J. 2001. Spies as Informants: Triangulation and the Interpretation of Elite Interview Data in the Study of the Intelligence and Security Services. *Politics,* 21**,** 73-80.

DEEDS, D. L., DECAROLIS, D. & COOMBS, J. 2000. Dynamic capabilities and new product development in high technology ventures: An empirical analysis of new biotechnology firms. *Journal of Business Venturing,* 15**,** 211-229.

DEETZ, S. 1996. Describing Differences in Approaches to Organization Science: Rethinking Burrell and Morgan and Their Legacy. *Organization Science,* 7**,** 191-207.

DELBRIDGE, R. & EDWARDS, T. 2013. Inhabiting Institutions: Critical Realist Refinements to Understanding Institutional Complexity and Change. *Organization Studies,* 34**,** 927-947.

DENZIN, N. K. & LINCOLN, Y. S. 2000. *Handbook of qualitative research,* Sage publications, London.

DEUTSCH, M. & GERARD, H. B. 1955. A study of normative and informational social influences upon individual judgment. *The Journal of Abnormal and Social Psychology,* 51**,** 629-636.

DIERICKX, I. & COOL, K. 1989. Asset Stock Accumulation and Sustainability of Competitive Advantage. *Management Science,* 35**,** 1504-1511.

DOZ, Y. L. 1996. The Evolution of Cooperation in Strategic Alliances: Initial Conditions or Learning Processes? *Strategic Management Journal,* 17**,** 55-83.

DUBERLEY, P. J. & CASSELL, C. (eds.) 2012. *Philosophies underpinning qualitative research,* London: Sage.

EASTERBY-SMITH, M., LYLES, M. A. & PETERAF, M. A. 2009. Dynamic Capabilities: Current Debates and Future Directions. *British Journal of Management,* 20**,** S1-S8.

EASTERBY-SMITH, M. & PRIETO, I. M. 2008. Dynamic Capabilities and Knowledge Management: an Integrative Role for Learning? *British Journal of Management,* 19**,** 235-249.

EASTERBY-SMITH, M., THORPE, R. & JACKSON, P. R. 2012. *Management Research* London, Sage.

EISENHARDT, K. M. 1989a. Agency Theory: An Assessment and Review. *The Academy of Management Review,* 14**,** 57-74.

EISENHARDT, K. M. 1989b. Building Theories from Case Study Research. *Academy of Management Review,* 14**,** 532-550.

EISENHARDT, K. M. 1989c. Building Theories From Case Study Research. *Academy of Management. The Academy of Management Review,* 14**,** 532-550.

EISENHARDT, K. M. & GRAEBNER, M. E. 2007. THEORY BUILDING FROM CASES: OPPORTUNITIES AND CHALLENGES. *Academy of Management Journal,* 50**,** 25-32.

EISENHARDT, K. M., KAHWAJY, J. L. & BOURGEOIS III, L. J. 1997. Conflict and Strategic Choice: HOW TOP MANAGEMENT TEAMS DISAGREE. *California Management Review,* 39**,** 42-62.

EISENHARDT, K. M. & MARTIN, J. A. 2000. Dynamic Capabilities: What Are They? *Strategic Management Journal,* 21**,** 1105-1121.

EISENHARDT, K. M. & ZBARACKI, M. J. 1992. STRATEGIC DECISION-MAKING. *Strategic Management Journal,* 13**,** 17-37.

ELBANNA, S. 2006. Strategic decision-making: Process perspectives. *International Journal of Management Reviews,* 8**,** 1-20.

EMERSON, R. M. 1976. Social Exchange Theory. *Annual Review of Sociology,* 2**,** 335-362.

FELDMAN, M. S. 2000. Organizational Routines as a Source of Continuous Change. *Organization Science,* 11**,** 611-629.

FELIN, T., FOSS, N. J., HEIMERIKS, K. H. & MADSEN, T. L. 2012. Microfoundations of Routines and Capabilities: Individuals, Processes, and Structure. *journal of Management Studies,* 49**,** 1351-1374.

FELIN, T. & HESTERLY, W. S. 2007. The Knowledge-Based View, Nested Heterogeneity, and New Value Creation: Philosophical Considerations on the Locus of Knowledge. *The Academy of Management Review,* 32**,** 195-218.

Organizational Learning, 1985. Article. Directed by FIOL, C. M. & LYLES, M. A.: Academy of Management.

FLOYD, S. W. & LANE, P. J. 2000. Strategizing throughout the Organization: Managing Role Conflict in Strategic Renewal. *The Academy of Management Review,* 25**,** 154-177.

FRIEDELL, M. F. 1967. Organizations as Semilattices. *American Sociological Review,* 32**,** 46-54.

GALUNIC, D. C. & EISENHARDT, K. M. 2001. ARCHITECTURAL INNOVATION AND MODULAR CORPORATE FORMS. *Academy of Management Journal,* 44**,** 1229-1249.

GARUD, R. & VEN, A. H. V. D. 1992. An Empirical Evaluation of the Internal Corporate Venturing Process. *Strategic Management Journal,* 13**,** 93-109.

GAVETTI, G. 2005. Cognition and Hierarchy: Rethinking the Microfoundations of Capabilities' Development. *Organization Science,* 16**,** 599-617.

GAVETTI, G. & LEVINTHAL, D. 2000. Looking Forward and Looking Backward: Cognitive and Experiential Search. *Administrative Science Quarterly,* 45**,** 113-137.

GEORGE, A. & BENNETT, A. 2005. *Case Studies and Theory Development in the Social Sciences,* London, MIT Press.

GERRING, J. 2007. *Case Study Research: Principles and Practices,* Cambridge Cambridge University Press.

GIDDENS, A. 1984. *The constitution of society,* Cambridge, Polity Press.

GLASER, B. & SRAUSS, A. 1967. *Discovery of Grounded Theory,* Chicago, Aldine.

GODFREY, P. C. & HILL, C. W. L. 1995. The problem of unobservables in strategic management research. *Strategic Management Journal,* 16**,** 519-533.

GOFFMAN, E. 1990. *The presentation of self in everyday life,* London Penguin.

GRAEBNER, M. E., MARTIN, J. A. & ROUNDY, P. T. 2012. Qualitative data: Cooking without a recipe. *Strategic Organization,* 10**,** 276-284.

GRANT, R. M. 1991. The Resource-Based Theory of Competitive Advantage: Implications for Strategy Formulation. *California Management Review,* 33**,** 114-135.

GRANT, R. M. 1996a. Prospering in Dynamically-competitive Environments: Organizational Capability as Knowledge Integration. *Organization Science,* 7**,** 375-387.

GRANT, R. M. 1996b. Toward a knowledge-based theory of the firm. *Strategic Management Journal,* 17**,** 109-122.

GREWAL, R. & SLOTEGRAAF, R. J. 2007. Embeddedness of Organizational Capabilities*. *Decision Sciences,* 38**,** 451-488.

GUBA, E. 1981. Criteria for assessing the trustworthiness of naturalistic inquiries. *ECTJ,* 29**,** 75-91.

GUBA, E. G. & LINCOLN, Y. S. 1994. Competing paradigms in quallitative research. *In:* DENZIN, N. K. & LINCOLN, Y. S. E. (eds.) *Handbook of Quallitative Research.* Thousand Oaks: Sage.

GUEST, G., BUNCE, A. & JOHNSON, L. 2006. How Many Interviews Are Enough?: An Experiment with Data Saturation and Variability. *Field Methods,* 18**,** 59-82.

HALL, R. 1992. THE STRATEGIC ANALYSIS OF INTANGIBLE RESOURCES. *Strategic Management Journal (1986-1998),* 13**,** 135-145.

HAMBRICK, D. C. & MASON, P. A. 1984. Upper Echelons: The Organization as a Reflection of Its Top Managers. *Academy of Management Review,* 9**,** 193-206.

HANNAN, M. T. & FREEMAN, J. 1977. The Population Ecology of Organizations. *The American Journal of Sociology,* 82**,** 929-964.

HAYNES, K. (ed.) 2012. *Reflexivity in qualitative research,* London: Sage.

HELFAT, C. E., FINKELSTEIN, S., MITCHELL, W., PETERAF, M. A., SINGH, H., TEECE, D. J. & WINTER, S. G. 2007. *Dynamic Capabilits: Foundations* Malden Blackwell Pub.

HELFAT, C. E. & PETERAF, M. A. 2003. The dynamic resource-based view: capability lifecycles. *Strategic Management Journal,* 24**,** 997-1010.

HENDERSON, R. & COCKBURN, I. 1994. Measuring Competence? Exploring Firm Effects in Pharmaceutical Research. *Strategic Management Journal,* 15**,** 63-84.

HENRY, A. 2008. *Understanding strategic management* USA, Oxford university press.

HICKSON, D. J., BUTLER, R. J., CRAY, D., MALLORY, G. R. & WILSON, D. C. 1986. *Top Decisions Strategic Decision ~ Making in Organisations* Oxford, Basil Blackwell.

HITT, M. A. & DUANE, R. 2002. The Essence of Strategic Leadership: Managing Human and Social Capital. *Journal of Leadership & Organizational Studies,* 9**,** 3-14.

HODGKINSON, G. P. & HEALEY, M. P. 2011. Psychological foundations of dynamic capabilities: reflexion and reflection in strategic management. *Strategic Management Journal,* 32**,** 1500-1516.

HODGSON, G. M. 2012. The Mirage of Microfoundations. *journal of Management Studies,* 49**,** 1389-1394.

HOLT, R. (ed.) 2012. *Ethical research practice,* London: Sage.

HOSKISSON, R. E., HITT, M. A., WAN, W. P. & YIU, D. 1999. Theory and research in strategic management: Swings of a pendulum. *Journal of Management,* 25**,** 417-456.

INGRAM, P. 1996. Organizational Form as a Solution to the Problem of Credible Commitment: The Evolution of Naming Strategies Among U.S. Hotel Chains, 1896-1980. *Strategic Management Journal,* 17**,** 85-98.

JACKSON, J. A. (ed.) 1972. *Role,* Cambridge: The university press.

JOHNSON, G., MELIN, L. & WHITTINGTON, R. 2003. Guest Editors' Introduction. *journal of Management Studies,* 40**,** 3-22.

JOHNSON, G. & SCHOLES, K. 1999. *Exploring Corporate Strategy,* London, Prentice Hall Europe

JOHNSON, G., WHITTINGTON, R. & SCHOLES, K. 2011. *Exploring Strategy* London, Pearson.

KATKALO, V. S., PITELIS, C. N. & TEECE, D. J. 2010. Introduction: On the nature and scope of dynamic capabilities. *Industrial and Corporate Change,* 19**,** 1175-1186.

KEATS, B. W. & HITT, M. A. 1988. A CAUSAL MODEL OF LINKAGES AMONG ENVIRONMENTAL DIMENSIONS, MACRO ORGANIZATIONAL CHARACTERISTICS, AND PERFORMANCE. *Academy of Management Journal,* 31**,** 570-598.

KELEMEN, M. & RUMENS, N. 2008. *An introduction to critical management research,* London, Sage publications

KETCHEN, D. J., BOYD, B. K. & BERGH, D. D. 2008. Research Methodology in Strategic Management: Past Accomplishments and Future Challenges. *Organizational Research Methods,* 11**,** 643-658.

KHATRI, N. & NG, H. A. 2000. The Role of Intuition in Strategic Decision Making. *Human Relations,* 53**,** 57-86.

KIESLER, S. & SPROULL, L. 1982. Managerial Response to Changing Environments: Perspectives on Problem Sensing from Social Cognition. *Administrative Science Quarterly,* 27**,** 548-570.

KING, N. 2004. Using interviews in qualitative research. *In:* CASSEL, C. & SYMON, G. E. (eds.) *Essential Guide to Qualitative Mehtods in Organisational Research* London: Sage.

KNIGHTS, D. & MORGAN, G. 1991. Corporate Strategy, Organizations, and Subjectivity: A Critique. *Organization Studies,* 12**,** 251-273.

KOGUT, B. & ZANDER, U. 1992. KNOWLEDGE OF THE FIRM, COMBINATIVE CAPABILITIES, AND THE REPLICATION OF TECHNOLOGY. *Organization Science,* 3**,** 383-397.

KOR, Y. Y. & MAHONEY, J. T. 2004. Edith Penrose's (1959) Contributions to the Resource-based View of Strategic Management. *journal of Management Studies,* 41**,** 183-191.

KOR, Y. Y. & MAHONEY, J. T. 2005. How dynamics, management, and governance of resource deployments influence firm-level performance. *Strategic Management Journal,* 26**,** 489-496.

KOR, Y. Y., MAHONEY, J. T. & MICHAEL, S. C. 2007. Resources, Capabilities and Entrepreneurial Perceptions*. *journal of Management Studies,* 44**,** 1187-1212.

KOR, Y. Y. & MESKO, A. 2012. Dynamic managerial capabilities: configuration and orchestration of top executives' capabilities and the firm's dominant logic. *Strategic Management Journal,* n/a-n/a.

KRUG, J. A. & HEGARTY, W. H. 2001. Predicting who stays and leaves after an acquisition: a study of top managers in multinational firms. *Strategic Management Journal,* 22**,** 185-196.

KVALE, S. 1996. *Interviews An Introduction to Qualitative Research Interviewing,* London, Sage Publications.

LADO, A. A., BOYD, N. G. & WRIGHT, P. 1992. A Competency-Based Model of Sustainable Competitive Advantage: Toward a Conceptual Integration. *Journal of Management,* 18**,** 77-91.

LAM, A. 2000. Tacit Knowledge, Organizational Learning and Societal Institutions: An Integrated Framework. *Organization Studies,* 21**,** 487-513.

LAMPEL, J. & SHAMSIE, J. 2003. Capabilities in Motion: New Organizational Forms and the Reshaping of the Hollywood Movie Industry. *journal of Management Studies,* 40**,** 2189-2210.

LANGLEY, A. 1999. Strategies for Theorizing from Process Data. *The Academy of Management Review,* 24**,** 691-710.

LARSSON, R. & FINKELSTEIN, S. 1999. Integrating Strategic, Organizational, and Human Resource Perspectives on Mergers and Acquisitions: A Case Survey of Synergy Realization. *Organization Science,* 10**,** 1-26.

LEE, T. W. 1999. *Using qualitative methods in organisational research,* london, Sage Publicaitions.

LEECH, B. L. 2002. Asking Questions: Techniques for Semistructured Interviews. *Political Science & Politics,* 35**,** 665-668.

LEONARD-BARTON, D. 1992. Core Capabilities and Core Rigidities: A Paradox in Managing New Product Development. *Strategic Management Journal,* 13**,** 111-125.

LEWIS, K., LANGE, D. & GILLIS, L. 2005. Transactive Memory Systems, Learning, and Learning Transfer. *Organization Science,* 16**,** 581-598.

LIAO, J., KICKUL, J. R. & MA, H. 2009. Organizational Dynamic Capability and Innovation: An Empirical Examination of Internet Firms. *Journal of Small Business Management,* 47**,** 263-286.

LILLEKER, D. G. 2003. Interviewing the Political Elite: Navigating a Potential Minefield. *Politics,* 23**,** 207-214.

LOCKE, K. 1996. Rewriting the Discovery of Grounded Theory after 25 Years? *Journal of Management Inquiry,* 5**,** 239-245.

LOCKE, K. & GOLDEN-BIDDLE, K. 1997. CONSTRUCTING OPPORTUNITIES FOR CONTRIBUTION: STRUCTURING INTERTEXTUAL COHERENCE AND "PROBLEMATIZING" IN ORGANIZATIONAL STUDIES. *Academy of Management Journal,* 40**,** 1023-1062.

LUO, Y. & PENG, M. W. 1999. Learning to Compete in a Transition Economy: Experience, Environment, and Performance. *Journal of International Business Studies,* 30**,** 269-295.

MACHI, L. A. & MCEVOY, B. T. 2009. *The literature review,* London, Sage.

MACLEOD, G. & WYNDHAM, J. 1991. Developing the Competent Manager. *Asia Pacific Journal of Human Resources,* 29**,** 69-78.

MAHONEY, J. T. 1995. The management of resources and the resource of management. *Journal of Business Research,* 33**,** 91-101.

MAHONEY, J. T. 2001. A resource-based theory of sustainable rents. *Journal of Management,* 27**,** 651-660.

MAHONEY, J. T. & PANDIAN, J. R. 1992. The resource-based view within the conversation of strategic management. *Strategic Management Journal,* 13**,** 363-380.

MAKADOK, R. 2001. Toward a synthesis of the resource-based and dynamic-capability views of rent creation. *Strategic Management Journal,* 22**,** 387-401.

MAKADOK, R. & WALKER, G. 1996. Search and selection in the money market fund industry. *Strategic Management Journal,* 17**,** 39-54.

MANTERE, S. 2008. Role Expectations and Middle Manager Strategic Agency. *journal of Management Studies,* 45**,** 294-316.

MARCH, J. & SIMON, H. A. 1993. *Organisations,* UK, Blackwell Business.

MARTIN, J. A. 2010. Dynamic Managerial Capabilities and the Multibusiness Team: The Role of Episodic Teams in Executive Leadership Groups. *Organization Science,* Articles in advance**,** 1-23 orsc.1090.0515.

MAYRING, P. 2000. *Qualitative Content Analysis*.

MCEVOY, P. & RICHARDS, D. 2006. A critical realist rationale for using a combination of quantitative and qualitative methods. *Journal of Research in Nursing,* 11**,** 66-78.

MILES, M. M. & HUBERMAN, A. M. 1994. *Qualitative data analysis,* London, Sage.

MILLER, D. 1996. A preliminary typology of organizational learning: Synthesizing the literature. *Journal of Management,* 22**,** 485-505.

MILLS, J., BONNER, A. & FRANCIS, K. 2006. The development of constructivist grounded theory. *international journal of qualitative methods,* 5**,** 25-35.

MINTZBERG, H. 1971. Managerial Work: Analysis from Observation. *Management Science,* 18**,** B97-B110.

MINTZBERG, H. 1978. Patterns in Strategy Formation. *Management Science,* 24**,** 934-948.

MINTZBERG, H. 1979. *The structuring of organisations,* New Jersy: Printice-Hall, Englewood Cliffs.

MINTZBERG, H. 1994. *The Rise and Fall of Strategic Planning* New York, Free press.

MINTZBERG, H., RAISINGHANI, D. & THÃ©ORÃªT, A. 1976. The Structure of "Unstructured" Decision Processes. *Administrative Science Quarterly,* 21**,** 246-275.

MINTZBERG, H. & WATERS, J., A. 1982. Tracking strategy in an entrepreneurial firm. *Academy of Management Journal (pre-1986),* 25**,** 465-499.

MIR, R. & WATSON, A. 2001. Critical realism and constructivism in strategy research: toward a synthesis. *Strategic Management Journal,* 22**,** 1169-1173.

MISHLER, E. 1990. Validation in Inquiry-Guided Research: The Role of Exemplars in Narrative Studies. *Harvard Educational Review,* 60**,** 415-443.

MOLITERNO, T. P. & WIERSEMA, M. F. 2007. Firm performance, rent appropriation, and the strategic resource divestment capability. *Strategic Management Journal,* 28**,** 1065-1087.

MOLM, L. D. 1994. Dependence and Risk: Transforming the Structure of Social Exchange. *Social Psychology Quarterly,* 57**,** 163-176.

MORELAND, R. & ARGOTE, L. (eds.) 2003. *Transactive memory in dynamic organisations,* London: Lawrence Erlbaum Associates, Publishers.

MORRIS, Z. S. 2009. The Truth about Interviewing Elites. *Politics,* 29**,** 209-217.

NARAYANAN, V. K., COLWELL, K. & DOUGLAS, F. L. 2009. Building Organizational and Scientific Platforms in the Pharmaceutical Industry: A

Process Perspective on the Development of Dynamic Capabilities. *British Journal of Management,* 20**,** S25-S40.

NELSON, R. R. & WINTER, S. G. 1982. *An Evolutionary Theory of Economic Change,* Cambridge, MA, Harvard University Press.

NEWBERT, S. L. 2005. New Firm Formation: A Dynamic Capability Perspective*. *Journal of Small Business Management,* 43**,** 55-77.

NEWBERT, S. L. 2007. Empirical research on the resource-based view of the firm: an assessment and suggestions for future research. *Strategic Management Journal,* 28**,** 121-146.

NIGEL, K. (ed.) 2012. *Doing template analysis,* London: Sage.

NODA, T. & BOWER, J. L. 1996. Strategy Making as Iterated Processes of Resource Allocation. *Strategic Management Journal,* 17**,** 159-192.

NONAKA, I. 1994. A Dynamic Theory of Organizational Knowledge Creation. *Organization Science,* 5**,** 14-37.

NONAKA, I., TOYAMA, R. & NAGATA, A. 2000. A firm as a knowledge-creating entity: a new perspective on the theory of the firm. *Industrial and Corporate Change,* 9**,** 1-20.

NYSTROM, P. C. & STARBUCK, W. H. 1984. To avoid organizational crises, unlearn. *Organizational Dynamics,* 12**,** 53-65.

O'REILLY III, C. A. & TUSHMAN, M. L. 2008. Ambidexterity as a dynamic capability: Resolving the innovator's dilemma. *Research in Organizational Behavior,* 28**,** 185-206.

ONWUEGBUZIE, A. & LEECH, N. 2012. Sampling designs in qualitative research: making the sampling process more public. *Qualitative Report* 12**,** 238-254.

PABLO, A. L., REAY, T., DEWALD, J. R. & CASEBEER, A. L. 2007. Identifying, Enabling and Managing Dynamic Capabilities in the Public Sector. *journal of Management Studies,* 44**,** 687-708.

PANDZA, K. 2010. Why and How Will a Group Act Autonomously to Make an Impact on the Development of Organisational Capabilities? *Journal of Management Studies* Forthcoming

PANDZA, K. & THORPE, R. 2009. Creative Search and Strategic Sense-making: Missing Dimensions in the Concept of Dynamic Capabilities. *British Journal of Management,* 20**,** S118-S131.

PARKHURST, H. B. 1999. Confusion, Lack of Consensus, and the Definition of Creativity as a Construct. *The Journal of Creative Behavior,* 33**,** 1-21.

PAVITT, K. 1991. Key Characteristics of the Large Innovating Firm. *British Journal of Management,* 2**,** 41.

PEARCE, J. L., XIN, K. M., XU, Q. J. & RAO, A. N. 2011. Managers' Context: How Government Capability Affects Managers. *British Journal of Management,* 22**,** 500-516.

PENROSE, E. 1958. *The theory of the growth of the firm,* New York, Wiley.

PENROSE, E. G. 1959. *The theory of the growth of the firm* New York, Wiley.

PERRY, C. 1998. Processes of a case study methodology for postgraduate research in marketing. *European Journal of Marketing,* 32**,** 785-802.

PESCOSOLIDO, B. 1992. Beyond Rational Choice: The social dynamics of how people seek help. *American Journal of Sociology,* 97**,** 1096-1138.

PETERAF, M. A. 1993. The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal,* 14**,** 179-191.

PETRONI, A. 1998. The analysis of dynamic capabilities in a competence-oriented organization. *Technovation,* 18**,** 179-189.

PETTIGREW, A., THOMAS, H. & WHITTINGTON, R. 2010. *Handbook of Strategy and Management,* London, Sage.

PETTIGREW, A. M. 1992. On Studying Managerial Elites. *Strategic Management Journal,* 13**,** 163-182.

PHELAN, P. & REYNOLDS, P. 1996. *Argument and Evidence: critical analysis for the social sciences,* London, Routledge.

PITTS, R. A. 1980. Diversification Through Acquisition. . *Strategic Management Journal,* 1**,** 293-294.

POPITZ, H. (ed.) 1972. *The concept of social role as an element of sociological theory* London: Syndics of the Cambridge University press.

PORTER, M. E. 1987. From competitive advantage to corporate strategy. *Harvard Business Review,* 65**,** 43-59.

PORTER, M. E. 1996. What Is Strategy? *Harvard Business Review,* 74**,** 61-78.

POWELL, T. C., LOVALLO, D. & FOX, C. R. 2011. Behavioral strategy. *Strategic Management Journal,* 32**,** 1369-1386.

PRAHALAD, C. K. & HAMEL, G. 1990. The Core Competence of the Corporation. *Harvard Business Review,* 68**,** 79-91.

PRANGE, C. & VERDIER, S. 2011. Dynamic capabilities, internationalization processes and performance. *Journal of World Business,* 46**,** 126-133.

PRASAD, A. & PRASAD, P. 2002. The Coming of Age of Interpretive Organizational Research. *Organizational Research Methods,* 5**,** 4-11.

PRATT, M. G. 2008. Fitting Oval Pegs Into Round Holes. *Organizational Research Methods,* 11**,** 481-509.

PRIEM, R. L. 1990. Top management team group factors, consensus, and firm performance. *Strategic Management Journal,* 11**,** 469-478.

PRIEM, R. L. & BUTLER, J. E. 2001a. Is the Resource-Based "View" a Useful Perspective for Strategic Management Research? *The Academy of Management Review,* 26**,** 22-40.

PRIEM, R. L. & BUTLER, J. E. 2001b. Tautology in the Resource-Based View and the Implications of Externally Determined Resource Value: Further Comments. *The Academy of Management Review,* 26**,** 57-66.

Individual Experience and Experience Working Together: Predicting Learning Rates from Knowing Who Knows What and Knowing How to Work Together, 2005. Article. Directed by REAGANS, R., ARGOTE, L. & BROOKS, D.: INFORMS: Institute for Operations Research.

REED, R. & DEFILLIPPI, R. J. 1990. Causal Ambiguity, Barriers to Imitation, and Sustainable Competitive Advantage. *The Academy of Management Review,* 15**,** 88-102.

RICHEY JR, R. G., KIESSLING, T. S., TOKMAN, M. & DALELA, V. 2008. Market growth through mergers and acquisitions: The role of the relationship marketing manager in sustaining performance. *Industrial Marketing Management,* 37**,** 394-406.

RINDOVA, V. P. & KOTHA, S. 2001. Continuous "Morphing": Competing through Dynamic Capabilities, Form, and Function. *The Academy of Management Journal,* 44**,** 1263-1280.

RONSTADT, R. 1988. The Corridor Principle. *Journal of Business Venturing,* 3**,** 31-40.

RUGMAN, A. M. & VERBEKE, A. 2002. Edith Penrose's Contribution to the Resource-Based View of Strategic Management. *Strategic Management Journal,* 23**,** 769-780.

RUGMAN, A. M. & VERBEKE, A. 2004. A Final Word on Edith Penrose. *journal of Management Studies,* 41**,** 205-217.

RUMELT, R. P. 1991. How much does industry matter? *Strategic Management Journal,* 12**,** 167-185.

RUSSO, M. V. & FOUTS, P. A. 1997. A RESOURCE-BASED PERSPECTIVE ON CORPORATE ENVIRONMENTAL PERFORMANCE AND PROFITABILITY. *Academy of Management Journal,* 40**,** 534-559.

SALTER, M. & WEINHOLD, W. 1979. *Diversification through Acquisition,* New York, Free Press.

SANDBERG, J. 2005. How Do We Justify Knowledge Produced Within Interpretive Approaches? *Organizational Research Methods,* 8**,** 41-68.

SANDELOWSKI, M. 1993. Rigor or rigor mortis: The problem of rigor in qualitative research revisited. *Advances in Nursing Science,* 16**,** 1-8.

SAPIENZA, H. J., AUTIO, E., GEORGE, G. & ZAHRA, S. A. 2006. A Capabilities Perspective on the Effects of Early Internationalization on Firm Survival and Growth. *The Academy of Management Review,* 31**,** 914-933.

SAUNDERS, M., LEWIS, P. & THORNHILL, A. 2009. *Research methods for business students,* England, Pearson Education Limited.

SCHREYÖGG, G. & KLIESCH-EBERL, M. 2007. How dynamic can organizational capabilities be? Towards a dual-process model of capability dynamization. *Strategic Management Journal,* 28**,** 913-933.

SEALE, C. 2000. *The quality of qualitative research,* London, Sage.

SIMON, H. A. 1991. Bounded Rationality and Organizational Learning. *Organization Science,* 2**,** 125-134.

SINGH, K. & MITCHELL, W. 1996. Precarious collaboration: Business survival after partners shut down or form new partnerships. *Strategic Management Journal,* 17**,** 99-115.

SINKOVICS, R. & ALFOLDI, E. (eds.) 2012. *Facilitating the interaction between theory and data in qualitative research using CAQDAS,* London: Sage.

SIRMON, D. G. & HITT, M. A. 2003. Managing Resources: Linking Unique Resources, Management, and Wealth Creation in Family Firms. *Entrepreneurship Theory and Practice,* 27**,** 339-358.

SIRMON, D. G. & HITT, M. A. 2009. Contingencies within dynamic managerial capabilities: interdependent effects of resource investment and deployment on firm performance. *Strategic Management Journal,* 30**,** 1375-1394.

SIRMON, D. G., HITT, M. A. & IRELAND, R. D. 2007. MANAGING FIRM RESOURCES IN DYNAMIC ENVIRONMENTS TO CREATE VALUE: LOOKING INSIDE THE BLACK BOX. *Academy of Management Review,* 32**,** 273-292.

SNOW, D., BENFORD, R. & ANDERSON, L. 1986. Fieldwork Roles and Informational Yield: A Comparison of Alternative Settings and Roles. *Journal of Contemporary Ethnography,* 14**,** 377-408.

SOLOMON, M. R., SURPRENANT, C., CZEPIEL, J. A. & GUTMAN, E. G. 1985. A Role Theory Perspective on Dyadic Interactions: The Service Encounter. *Journal of Marketing,* 49**,** 99-111.

STARBUCK, W. H. 1983. Organizations as Action Generators. *American Sociological Review,* 48**,** 91-102.

STRAUSS, A. & CORBIN, J. 1998. *Basics of Qualitative Research: techniques and procedures for developing grounded theory,* London, Sage Publications.

SUDDABY, R. 2006. From the editors: What grounded theory is not. *Academy of Management Journal.*

SUDDABY, R. O. Y., ELSBACH, K. D., GREENWOOD, R., MEYER, J. W. & ZILBER, T. B. 2010. ORGANIZATIONS AND THEIR INSTITUTIONAL ENVIRONMENTS--BRINGING MEANING, VALUES, AND CULTURE BACK IN: INTRODUCTION TO THE SPECIAL RESEARCH FORUM. *Academy of Management Journal,* 53**,** 1234-1240.

SYMON, G. E. & CASSELL, C. (eds.) 2012. *Assessing qualitative research,* London: Sage.

TALJA, S., TUOMINEN, K. & SAVOLAINEN, R. 2005. "Isms" in information science: constructivism, collectivism and constructionism. *Journal of Documantation,* 61**,** 79-101.

TEECE, D. J. 1981. The Market for Know-How and the Efficient International Transfer of Technology. *Annals of the American Academy of Political and Social Science,* 458**,** 81-96.

TEECE, D. J. 2007. Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal,* 28**,** 1319-1350.

TEECE, D. J. 2012. Dynamic Capabilities: Routines versus Entrepreneurial Action. *journal of Management Studies,* 49**,** 1395-1401.

TEECE, D. J., PISANO, G. & SHUEN, A. 1997. Dynamic capabilities and strategic management. *Strategic Management Journal,* 18**,** 509-533.

TEECE, D. J., RUMELT, R., DOSI, G. & WINTER, S. 1994. Understanding corporate coherence : Theory and evidence. *Journal of Economic Behavior & Organization,* 23**,** 1-30.

TRIPSAS, M. & GAVETTI, G. 2000. Capabilities, Cognition, and Inertia: Evidence from Digital Imaging. *Strategic Management Journal,* 21**,** 1147-1161.

VEN, A. H. V. D. 1992. Suggestions for Studying Strategy Process: A Research Note. *Strategic Management Journal,* 13**,** 169-191.

VERONA, G. & RAVASI, D. 2003. Unbundling dynamic capabilities: an exploratory study of continuous product innovation. *Industrial and Corporate Change,* 12**,** 577-606.

WANG, C. L. & AHMED, P. K. 2007. Dynamic capabilities: A review and research agenda. *International Journal of Management Reviews,* 9**,** 31-51.

WEICK, K., E., SUTCLIFFE, K., M. & OBSTFELD, D. 2005. Organizing and the Process of Sensemaking. *Organization Science,* 16**,** 409-451.

WEICK, K. E. 2002. Essai: Real-Time Reflexivity: Prods to Reflection. *Organization Studies,* 23**,** 893-898.

WERNERFELT, B. 1984. A Resource-based View of the Firm. *Strategic Management Journal (pre-1986),* 5**,** 171-181.

WILLIAMSON, O. E. 1991. Strategizing, economizing, and economic organization. *Strategic Management Journal,* 12**,** 75-94.

WINTER, S. G. 2003. Understanding Dynamic Capabilities. *Strategic Management Journal,* 24**,** 991-995.

WINTER, S. G. 2012. Capabilities: Their Origins and Ancestry. *journal of Management Studies,* 49**,** 1402-1406.

YIN, R. K. 2009. *Case study research: design and methods* London, Sage.

ZAHRA, S. A., SAPIENZA, H. J. & DAVIDSSON, P. 2006. Entrepreneurship and Dynamic Capabilities: A Review, Model and Research Agenda*. *journal of Management Studies,* 43**,** 917-955.

ZOLLO, M. 2009. Superstitious Learning with Rare Strategic Decisions: Theory and Evidence from Corporate Acquisitions. *Organization Science,* 20**,** 894-908.

ZOLLO, M., REUER, J. J. & SINGH, H. 2002. Interorganizational Routines and Performance in Strategic Alliances. *Organization Science,* 13**,** 701-713.

ZOLLO, M. & WINTER, S. G. 2002. Deliberate Learning and the Evolution of Dynamic Capabilities. *Organization Science,* 13**,** 339-351.

ZOTT, C. 2003. Dynamic capabilities and the emergence of intraindustry differential firm performance: insights from a simulation study. *Strategic Management Journal,* 24**,** 97-125.

Appendices: Appendix A

Dear Recipient,

As I mentioned to you earlier today afternoon in our telephone conversation, the academic community is conducting an academic researcher at the University of Leeds/Business School. The organisational sample is limited to UK based organisations that undertook recent Merger & Acquisition decisions over the last five years. Initial views of CEOs or their delegees are sought to explore any M&A strategic decision of their selection. The interview is going to last for about 30-45 minutes and flexible to be shortening according to their time schedule.

I would like to explicitly restate the aim of this initial interview:

1- To explore the views of CEOs on strategic decision making in view of a decision of their own selection as mentioned above. This will take the form of 6-7 open questions from my side which are going to be answered in conversation style.

2- To identify another four to five key informant participants in such decisions to explore later their views as well.

Your company fulfils our research organisational sample criteria. Confidentiality of participating organisations is guaranteed and anonymity of people as well. Your help in facilitating such step is vital for the success of our research and highly appreciated as the output of such interviews will help us to have better understanding of subtle phenomena such as strategy process. Eventually, this will contribute to the body of knowledge in a critical area within strategic management and further push our understanding of management problems a step forward in term of the relationship between important decisions and their implementations. Please do not hesitate to contact me for any further inquiries.

PS: Please confirm receiving this email.

Maha AlShaghroud

Doctoral Research

Management Division

Leeds University Business School

Maurice Keyworth Building The University of Leeds/Leeds LS2 9JT, UK

E: hss2ma@leeds.ac.uk