THE UNIVERSITY OF LANCASTER

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ORGANISATIONAL LEARNING AND CAPABILITY DEVELOPMENT IN MATURE MEDIUM-SIZED FIRMS: AN EXPLORATION FROM AN ENACTMENT PERSPECTIVE

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ABSTRACT

This thesis uses an enactment perspective to critique and develop the concept of organisational capability. It approaches organisational capability from an interpretivist angle and inquires how organisations actually develop and renew their capabilities for sustainable competitive advantage. As a consequence of adopting the enactment perspective, the thesis reveals that organisational capabilities are much more context-based and variable than the positivist and predictive representation of the concept in the extant literature. It also proposes that organizational design and learning processes play a key role in the development of organisational capabilities.

The research uses qualitative interviews within a case study research design. It studies six medium-sized, mature organisations operating successfully in a variety of industries with diverse market dynamism. In order to move away from a linear representation of organisational capability, the study particularly focuses on the organisational antecedents of capability development in these organisations by relying on participants' accounts to describe how the firm coped with external environmental changes throughout its history.

Based on inductive theorising from intra- and cross-industry analysis, the study observes certain discrepancies in the way existing theories conceptualise organisational capabilities as well as confirms some of their suppositions. Regarding the antecedents of organisational capabilities, the empirical evidence concludes that the development and evolution of organisational capabilities are not only determined by the level of industry dynamism (Eisenhardt and Martin, 2000; Zollo and Winter, 2002); on the contrary, internal endogenous factors seem to matter as much as exogenous shocks. In terms of endogenous antecedents the study reveals a broad contrast between two distinct organisational learning mindsets – *learning to innovate* and *innovating to learn* – that influence how external industry factors are interpreted and translated into internal actions. The thesis confirms existing theories which claim that it is possible to decompose organisational capabilities into distinct, sequenced, hierarchically-ordered levels. But contrary to the literature which claims that only firms with higher-order 'dynamic' capabilities can succeed in changing environments, the thesis shows that multiple levels of capabilities can yield successful competitive performance for many years. Lastly, the thesis applies the concept of organisational learning mechanisms (Popper and Lipshitz, 2000) to investigate the process of capability development and argues that the structural and social facets, such as agent

participation patterns and valuation of knowledge, are of particular importance in producing higher-levels of capabilities and more extensive *organisational* learning.

The thesis contributes to the literature by showing that organisational capabilities are context-bound and idiosyncratic. They are a by-product of organisational life which comes not only through external factors and internal resources, but more importantly through managerial enactment, organisational mindset and learning mechanisms. It critiques existing theories based on the idea of organisation-environment alignment and proposes to introduce the idea of *'envelopment'* which redefines the relationship between the organisation and its environment. The key idea is that within the same external environment, it is possible to have varying levels of firm dynamism and still to be able to maintain competitive advantage, without necessarily aiming for organisation-environment fit. This thesis contributes to the debates about the development and evolution of organisational capabilities by providing empirical support for the proposition of Zollo and Winter (2002) that there is a relationship between learning mechanisms and capabilities. As a result, it provides alternative insights into the genesis of organisational capabilities and the consequences of learning processes.

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CHAPTER 1
INTRODUCTION

My journey started when I began my Masters degree in Business Administration, back in Turkey. Being a recent graduate of social and political sciences, I knew nothing about management theories but I wanted to work on subjects that had some degree of practical implications, on subjects that people that I met on a daily basis could resonate with. But, to my surprise (and also partly to my disappointment), as was the case in political sciences, I saw that there was a non-negligible discrepancy between what is 'known', in so-called "Model I" knowledge terms (see Gibbons et al., 1994) about management, and what in practice happens within organisations. One of the most fundamental arguments reiterated by all lecturers during my Masters was that, in the global economy, where economic activities can be conducted more cheaply in low-wage economies such as China, managers have to orchestrate their resources in an efficient way and use effective competitive strategies. We, as future managers, were expected to embrace major management theories and learn prescribed managerial tools, because making use of these theories and tools was, in practice, the main way, possibly the only way, to achieve successful competitive performance. A wide range of prescriptions were on offer, ranging from the BCG Matrix to Porter's Five Forces, from the 4Ps to the 5Cs of marketing.

Despite the pervasiveness of these theories and tools, and the power of advocacy for their usefulness and indispensability, I doubted that most managers would draw upon and use those academic frameworks and prescriptions. Some managers might well be unaware of the relevant literature, and some might be aware of it and opposed to it – or indifferent to it. But however the gap between academic rhetoric and organisational practices originated, there was incontestable evidence around me that firms which did not draw upon available management knowledge were equally successful in maintaining competitive performance in the face of increasing globalisation, growing competition and advancing technology. By way of example, the small firm that my father works at would, no doubt, be found to be 'badly managed' according to existing theories of management, which are predominantly developed for either large

companies or entrepreneurially-led Western firms. And yet that firm has been the market leader in Turkey for over 20 years and is successfully doing business with the United States and the United Kingdom, despite the competition from China. Juxtaposing theories of management and competition with the insights that my personal experiences provided, an important contradiction emerged. When I first noticed this discrepancy I did not have a specific research interest, but I knew that this gap between academic rhetoric and organisational practice would be the departure point for my doctoral research. I wanted to adopt a different approach to management research; I wanted to seek answers to my research questions by listening very closely to practising business people who were personally grappling with issues of competition, innovation and organisational change. Thus, this thesis derives from the exploration and subsequent interpretation of the real lives of six organisations with a focus on how they renew and adjust themselves in order to survive and compete in changing business environments.

As the next chapter will reveal in more detail, there are some things which are already known or accepted about the competitive challenges to organisations. First, organisations are faced with increasingly intensive competitive pressures. A string of interconnected forces compel attention to be focused on external challenges: hyper-competitive global competition, rapidly changing technologies, the proliferation of new entrants into existing industries, deregulation, shorter product life cycles, and discerning customers who impose apparently conflicting demands regarding uniqueness, speed of delivery, quality, price, performance, and so on. Second, in order to ensure their competitiveness, and even survival in the face of intense competition, organisations are forced to behave in different ways: to rearrange certain priorities, to (re)allocate resources, to adjust organisational processes and practices, to try to change organisational cultures, and to respond in a number of other ways which are deemed appropriate. Third, some organisations can sustain themselves on a high-efficiency or fast-follower basis; but, in turbulent environments, many will find themselves vulnerable if they do not have the capacity to renew the organisation and its capabilities so as to be consistent with changing environmental demands. Thus, part of the challenge of achieving and sustaining competitive advantage lies in "timely responsiveness and rapid and flexible product innovation, coupled with management capability to effectively coordinate and redeploy internal and external competences"

(Teece et al., 1997: 183), which they refer to as "dynamic capabilities". Moreover, to some degree, firms' capabilities are influenced and shaped by prior experience. In other words, dynamic capability is a path-dependent concept that is enhanced or hindered by the learning which precedes it. This takes us to the fifth and last point. On top of the managerial challenge to renew and redeploy a firm's internal capabilities, sustaining competitive advantage via the development of dynamic capabilities requires paying attention to organisational learning – the ability of each organisation to learn faster than its rivals (Easterby-Smith et al., 1998).

There is a vast literature on competitive advantage and organisational capabilities and its dynamic relationship with organisational learning. It can be segmented in various ways, as the next chapter will illustrate. For example, contributions have been made from economics, strategic management, organisational analysis and other perspectives. Most of the studies within these multiple traditions have adopted a positivist stance. That is to say, they treat a firm's resources and dynamic capabilities as dependent variables and seek to draw out and identify a series of independent variables in order to explain patterns of resources and capabilities and degrees of competitive advantage and innovation. Despite significant interest in the topic in both the academic and business worlds, again, as the next chapter will show, the body of literature contains studies of organisational capability within the context of meaning, knowledge and understanding of the organisation as a key unit of analysis. I read more around firm competitiveness under contemporary conditions and innovation, which is widely proclaimed as one of the most vital drivers of economic competitiveness. As I did so, I became committed to exploring the dynamics of the relationship between organisational renewal and learning processes within the context of non-Western medium-sized enterprises. I sought to understand better how firms respond to competitive challenges and what can be discerned from the answers of participant firms. This should offer a clearer understanding of the nature of organisational capabilities and the process through which they are developed and renewed.

It is important to note that my attempt is rather oblique and outside the mainstream. The path followed in this thesis is one which, curiously, has been neglected by most conventional accounts of organisational capabilities. This thesis takes a critical look at the concept of organisational capability and approaches it in such a way as to observe

the organisational and managerial context within which it is situated, from an enactment perspective. For the purposes of this research, an enactment perspective suggests that the environment is a function of our perceptions, and no external reality exists independent from our assumptions, perceptions and interpretations. Thus I seek to develop an enactment-based understanding of the concept by looking at the ways managerial interpretations and perceptions of their external environment influence how organisations actually engage with dynamic capabilities as a means for capability development and renewal. At this point, it is also important to note that I adopt Helfat et al.'s (2007:1) definition of dynamic capabilities; "the capacity of an organisation to purposefully create, extend and modify its resource base". In this definition, the term "dynamic" refers to the change and renewal of the resource base of organisations.

The issues of *assumptions* and *enactment* remain an unexplored 'black box' at the very heart of *the relationship between capability and the organisation.* The focus is no longer on capability, but on capability with respect to a particular organisation operating in a specific context. I investigate what capability involves from an organisational angle in relation to the external environment; and I examine what representations are most suitable to encapsulate the content and process of organisational capabilities when an enactment perspective is adopted to represent the value-laden, context-based and variable nature of the concept. The thesis presents organisational capabilities as a phenomenon which arises not only through external factors and internal resources but, more importantly, through managerial enactment, organisational mindsets and learning mechanisms. This suggests that organisational capabilities are a dynamic and emergent concept which is a function of the interaction of a multitude of organisational antecedents. Central to an understanding of how capabilities develop and evolve within an organisational context is a conceptualisation of the organisation's *learning process.* The research does not purport to produce a definitive conceptualisation of the nature or process of organisational capabilities, such a task is beyond the scope of any one study. The key aim of this research is to develop an interpretive understanding of the endogenous and exogenous challenges facing organisations, particularly the organisational learning and capability development outcomes that arise from facing up to these.

In this context, the starting point involves understanding and analysing the organisational accounts of experiences encountered in identifying the need to develop and renew capabilities and practices. I employ a six-case comparative research design in order to gain access to those accounts. The six participating organisations operate in three industrial settings, with varying levels of industry dynamism; and all six of them have been successful in their respective businesses for over 25 years. The six cases are also matched pairs, meaning that while one firm from each sector is identified as an *innovator*, sustaining its competitiveness through technological and managerial improvement and (re)development, the other is an *adapter,* in the same industry, with a successful but more stable business history. This research design enables me to understand better the nature and content of organisational capabilities in innovator firms when compared with adapter firms, and to discern patterns from analysis made across industries with varying levels of market dynamism. It also allows for differences and similarities to emerge in the processes and practices of capability development. For each firm, I engage with assumptions, interpretations, descriptions and reflections of organisational members; this involves inductive theorising from field data. I chose inductive theorising because it facilitates the development of an alternative conceptualisation of organisational capabilities through a continuous dialogue between theory and data. As a result, this process ensures an incremental development of the argument and rigorous theorising.

I found that capability development is not only subject to objective environmental dynamism, as Eisenhardt and Martin (2000) and Zollo and Winter (2002) suggest, but that managements' perceptions of stability or dynamism in the environment, organisational knowledge orientation and attitude towards change and learning, enact a distinctive set of organisational capabilities. The variety of organisational capabilities discussed throughout this thesis suggests that within a particular industry there is a range of strategic postures that can lead to success. More importantly, a central finding was that despite the variations within organisations, a definite patterning can be discerned. This allows a contrast between, on the one hand, a set of organisations which, overall, are experienced as *innovators* and driven by an aspirational *innovating to learn* mindset, and organisations which, on the other hand, are experienced as *adapters* driven by an adaptive *learning to innovate* mindset. In the main, the range of capabilities chosen to be developed by managers facing the same

external environment builds up the case for the *idea of envelopment* to replace the idea of alignment; this suggests that it is possible to have varying levels of firm dynamism, leading to varying capability levels, within the same external environment, and yet still be able to maintain competitive advantage. Notably, by analysing inter-industry evidence, it became clear that the width of the envelope for firm dynamism available to management correlates with 'objective' environmental dynamism, which is enacted by the cumulative actions of other firms in the same industry.

The thesis builds up the case for a process of capability development and argues that there is a patterned relation between the level of the capability to be developed and the approach to develop it. In investigating the processes of building capabilities, this thesis integrates an organisational learning perspective into capabilities research, which is in line with the recent suggestions of scholars working in the field of organisational capabilities (Ambrosini et al., 2009; Easterby-Smith et al., 2009, Teece, 2011; Zollo and Verona, 2011). In order to investigate the capability-building processes in participant organisations, the thesis applies the concept of *organisational learning mechanisms*. Apart from establishing the nature of structural contexts that are suitable for particular capability development practices, the organisational learning mechanism concept illustrates the social and cultural context that is conducive to productive organisational learning. The approach followed in this thesis suggests that organisational learning is not a distant vision but is rather a part of everyday activities. The prosaic nature of these concepts does not mean that they are easy to achieve; the claim that all organisations learn does not mean that all organisational learning is equal. In describing the structural and social facets of organisational learning mechanisms that are conducive to extensive organisational learning, this thesis identifies three central elements: rules and procedures, co-creation of knowledge, and valuation of knowledge by senior management. A clear link is found between an organisation's attention to these three elements, its learning investment, and the level of capability to be developed. Moreover, regardless of the nature of organisational life, the same patterned relationship between the structural, cultural and social facets, and high-quality organisational learning, repeats itself across different industries, maintaining the divergence between *adapter* and *innovator firms*. The thesis further suggests that when supported by proper capability development processes and

organisational learning mechanisms, by attending to the three central elements listed above, it is possible for firms to alter their capability level.

The central themes which have been identified in this introductory chapter find more detailed expression in the remainder of this thesis, which is organised into seven chapters. Chapter 2 represents a two-part examination of the various literature surrounding the phenomenon of organisational capabilities and organisational learning. In so doing, it finds gaps in existing theories, reveals how this thesis sits alongside previous research into this phenomenon, and focuses further on the research questions. Chapter 3 lays out the ontological and epistemological grounds of this research and illustrates the usefulness of operating under a constructivist paradigm when committed to a phenomenological naturalistic inquiry. It also details the research strategy guiding the research design considerations and the data collection and analysis processes. This framing permits an analysis of the ways organisational capabilities unfold in organisations and, as a result, enables critical observations around current theorising to be made. Chapter 4 introduces and provides an overview of the six participating organisations by outlining the data collected for this research, with a concentration on learning and innovation related incidents, before embarking on the analytical process. Chapter 5 is the first of the two chapters that present the interpretive findings from the research. It seeks to capture the nature of organisational capabilities observed in the participating firms through the re-conceptualisation of the relationship between the environment and the organisation. This chapter introduces an enactment perspective on the study of organisational capabilities and argues that in order to understand the content and process of organisational capabilities, one must explore endogenous factors, such as knowledge orientation, managerial aspirations and assumptions about the environment, as much as exogenous environmental factors. Chapter 6 works towards a deeper understanding of the process of capability development and suggests utilising the concept of organisational learning mechanisms to reconcile the cognitive and structural as well as contextual and social dimensions of organisational learning. It explores the dimensions of complexity surrounding high-quality learning and introduces some emergent dimensions and contexts of these high-quality learning events that produce *organisational* learning outcomes. The chapter concludes that organisational learning has a distinct and important social and situated nature as well. The final chapter, Chapter 7, brings together the primary issues

identified and conclusions drawn during the research, thereby working towards a conceptualisation of organisational capability and learning for capability development. The first part of the chapter focuses on the central role of *learning mindsets* that surround the interactive and inextricably linked organisational processes of organisational learning, capability development and organisational enactment. The remainder of the chapter is devoted to summarising the contributions of this thesis, though it also highlights research issues that may require further theoretical development and empirical research; and, of equal importance, it discusses the implications for practising managers.

CHAPTER 2
THEORETICAL BACKGROUND

2.1. Introduction

This chapter presents a two-part examination of the literature that surrounds the study of organisational capabilities and learning. The aim of this chapter is to understand the key contributions of the dominant literatures or perspectives that have strongly influenced the development of organisational capabilities and organisational learning as academic fields of study. More specifically, the first part of the chapter analyses three important 'schools of thought' – described here as the 'objective', 'perceived' and 'enacted' environment models. Throughout Section 2.2 I will be discussing these three dominant research streams that have been influential in defining the legitimacy of much research within the field of organisational capabilities and competitive advantage. More specifically, there is an overview of industrial economics theory's perfect competition model, resource-based theory and the dynamic capabilities perspective. As the discussion will illustrate, particular attention is devoted to the description and discussion of the dynamic capabilities perspective, since most of the recent scholarship attends this particular school of thought (Ambrosini et al., 2009; Easterby-Smith et al. 2009). The last part of Section 2.2 illustrates why the development of an enactment perspective of capability development may aid our understanding of the complex interaction between the individual, the firm and the environment.

The purpose of the second part of the literature review is to demonstrate that the important relationship between organisational learning and capability development remains a poorly understood aspect of organisational capabilities. As the discussion at the beginning of Section 2.3 will illustrate, integrating a learning perspective is important to building a more holistic picture of organisational capability that encompasses the entirety of capability development experience. In the light of this argument, the discussion will then move onto a more detailed exploration of the nature of organisational learning. It will analyse organisational learning theorising in terms of

various explanations provided by researchers in response to the question of "how do organisations learn?". In so doing, I will illustrate that there are two main research streams underpinning all learning research to date – labelled the 'acquisition metaphor' and the 'participation metaphor'. The last part of Section 2.3 is concerned with developing an alternative research approach to the study of organisational learning experience, namely the suggestion of bridging the two metaphors; this will include the introduction and examination of a concept that will help me to realise this integrative attempt.

Before this analysis begins, it is important to locate organisational capability in context and to comprehend why it continues to gain acceptance as an antecedent of competitive advantage as a means of organisational change and adaptation. In particular, it is necessary to understand the significance of the prolific changes in the conceptualisation and examination of the concept that have occurred in recent decades.

2.2. Organisational Capabilities

One of the primary assumptions of the management literature is that companies face competition and need to adapt and change to achieve competitive advantage and facilitate organisational development in line with their competitive environment. A major debate within organisation theory is concerned with whether this competitive environment is an objective or a perceptual phenomenon. The way the environment is modelled has direct implications on how the relationship of the company to its environment is viewed and, consequently, entails how a company can gain an edge over its rivals. While the objective environment model is preferred by neo-classical economists, behavioural economists and evolutionary economists adopt the perceived environment model in their discussions of sustained competitive advantage. An overview of the two traditions for modelling the environment will first be presented, and theoretical perspectives concerning the concept of competitive advantage and organisational development will be examined in Sections 2.2.1 and 2.2.2. In Section 2.2.3, a third view to model the environment will be presented, namely the enacted environment model, and the implications of this view for competitive advantage and

organisational development will be discussed. The chapter will go on to illustrate why the development of a learning perspective for organisational capabilities may aid our understanding of the interaction between a company and its environment and help explain the variation in degrees and qualities of organisational capabilities developed for adaptation.

2.2.1. The Objective Environment Model

The objective environment model assumes that an *organisation* is embedded within an *environment* which is in turn constituted by a set of external forces that the organisation has little or no control over. The environment is seen as something real, material and external to the organisation, with independent and objective qualities. The key to competitive success, then, is to look at the environment, find things that are already there and waiting to be found, consider the information acquired from the environment, analyse and evaluate information without mistakes, and take the necessary organisational actions to align the company with the environmental demands. An organisation enjoying perfect information about the environment and decision-making is based on notions of rational agent and profit maximisation.

These are the assumptions underpinning many well-known and widely-used strategic management tools. For example, SWOT analysis shares the very same assumption of an independent objective environment which is external to the organisation. A SWOT analysis clearly demarcates the environment and the organisation by defining the strengths and weaknesses inside the organisation, and the opportunities and threats presented by the external environment to the organisation. The organisation has no control over opportunities and threats, the only thing that a manager can do is to utilise internal strengths in order to seize opportunities and pass up threats or minimise internal weaknesses to avoid threats. Similarly, in Porter's Five Forces Framework, industry structure is given exogenously; the task of management is to pick an attractive industry and position the organisation within that competitive landscape by thoroughly analysing the information about suppliers, buyers, substitute goods and competitors (Teece, 2007).

These assumptions, shared and advocated by neoclassical economists, present a very simple and manageable treatment of organisational resources and capabilities. Teece (2011) argues that neoclassical economists assume that capabilities are neutral, and hence these issues are not problematised by those researchers. The restrictive assumption of perfect information leads these researchers to view the acquisition of new knowledge and the adoption of organisational activities as a mechanical information processing procedure and a matter of organising the economic activities of the firm. Since organisations possess all the knowledge appropriate for relevant economic and strategic decisions, no issue of capability arises. But firms do differ in their level of success in developing and adopting new products, new production processes and new organisational forms, which are key competitive activities. The very essence of the field of strategic management is built on the recognition that firms are different (Teece, 2011), and that these inter-firm differences in competitive performance suggest that the organisation's internal structure does matter and is what drives performance differences across firms within an industry.

In trying to explain this observed diversity in firm performance, researchers can be grouped into two streams (Dosi and Marengo, 1994). One stream of researchers suggest that firms' environmental alignment performance differs simply because the information used to organise the economic activities of the firm is wrongly derived from the objective data acquired from the environment. If this were the case, inter-firm differences should be a temporary and unsystematic phenomenon. The persistence of competitive asymmetries between firms is not explained by this kind of account. Another stream of researchers accounts either for (1) different endowments in some organisational skills or (2) information asymmetry among firms. The main arguments of these explanations can be summarised as follows. Organisations are highly bound by their 'endowments'; i.e. by their inner features (analogous to genes or the inborn predispositions of individuals that determine their capacity to perform certain activities) which are inherent. The 'inherently best' firm persistently emerges as the best performer in the market. The 'asymmetric information' explanation claims that organisations face asymmetric access to information and give different performances because the information to be processed by firms is not identical.

Irrefutably, asymmetric information does exist and it makes sense to assume that access to information is not equally distributed among firms competing within the same industry. But an explanation based on asymmetric information assumes that firms will exhibit better competitive performance as the information that they can access from the environment becomes more perfect and more complete. However, an organisation's competitive performance does not necessarily increase as its information gets better. Sustainable competitive advantage requires both access to the information about internal and external developments and also the ability to filter this information and to recognise, sense, seize and shape these developments (Teece, 2007). Similarly, asymmetric organisational endowments are significant in accounting for and recognising the centrality of firm-specific factors for competitiveness. But the explanation posed by this stream of researchers assumes that endowments are immune from change and are not subject to learning since they are inherent. However, firms do become more competent in competing within an industry and they can improve their position in the market, regardless of competing firms' performances. Thus, firm competitiveness cannot be reduced to inherent endowments, since the improved competitiveness of firms over a period of time suggests the existence of fundamental elements of training and learning.

As illustrated in this section, mainstream economic theory fails to explain the heterogeneity that exists amongst firms, even in the same industry. Teece (2011), along with other researchers (e.g. Barney, 1991, 2001; Eisenhardt and Martin, 2000; Priem and Butler 2001a; Winter, 2003; Zahra et al., 2006; Zollo and Winter, 2002), advocates that organisational capabilities are what explains how firms actually perform the tasks that underlie productive competence, and why some firms can augment it in value-enhancing ways while others fail to maintain sustainable competitive advantage. In the next section, contributions of particular relevance to a 'new' theory of the firm will be discussed.

2.2.2. The Perceived Environment Model

The perceived environment model, as was the case with the previous model, assumes a real and independent environment which is external to the organisation. The

difference between the two models lies in the way in which the individual agent (who is the member of an organisation) is characterised. While the objective model assumes that organisational members are capable of acquiring perfect information from the environment, and can process and analyse that information flawlessly and then act accordingly, the perceived environment model involves organisational members who are trapped by "bounded rationality" (Simon, 1991). Thus, from this perspective, the real external environment is out there, waiting to be discovered; but because of the limits on human rationality the environment is imperfectly and incompletely perceived and so these 'perceptions' or 'representations' of the environment embody organisational members' knowledge about the environment in which their firm is operating, their "models of the world" (Dosi and Marengo, 1994). When applied to firms, this perspective assumes that, unlike the traditional perspective of neoclassical economists, firms are unable to gather all the relevant information from the environment and to analyse the information and calculate their expectations perfectly. Firms are heterogeneous entities and the search for and processing of information are inherently biased (Pierce et al., 2008). Firms read the external environment through an organisational filter, resulting in imperfect environmental matching (Pitelis, 2007). Contrary to the idea of endowments, these organisational filters are not inherent; they can be constructed, evaluated and modified in an attempt to minimise the gap between imperfect perceptions and the real environment. This suggests that firms' competitive performances are not uniquely determined by a given exogenous environment; on the contrary in fact, firms are viewed as proactive organisations that can improve their understanding of the reality of their environment (Simon, 1976 cited in Dosi and Marengo, 1994). Although, in the objective environment model, competitive advantage is ascribed to the characteristics of the external environment, in this model the firm's inner features such as competencies and resources are introduced to the competitive advantage framework. In other words, organisations have modest control over the environment when compared to the objective environment model. In connection to that, the organisation's information processing capabilities and organisational knowledge used in guiding actions are not presupposed or delivered by the environment but emerge and evolve from the inner features of the organisation as it responds to its environment.

This view of the firm as adaptively rational goes back to the works of Cyert, March, Nelson, Winter and Penrose – it is often referred to as the behavioural theory of the firm or evolutionary economics – and has been of importance to the resource-based view of the firm and dynamic capabilities. Before turning our attention to these, let us briefly consider an overview of the main theoretical assumptions of the behavioural theory of the firm.

Cyert and March (1963: 1) argue that a behavioural theory of the firm requires attention to the "internal operations of the firm". In order to understand how a firm functions and how economic and strategic decisions are made, one should focus on its organisational goals, expectations, behavioural rules, and procedures and routines. Cyert and March do not assume that firms are able to gather all relevant information from the environment perfectly and analyse it flawlessly. Thus, firms are heterogeneous entities without perfect knowledge (Pierce et al., 2008). What a firm knows is stored in its behavioural rules and is reinforced or changed via the implementation of those rules (Dosi and Marengo, 1994). Modelling of the firm as a behavioural entity focuses on the firm's experience, memory and learning (Pierce et al., 2008). "Concerning learning and innovation, behavioural theory of the firm attaches significance to the concept of problemistic search. Search can be induced by problems, and lead to the finding of solutions" (Pitelis, 2007: 480). This focus on firms as problem-solvers is significantly different from the neoclassical assumption. The neoclassical economists propose that firms are reduced to information gathering entities and, by assumption, are internally adjusted. Thus their problem-solving rules and routines are in place. In contrast, the behavioural theory of the firm, as already pointed out, argues that organisational decisions and actions take place within the space of representations, and so merely gathering information from the environment is not enough to solve problems and does not guarantee better competitive performance. Learning is required to select, modify, delete or add information handling and problem-solving rules for the specification of routines to accomplish organisational tasks (Pierce et al., 2008). The focus on adaptation and learning induced by problems and crises provides a revolutionary alternative to traditional theorising of the firm, but it does have its weaknesses. Williamson (1999: 14) notes that, in Cyert and March, "the firm resembles a fire department more than a strategic actor". The firm is seen as focusing on finding solutions to immediate problems. This prediction introduced the

question of how to achieve sustainable competitive advantage. Learning facilitates the reinforcement or modification of organisations' representations but, if learning is focused on solving short-term problems and responding to emergent crises, how can firms attain better performance in the long term? These questions were overlooked in the early work on behavioural theory of the firm, but the knowledge-based theory of the firm, which is discussed later in this section, provides an answer to that.

2.2.2.1. The resource-based view of the firm

With the aid of Cyert and March's recognition that firms are heterogeneous, the resource-based view (RBV) was developed by Barney (1991), Peteraf (1993) and Wernerfelt (1984) and expanded by Helfat and Peteraf (2003), among others. The RBV attempts to explain why some firms outperform others and are able to create a privileged market position for themselves (Grant, 1996; Lado and Zhang, 1998). It portrays firms as a unique bundle of tangible and intangible assets, idiosyncratic resources or capabilities which are the determinants of firm performance (Barney, 1991; Grant, 1996). The essence of RBV lies in its emphasis on internal firm resources and the capabilities for lasting sustainable competitive advantage.

RBV makes two main assumptions. First, it assumes that resources and capabilities are heterogeneously distributed across firms and that this heterogeneity persists over time (Ambrosini and Bowman, 2009; Eisenhardt and Martin, 2000; McKelvie and Davidsson, 2009; Wang and Ahmed, 2007; Wernerfelt, 1984). According to Barney (1991), resource heterogeneity signifies that resources are distributed unevenly across firms and that different firms possess different bundles of resources. Taking the meaning of this term one step further, Peteraf (1993) suggests that resource heterogeneity also implies that some firms have resources that generate more value than others. Secondly, resources and capabilities can become a source of sustainable competitive advantage when they are valuable, rare, inimitable and non-substitutable – i.e. VRIN (Peteraf and Barney, 2003). Valuable resources can be used to exploit opportunities and to neutralise threats in the environment; rare resources are in limited supply across firms; inimitable resources are difficult to replicate by competitors and

non-substitutable resources are those that cannot be replaced (substituted) by other resources (Lockett et al., 2009).

Nevertheless, to benefit from these resources, they must be properly managed (Sirmon et al., 2007). Sirmon et al. (2007) offer a detailed conceptualisation of how resources should be managed in order to maintain competitive advantage or sustain a current position of competitive advantage. As such, RBV gives a substantial role to managers' strategic decisions involving acquiring and deploying resources that will secure a firm's advantage over its rivals. Hence, it is not the resource type *per se* that matters, rather it is the functionality of the resource and how the resource is used and combined with other resources (Peteraf and Bergen, 2003). Organisational survival and sustainable competitive advantage are a result of managerial proactiveness, something which is not accounted for in neoclassical economics or in industrial organisation economics. As discussed in the previous section, neoclassical economics and industrial organisation economics have made substantial contributions to analysing a firm's optimal response to its external environment but, in their deterministic models, it was simply impossible for firms to influence industry conditions or their own performance (Lado and Zhang, 1998). In these early theories of the firm, managers' roles are responsive; in contrast, managers in RBV are both adaptive and reactive (Lockett et al., 2009). Finally, RBV is path-dependent – history matters. "Firm resources are developed through competition in markets, and so the markets in which the firm competes today, and the way in which it competes, will be the most important determinants of that firm's resource base tomorrow" (Lockett et al., 2009: 23).

RBV has developed a series of important insights that seek to explain the relationship between a firm's resource endowment and its market performance. However, it has a number of methodological and practical limitations which have been criticised by subsequent scholars. First, and perhaps most fundamentally, is the issue of tautology. RBV is prone to circular reasoning (Lockett et al., 2009) since VRIN resources are identified a posteriori by observing high-performing firms. Priem and Butler (2001a, b) debate this point at length in an exchange with Barney (2001). The identification and measurement of VRIN resources are problematic, since they are imperfectly observable (Lockett et al., 2009). Competitive advantage is considered to be rooted in

intangible assets, such as firm-specific knowledge and organisational learning, which are commonly unobservable (Ambrosini and Bowman, 2001). Foss and Knudsen (2003) point out another methodological limitation of RBV. Since there is no agreement on the definition of competitive advantage, RBV researchers equate competitive advantage with performance; this implies that the resources which lead to improved company performance generate competitive advantage, and that no factor other than a firm's resources can account for its competitive advantage. Apart from the measurement challenges in operationalising concepts and choosing proxies for testing RBV hypotheses (Lockett et al., 2009), another challenge for RBV researchers is to answer 'how' questions – e.g. how can valuable and rare resources be obtained? – so that meaningful conclusions can be drawn for practising managers (Priem and Butler, 2001a).

The RBV perspective has been considered as static and deterministic. This is partly a consequence of the issue of tautology presented above. But it is also closely related to implicit assumptions that RBV holds about product markets. First of all, in order to drive meaningful inferences about sources of competitive advantage, RBV assumes that product markets are homogenous and immobile (Priem and Butler, 2001a). This is a problematic assumption because, first of all, the central thrust of RBV is that any firm's competitive advantage is rooted in its unique combination of resources (Lockett et al., 2009). So if firms' resources are heterogeneous, and if the markets where firms compete are determined by firms' resources and how they use those resources (Lado and Wilson, 1994), then it follows that product markets cannot be heterogeneous, let alone mobile. Secondly, and more importantly, the degree of value held by each resource is determined by the market environment (Priem and Butler, 2001a). As the value of resources is determined exogenously, this implies that as the environment changes, so resource values may change. In order to predict the outcomes of resource-based analyses of competitive advantage, RBV keeps product and customer factors stable and demand unchanged (Priem and Butler, 2001a). Peteraf and Barney (2003) openly admit that RBV assumes an immobile market environment and justify this underlying assumption by reiterating that RBV is fundamentally a firm-level analytical tool and it does not fall within the remit of RBV to analyse the macro environment:

> [RBV] takes the product market conditions as given and assumes that there are no frictions in that realm. It does so for the purposes of sharpening and facilitating its own special focus. Similarly, [RBV] does not consider other external environmental forces or the nature of interactions among multiple actors. Once again, it holds constant all of these other factors, assuming frictionless competition outside its own narrow realm. In essence, it operates under a set of *ceteris paribus* assumptions. (p. 313)

Nevertheless, these simplifying assumptions about the market environment generate hypotheses which are certainly dubious for practising managers in the context of changing environments characterised by increasing volatility and unpredictability (Eisenhardt and Martin, 2000; Wang and Ahmed, 2007). Recently, scholars have extended the resource-based view to dynamic markets whose contributions are presented in the next section.

2.2.2.2. The dynamic capabilities perspective

The methodological and practical difficulties of RBV research and the limitations presented by its approach have prompted the development of many sub-fields as areas of study, including the competency-based perspective, the knowledge-based view and dynamic capabilities. Since the dynamic capabilities perspective has attracted great interest and has led to a conceptual upheaval in the study of organisations and competitive advantage, this section is devoted primarily to the discussion of this particular approach; also, the competency-based perspective and the knowledge-based perspective will be introduced very briefly.

The competency-based perspective extends RBV research by providing an integrative framework of distinctive firm competencies for sustainable competitive advantage, such as organisational culture, reputation, innovation, physical output, a firm's network, managerial competencies and other core human assets (Lado et al., 1992). It presents an alternative conceptualisation of RBV and links four firm-specific distinctive competencies – managerial, resource-based, transformation-based and output-based – which allows for a holistic resource-based theory. The knowledge-based view focuses on knowledge as the most valuable resource in the company. It suggests that knowledge assets, such as technical and organisational know-how, are what support a firm's competitive position, since they enable firms to differentiate

themselves positively from their competitors (Teece, 2011). This theory has emerged in the literature as a continuation and extension of the resource-based view, recognising the importance of knowledge in organisational processes and receiving great support from researchers (Miller and Shamsie, 1996). The way the organisation creates and uses knowledge can be the key to achieving sustainable competitive advantage over time, and the creation, integration and application of knowledge to the production of goods and services have become the primary role of firms (Grant, 1996). Therefore, how managers use resources related to knowledge largely determines the performance of the organisation (von Krogh, 1998).

Sustained competitive advantage based on resources has been seen as unlikely in dynamic markets, since the static representation of resources does not take account of market dynamism (Eisenhardt and Martin, 2000; Priem and Butler, 2001a, 2001b). Competitive environments require a dynamic formula that allows for the constant renewal and alignment of these resources (Teece, 2007). Consequently, Teece et al. (1997) posited the dynamic capabilities framework to address that gap. Although they had previously attempted to introduce the concept of dynamic capabilities (Teece and Pisano, 1994), it was their 1997 article that attracted considerable attention to the then new concept within the management literature (Barreto, 2010). Teece et al. (1997) explicitly argue how the dynamic capability framework could overcome the limitations of RBV and develop a concept to fill the gaps in theories that attempt to explain competitive advantage via internal (e.g. Wernerfelt, 1984; Barney, 1991) or external factors (e.g. Porter, 1981). Dynamic capabilities consider the changing nature of the external environment and propose an evolutionary conceptualisation of resources and capabilities to adapt and reintegrate towards a changing environment (Lavie, 2006). From the evolutionary perspective of Nelson and Winter (1982), a competitive advantage that is always based on the same basic capabilities is not sustainable over time, as external agents will weaken those capabilities. Consequently, dynamic capabilities are those that can generate new capabilities that allow for sustainable competitive advantage.

As a result, dynamic capabilities are now considered to be an extension of RBV (Ambrosini and Bowman, 2009; Ambrosini et al., 2009; Barreto, 2010; Bowman and Ambrosini, 2003; Easterby-Smith and Prieto, 2008; Macher and Mowery, 2009). Like

RBV, the dynamic capabilities framework focuses on issues such as competencies and competitive advantage. In contrast to RBV, the dynamic capabilities framework focuses on the firm's ability to face up to rapidly changing environments, in order to create and renew resources and change the resources mix (Ambrosini and Bowman, 2009; Bowman and Ambrosini, 2003; Teece et al., 1997). Hence, the dynamic capabilities framework has added value to the RBV argument as it transforms what is essentially a static view into one that encompasses competitive advantage in a dynamic context (Ambrosini et al., 2009; Barney, 2001a, 2001b); and it describes how firms learn to adapt their internal and external skills, resources and processes to shifting market conditions in pursuit of competitive advantage.

It is timely to note that, while the dynamic capabilities framework explicitly focuses on the issue of dynamism, some articles central to RBV have dynamic elements as well. Sirmon et al. (2007) developed a dynamic approach to replace the static approaches used in most previous research on RBV and highlight the importance of accumulating, divesting, stabilising, enriching, pioneering and leveraging resources to provide the flexibility needed by the firm to respond to environmental changes. They argue that the management of a firm's resources increases the firm's ability to create value, even under conditions of high environmental dynamism. Helfat and Peteraf (2003) suggested a dynamic resource-based theory; they introduced the concept of capability lifecycles, inspired by Wernerfelt's (1984) observation that products and resources are two sides of the same coin. Just as products have lifecycles that follow a pattern of growth, maturity and decline, so capabilities have development paths as well: founding, development, maturity, retirement, retrenchment, renewal, replication, redeployment and recombination stages.

The dynamic capabilities framework calls for distinguishing between resources and capabilities. As such, resources refer to tangible and intangible assets that an organisation owns, controls and uses as input to production (Barney, 1991), while capabilities refer to the ability of an organisation to utilise organisational resources in order to perform a set of tasks that are critical to competitive advantage (Helfat and Peteraf, 2003) and to processes that facilitate the accumulation, development and deployment of resources (Amit and Schoemaker, 1993). Zahra et al. (2006) define dynamic capabilities as processes to reconfigure resources and operational routines.

Similarly, Helfat et al. (2007: 1) define dynamic capabilities as "the capacity of an organisation to purposefully create, extend and modify its resource base". These resources can include human capital, including the skills of managers and employees, facilities of production and distribution, and other technological capital and knowledge-based capital (Chandler, 1990; Easterby-Smith et al., 2009). As Easterby-Smith et al. (2009) note, this definition is precise enough to be studied as an identifiable specific organisational process, yet broad enough to allow research to investigate the nature of the concept from different perspectives. Makadok (2001) identifies two key features that distinguish a capability from other types of resources. Firstly, a capability is firm-specific, since it is embedded in the firm and its processes, whereas an ordinary resource is not. Because of this embeddedness, the ownership of a capability cannot easily be transferred from one firm to another without also transferring ownership of the firm itself, or some sub-unit of the firm. If the firm were to be completely dissolved, then its capabilities would also disappear, though its resources might survive in the hands of a new owner. Secondly, the primary purpose of a capability is to enhance the productivity of the firm's other resources. They determine the speed at, and the degree to which, the firm's resources can be aligned and realigned to meet or beat the competition (Teece, 2011).

As such, resources map well onto firms' operational capabilities, which enables firms to "earn a living by producing and selling the same product, on the same scale and to the same customer population" (Winter, 2003: 992). These resources help sustain technical fitness (Helfat et al., 2007), meaning that the resource performs its function, regardless of whether it enables the firm to be competitive in relation to the external environment. But competitiveness is context-dependent, and thus the technical fitness of resources is not enough to ensure competitive performance. The dynamic capabilities framework offers a performance yardstick that accounts for context dependence. Dynamic capabilities are high-level activities that link to the organisational ability to combine and recombine resources to react to a changing competitive landscape and enable a firm to survive and grow in the marketplace. Dynamic capabilities assist firms to achieve to evolutionary fitness (Teece, 2007), enabling the firm to match its capabilities to the context in which it operates (Helfat et al., 2007).

Several authors comment on the types of dynamic capabilities. Collis (1994) proposes four categories of capabilities. The first category is "those that reflect an ability to perform the basic functional activities of the firm, such as plant layout, distribution logistics, and marketing campaigns, more efficiently than competitors" (Collis, 1994: 145). The second category of capabilities concerns the dynamic improvement of organisational activities. The third category of capabilities is specifically about the ability "to recognise the intrinsic value of other resources or to develop novel strategies before competitors [do so]" (Collis, 1994: 145). The fourth category, which is referred to as meta-capabilities, includes "the flexibility to shift between capabilities more efficiently or faster than competitors, or the ability to respond to or initiate radical change" (Collis, 1994: 148) and is needed to outperform competitors in changing industry conditions. Winter (2003) proposes that there are zero-level capabilities (also called operational or ordinary capabilities), first-order capabilities (dynamic capabilities) and higher-order capabilities. Zero-level/operational capabilities are those that allow a firm to earn a living in the present. Whenever the firm implements a change in its operational capabilities it will put into practice its first-order capabilities, the so-called dynamic capabilities (Zollo and Verona, 2011). Similar to Collis' (1994) meta-capabilities, higher-order capabilities operate on dynamic capabilities. He considers higher-order capabilities to be the outcome of organisational learning which creates or modifies a firm's existing dynamic capabilities. Zahra et al. (2006) use a similar typology and suggest that there are substantive capabilities that facilitate the efficient and effective use of existing resources and dynamic capabilities, which are processes that alter that resource base. More recently, Ambrosini et al. (2009) have suggested that there are three levels of capabilities: incremental, renewing and regenerative. While incremental and renewing capabilities utilise and leverage the current resource base, regenerative capabilities are concerned with the adaptation of organisational resources by renewing the firm's dynamic capabilities. As such, regenerative capabilities do not operate directly on the resource base of the organisation; rather, they impact on its incremental or renewing capabilities. They also propose that each level of capabilities will be applied according to the managerial perceptions of environmental dynamism, varying from minor where incremental capabilities are applied, through to major where regenerative capabilities are utilised. Moreover, they argue that incremental capabilities are used almost continuously, while regenerative capabilities are infrequently implemented.

Table 2.1 presents a comparison of the different typologies of levels of dynamic capabilities described above.

Collis (1994)	**Winter (2003)**	**Zahra et al. (2006)**	**Ambrosini et al. (2009)**
First category	Zero-level Operational Capabilities	Substantive Capabilities	Resources
Second category	First-order Dynamic Capabilities	Dynamic Capabilities	Incremental Capabilities
Third category			Renewing Capabilities
Fourth category – Meta-capabilities	Higher-order Capabilities		Regenerative Capabilities

Table 2.1. Typologies of Capability Levels

When presented thus it might seem that the literature on dynamic capabilities suffers from what Dosi et al. (2000: 4) call "terminological flotilla", but the common ground of all these typologies is that while lower-level capabilities refer to the organisation's resource base, dynamic capabilities are about developing the resource base. As such, lower-level capabilities are about competing successfully in the present; in contrast, dynamic capabilities are future-oriented since they are about sustaining competitive advantage in the face of market dynamism (Ambrosini and Bowman, 2009).

The review so far suggests that no matter whatever definition of dynamic capabilities one adheres to, there is a link between dynamic capabilities and competitive advantage. Teece et al. (1997: 515) forcefully argue for an explicit link between the two, saying "we refer to [the] ability to achieve new forms of competitive advantage as dynamic capabilities". Recently, Teece (2007: 1341) has argued that dynamic capabilities are "the foundation of enterprise-level competitive advantage". Using a similar argument to Priem and Butler (2001a), Cepeda and Vera (2007) argue that these definitions are often tautological. Bowman and Ambrosini (2003) suggest that even if there is a link between dynamic capabilities and competitive advantage, this link is not direct. They argue that a VRIN resource base is explicitly linked to firm performance but, since dynamic capabilities are one step beyond resources, their effect on market advantage is indirect. Going one step further, Helfat et al. (2007) and Zahra et al. (2006) take a very different view of dynamic capabilities, arguing that developing dynamic capabilities does not ensure organisational success when seeking to maintain and sustain competitive advantage.

Since the creation of dynamic capabilities requires the accumulation, articulation and codification of knowledge, knowledge management and dynamic capabilities are strongly related concepts (Zollo and Winter, 2002) – as knowledge management processes drive the development, evolution and use of these capabilities (Eisenhardt and Martin, 2000). Organisational practices are also closely related to dynamic capabilities, so organisations are considered to be entities that generate dynamic capabilities, which are strongly rooted in routines and organisational processes and are also conditioned by their history (Ambrosini and Bowman, 2009). Bowman and Ambrosini (2003) suggest that dynamic capabilities comprise four main processes: reconfiguration, creative integration, leveraging and learning. Reconfiguration relates to the modification and recombination of resources, while creative integration refers to the ability of the firm to reintegrate and reconfigure its assets into new resources. Leveraging involves replicating and extending resources into another business unit or a new domain. Finally, learning allows resources to be used more effectively and efficiently, as an outcome of learning by doing and learning curve effects. Teece (2007) suggests that there are even more fundamental managerial and organisational processes and activities that enable the deployment of dynamic capabilities, which includes sensing, seizing and transformation. He explains how firms and their management can sense changes in their environments, seize opportunities as a response to those changes, enhance and, when necessary, reconfigure firms' tangible and intangible assets in order to maintain competitiveness.

In summary, dynamic capabilities can take a variety of forms and involve different activities and organisational processes; but the overriding common characteristic is that they are higher level organisational capabilities which enable the continuous updating of organisational resources and operational routines in line with the knowledge and insights gathered from the environment about customer demands and industry dynamics. Dynamic capabilities impact directly on the resource base of the firm, which in turn impacts on competitive advantage. This impact can be positive, negative or neutral, as the renewed resource base may lead to competitive parity (Helfat et al., 2007) or to failure (Zahra et al., 2006; Ambrosini et al., 2009), notwithstanding Teece's (2007 with Teece et al., 1997) predictions that dynamic capabilities are the source of sustained competitive advantage. The literature identifies some antecedents for the formation and evolution of dynamic capabilities. Typically,

they are the outcome of managerial behaviour and perceptions and learning within the organisation. I address these issues later in the chapter.

I can see several areas which require more attention from researchers in the dynamic capabilities field. The biggest problem, as noted by Ambrosini and Bowman (2009) and Easterby-Smith et al. (2009), is the lack of empirical studies in the field and the dominance of quantitative studies within the limited empirical research carried out. Quantitative studies imply the existence of dynamic capabilities deriving from firm performance data (Ambrosini and Bowman, 2009), but this leads to the problem of tautology discussed above and, moreover, the existence of a direct positive correlation between firm performance and dynamic capabilities is a controversial topic in the literature. Case-based data would enable researchers to accumulate richer descriptions of firms which have sustained competitive advantage in their respective industries over many years, and this kind of data would facilitate an understanding of the content and process of dynamic capabilities independent of performance outcomes. This kind of research, based on field data, would allow researchers to adopt a micro-approach to dynamic capabilities and to obtain data indicating what dynamic capabilities look like in firms, how they are deployed and developed, and how micro-issues, such as context (Ambrosini and Bowman, 2009), managerial perceptions (Easterby-Smith et al., 2009), organisational processes, politics and practice, might impact upon dynamic capabilities. By doing so, we can explore the human side of dynamic capabilities (Zollo and Verona, 2011). There is no full understanding of what dynamic capabilities really are and how they work (Ambrosini and Bowman, 2009), but case-based data, especially multiple case-study research (Wang and Ahmed, 2007), may provide opportunities to extend the understanding of dynamic capabilities and develop a contingency theory of them. It would also be epistemologically interesting to see to what extent the concept can withstand qualitative scrutiny.

Easterby-Smith et al. (2009) note that researchers should embark on appropriate empirical research to investigate the creation, deployment and evolution of dynamic capabilities in not-so-dynamic industries, including more traditional industries or other countries with different market conditions. Clearly, the use of dynamic capabilities is greater in dynamic environments, but equating the presence of dynamic capabilities with environmental conditions implies that dynamic capabilities are developed only

and exclusively in response to environmental dynamism. However, as Zahra et al. (2006) suggest, dynamic capabilities are also developed as a response to internal pressures towards change and perceived environmental change that do not accord with the actual rate of environmental change. With the notable exception of Eisenhardt and Martin (2000), the dynamic capability construct has only been applied to dynamic industries. And this situation casts strong doubts on whether the framework advocated rigorously mainly by strategic management scholars is applicable to various organisational scenarios. Teece (2007) argues that a firm that is merely competent in operational activities is destined to fail unless it develops a broader set of dynamic capabilities. However, I do wonder whether the development and deployment of dynamic capabilities is the only way to maintain a firm's competitiveness. This argument may not hold true in certain industries and certain countries in which overarching contextual factors would result in the development of a different set of constraints for firms operating in those contexts. This again points to the value of cross-case research, since one might be able to find commonalities across firms and patterns across industries with varying levels of dynamism.

Finally, both Ambrosini and Bowman (2009) and Easterby-Smith et al. (2009) encourage researchers to integrate the dynamic capabilities framework into other relevant fields of organisation theory, such as organisational learning and organisational development. The dynamic capabilities perspective is a field overloaded with strategic management concepts and economic theories, and extending it to other aspects of organisational theorising would facilitate our understanding of the dynamic capabilities which exist in organisational practice. For example, studying the link between dynamic capabilities and organisational learning would allow us to distinguish better between lower-level and higher-order capabilities, by examining the learning processes which they rely on. Currently, the majority of the dynamic capability field suffers from one-sided theorising. Widening the lens of our theorising will help to resolve the various theoretical conundrums discussed above; it would also open the concept of dynamic capability to thorough scrutiny by introducing other elements of organisational life to the current narrow strategic and economic representation of dynamic capability.

As a result, there are two main problems limiting the usefulness and wider applicability of the dynamic capabilities framework. First, the field suffers from one-sided theorising, since many elements of organisational studies are not integrated to the study of the concept. Second, the methodological tools used to research dynamic capabilities have been either theory based or quantitatively influenced. Coming from a social constructionist angle, I find this insufficient and would like to scrutinise the assumptions. Approaching the concept using a different set of methodological tools and exploring the concept from different perspectives in line with the recent developments in the study of organisations, namely the contextualised, situated and social aspects of organising that account for the human side of organisations would cater for progressive development of the dynamic capabilities framework. I turn next to the issue of how research into capabilities can be improved.

2.2.3. Statement of the Problem: Developing an Alternative Conception of Organisational Capabilities

'Organisation' and 'environment' are key concepts in the vocabulary of the organisational capabilities field. The literature presented throughout Sections 2.2.1 and 2.2.2 shares the common assumption that organisations exist within an independently given environment. This environment can be perceived accurately (as in the case of the objective environment model discussed in Section 2.2.1) or inaccurately (as in the case of the perceived environment model discussed in Section 2.2.2); but in either case, in order to maintain market performance, managers should find a way to match endogenous organisational resources with the constraints, trends and other exogenous factors of the business environment (Lawrence and Lorsch, 1967). Recently, under the influence of the interpretive paradigm (Burrell and Morgan, 1979) and the sense-making stream (Weick, 1995) another perspective for modelling the environment strives for attention. This perspective argues that a separate objective environment, external to the organisation, does not exist. "Organisation members actively form (enact) their environments through their social interaction. A pattern of enactment establishes the foundation of organisational reality, and in turn has effects in shaping future enactments" (Smircich and Stubbart, 1985: 724). According to the enactment perspective, the same 'objective' business

environment may appear differently to different organisations, and even to different individuals.

Surely, things happen in the environment, material elements in the business environment are real – governments impose new regulatory standards, new competitors enter the market, raw material prices increase, customer demand shifts. But all of these are meaningless and appear as random events until members of an organisation notice them, make sense of them, find patterns within them. Environments are not separate objective forces that impinge on an organisation (Smircich and Stubbart, 1985). The environment is dependent on the organisational member's perceptions, interpretations and experiences. The character and dynamics of this enacted environment depend on the affective predispositions and patterns of attention of key organisational members, their particular intellectual efforts to make sense of events and situations, and a series of choices regarding the organisation and production. As such, the enacted environment model implies that there is no environment to be perceived and adjusted to. Although the argument of environmental adaptation and alignment is one of the most appealing theories for competitive advantage, the enactment perspective shows that organisations in an industry cannot simply stand outside the general business environment and adjust themselves to environmental trends and changes; environments are made by organisational members' and organisations' actions. This suggestion places managers in an entirely different role from that pictured by the objective and perceived environment models. In those models, in order to maintain firm performance, managers are supposed to collect and build up massive amounts of information from the environment, process and analyse that information, and formulate decisions derived from that information. The enacted environment model envisages a chaotic world in which "a continuous stream of ecological changes and discontinuities must be sifted through and interpreted ... People make sense of their situation by engaging in an interpretive process that forms the basis for their organised behaviour" (Smircich and Stubbart, 1985: 739). In this representation, organisational change and development are not confined to cognition and intellect but have a social emotional dimension that should be elaborated on. It bridges mind processes and social processes, abstract thinking and

experience.[1] Actually it is the social processes, organisational behaviours and managerial actions which produce cognitions, which then guide further processes, behaviours and actions. "The process of enactment consists in the ongoing adjustment of an organisation's actions and cognitions through its interaction with its environment" (Danneels, 2003: 560). Danneels models the enactment processes in the following way (Figure 2.1):

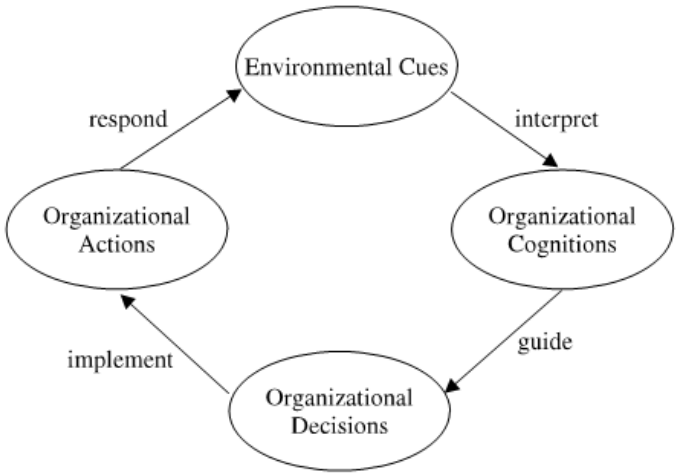

Figure 2.1. Model of Enactment (Danneels, 2003: 560)

As the model suggests, organisations act upon the environment, interpret environmental responses to their actions and reshape their actions based on environmental feedback. Thus, organisations enact their environments based on inferences about the effects of their actions. Theoretically, the environments that can be enacted are limited only by human imagination. However, in fact, the number and kinds of environments which might be enacted are constrained by past repertories of solutions to organisational and environmental problems formed by organisations' past experience and the neighbourhood of known alternatives to structuring and developing responses. The parochial nature of interpretations suggests that once an organisation develops a set of responses to perceived changes in its surrounding conditions it may have difficulty in pursuing actions outside this self-set scope. "In the process of enactment, cognitions and actions reinforce each other and become increasingly focused" (Danneels, 2003: 559). Miles and Snow (1978) note that these constraints on interpretations and organisational decisions and actions are dynamic, in the sense that

[1] This kind of bridging approach that merges the cognitive and social dimensions of organisational life will be advocated in Section 2.3.3 as a new research perspective in the field of organisational learning.

existing constraints can be relaxed or removed by major organisational changes. "If people want to change their environment, they need to change themselves and their actions – not someone else" (Weick, 1979: 152), simply because the environment responds to the interpretations and subsequent concrete actions of organisational members. But it is important to note that any new direction chosen will bring with it its own set of constraints (Miles and Snow, 1978).

One very important consequence of enactment theory is that the boundaries that an organisation sets around the environment are also enacted and these enacted boundaries determine the scope of the organisation's future actions and decisions. As the organisation responds to what is perceived when a change happens outside the organisation's focus of attention, that change will not be noticed by the organisation, implying that the organisation will not act to adapt to that particular instance of change. By contrast, the organisation whose managers and influential members perceive great change in its environment will go through major efforts to make substantial adjustments in its structures, processes and mechanisms. For example, managers differ in their beliefs about the sources of competitive advantage and these beliefs focus their attention on some activities to the exclusion of others (Schlemmer and Webb, 2008). Based on idiosyncratic lenses of their beliefs, assumptions, cognitive base, knowledge and former experiences, organisations monitor the firm's environment selectively, they filter and interpret the available stimuli through their selective perceptions (Adner and Helfat, 2003). This interpretative process may not necessarily impair the competitiveness of an organisation but it may have negative effects on learning. Managerial decisions and organisational actions are influenced by the way a firm's environment is monitored and interpreted, which means that organisations may not be able to notice and hence not react to important changes in their environment (Day and Nedungandi, 1994). But this does not mean that making interpretations is a dysfunctional process of adaptation, innovation and learning. It is quite the opposite, organisations must make interpretations in order to filter and process the events in their external environment and act on these events, which is inarguably the first step towards adaptation and innovation. The key determinant is what the organisational members base their interpretations on.

The importance of perceptions has also been supported by empirical research in the area of competitive advantage and dynamic capabilities. Rindova and Fombrun (1999) found indications that IBM managers' interpretations of competitive interactions affected their decisions on how resources are deployed. Harreld et al. (2007) suggest that one of the core tasks of managers is to develop the firm's dynamic capabilities. Nonetheless, their capability to do so depends on their motivation, skills and experience (Zahra et al., 2006). Schlemmer and Webb (2008) show that the managers of high-performing firms believe that dynamic capabilities are critical for market performance and, therefore, that they monitor and control them carefully, while low-performing firms narrow their focus to the traditional way of doing business and develop a resistance to change and the development of dynamic capabilities. In other words, how managers interpret environmental changes and whether they perceive any uncertainty or threat in the environment will affect the deployment of dynamic capabilities within the firm. Aragon-Correa and Sharma (2003: 77) explain three forms of uncertainty: "environmental state uncertainty occurs when managers perceive their business environment or one of its components to be unpredictable; organisational effect uncertainty occurs when managers have difficulty understanding or predicting the impact of changes in the general business environment on their organisations; and decision response uncertainty occurs when managers perceive an inability or risk in predicting the consequences of individual decisions". They suggest that firms will respond to the environment as it is interpreted by managers and will deploy different dynamic capabilities based on their managers' perceptions. This view contributes to the debates in the field of dynamic capabilities as it shows that dynamic capabilities are not only contingent on environment dynamism – as suggested by Eisenhardt and Martin (2000) – but also on managers' interpretations of the degree of dynamism in their business environment. This finding is in line with Zollo and Winter's (2002: 346) argument, when they suggest that "organisations differ in their dynamic capabilities partly because they inhabit environments with differing rates of change, but also partly because they place different bets, implicitly or explicitly, on the strategic importance of change in the future". Newey and Zahra (2009) demonstrate, through their case study, that management sometimes sees opportunities as negative and that this can lead to the termination of a dynamic capability. Thus, changes in dynamic capabilities are not solely based on exogenous factors; internal endogenous factors clearly drive the development and reconfiguration of

organisational capabilities (Newey and Zahra, 2009). In the same vein, Adner and Helfat (2003) examined the US petroleum industry and discovered that within this single industry, where managers face similar external conditions, different managers in different firms made different decisions in response to changes in the external environment. Unperceived environmental changes will affect neither management decisions nor the actions of the organisation (Aragon-Correa and Sharma, 2003). Managers may interpret environmental changes as threat or as opportunities, they may view those changes as influencing their competitive strategy weakly or strongly, and they may even have a different sense of whom their relevant competitors are (Aragon-Correa and Sharma, 2003; Tripsas and Gavetti, 2000). Other recent studies have documented the strong influence of the implicit framing of competitive challenge on a firm's response to external change at NCR (Rosenbloom, 2000), Kodak and Anderson (Kaplan and Henderson, 2005), and Polaroid (Tripsas and Gavetti, 2000). Along the same lines, Danneels (2010) demonstrated the inability of Smith Corona to respond to disruptive changes in the typewriter industry as a result of the absence of dynamic capabilities specific to the adaptation of cognitive frames. These findings support the enactment model's argument that organisational members' interpretations of events could play an important role in the development of dynamic capabilities.

Previous work in the evolutionary tradition of the perceived environment model implies that dynamic capabilities can vary with levels of environmental dynamism. The original work of Teece et al. (1997) asserts that dynamic capabilities are necessary to deal with rapidly changing environments, but recent work suggests that the pace of change in an industry acts as a contingency factor in the development and deployment of particular dynamic capabilities (Eisenhardt and Martin, 2000; Winter, 2003). While recognising the influence of environmental features is a clear improvement on the neoclassical economics perspective discussed in Section 2.2.1, even this contingency perspective of organisational capabilities becomes insufficient to explain the decision to accumulate certain organisational capabilities. The primary research focus for the majority of dynamic capabilities literature is, however, not to understand the implications of managerial interpretation *per se* for capability development. Rather, they position perceptions, interpretations and cognitions as limits on human personality, as factors that lead to imperfect and incomplete information about the external environment. Very like the neoclassical economists,

both RBV and dynamic capabilities alike expect organisations to succeed in aligning internal organisational resources and processes with the pace of environmental change for sustained competitive advantage. They still assume a real and independent environment which is external to the organisation. Even the researchers who account for the mediating role of managerial cognition and interpretations have to encompass the 'real, external environment' and partly 'mistaken' beliefs of managers. From a practical standpoint, the challenge for managers is to minimise the gap between their flawed perceptions and the reality of their environment. If the environment is an 'objectively' dynamic industry, then managers who misperceive the rate of change in the environment and who consequently fail to develop and deploy the necessary dynamic capabilities will be weeded out by the environment. For example, management might 'inappropriately' diagnose the type of change needed and fail to develop the 'appropriate' dynamic capabilities, leading to insufficient adaptation and declining market performance (Ambrosini et al., 2009).

The dynamic capabilities framework predicts that if an environment is 'objectively' dynamic then firms with dynamic capabilities should be able to have lasting competitive advantage, and firms that fail to reconfigure their internal competencies to match the changing level of the external environment would fail to survive. But if environments are enacted then there is no such thing as rapidly changing environments. If we rule out the inherent assumption that an objective environment does not exist, what would be the implications for organisational capabilities? If firms operating in the same industry perceive and enact differing levels of environmental dynamism, even though they share the same external conditions, then would they not develop and deploy organisational capabilities with differing levels of dynamism? Does this suggest that a firm that enacts a stable environment and does not possess dynamic capabilities can successfully coexist, in the same industry, with a competitor that enacts a dynamic environment and continuously reconfigures its internal competencies? If this is a possibility, then what would be the implications for the idea of alignment forcefully argued by strategic management scholars? Ambrosini et al. (2009) envisage managerial over- and under-reaction with respect to capability development as a result of misperceptions of environmental stability. But the effects of over- and under-reaction have not been studied empirically. What would be the outcome of managerial misdiagnosis of the degree of change required? Are these

organisations really doomed to failure? Unfortunately, these questions remain unanswered in the literature and the works reviewed in this section are but an initial exploration of largely uncharted territory. As Easterby-Smith et al. (2009), Newey and Zahra (2009) and Tripsas and Gavetti (2000) suggest, more research should be conducted on the influence of endogenous antecedents, such as beliefs and assumptions about and cognitive representations of external environmental features on the accumulation of organisational capabilities.

2.3. Organisational Learning

Many recent studies on capabilities have suggested that learning plays a significant role in the creation and development of dynamic capabilities. Teece (2011) notes that in the dynamic capabilities framework, organisational learning is at the heart of organisational capabilities. Effective organisational learning requires dynamic capabilities (Easterby-Smith and Prieto, 2008), and organisational capabilities, whether dynamic or not, because they are built rather than bought in the market (Makadok, 2001), can only be developed via organisational learning processes such as learning by doing, the accumulation of experience, knowledge absorption and codification activities (Zollo and Verona, 2011). Learning is also necessary for the maintenance, development and expansion of organisational resources and capabilities (Teece, 2011); thus it has critical importance in the development of dynamic capabilities. In a market context where technological, regulatory and competitive conditions change in rapid and unpredictable fashion, even dynamic capabilities will need to be updated frequently, and this requires higher-order learning approaches (Zollo and Winter, 2002). Zollo and Winter (2002) explain that learning is at the base of dynamic capabilities and guides their evolution. But learning is even more central for organisational capabilities at a more fundamental level. In a world where organisational members have their own models of the competitive landscape and do not, a priori, know each other's models, a common knowledge base must be developed that enables organisational members to communicate effectively in order to take action. If, for instance, one member of the organisation shares her market knowledge with another member and states that, to the best of her knowledge, the present competitive condition is X, then the meaning of this information can still be

misunderstood because the receiver has different individual capabilities (when X has no meaning as far as the receiver's information-processing capabilities are concerned) or utilises a different knowledge set to that of the sender (when information about X is processed through a different filter by the receiver). Since organisations are social entities that survive as a result of collective actions, then, as far as organisational capabilities are concerned, the challenge is to build a common knowledge base. This knowledge base must itself be developed through learning. Moreover, organisational members need to modify their own individual knowledge basis in order to track environmental changes which once again accentuates the importance of individual and organisational learning for the development of collective competence and the improvement of organisational capabilities. It seems clear that a theory for the development and evolution of dynamic capabilities must consider organisational learning and learning mechanisms. Winter (2003) states that the literature does not contain any attempt to give a straightforward answer to the question of how capabilities are developed and evolved through learning. I therefore direct attention to the organisational learning field as I believe it will answer the question of how organisational capabilities are created, which is something that the dynamic capabilities scholars are still unclear about.

Like all scientific theories, theories of organisation come and go. Some theories reach deeper than others. Occasionally, some of these theories amount to a conceptual upheaval. This is what it seems to be happening with the research on organisational learning. The field of organisational learning has already gained considerable attention over a few decades; however, until now, its comprehensive theory has remained elusive (Friedman et al., 2005). There have been many reviews, which have categorised the literature in different ways (Akgün et al., 2003; Dodgson, 1993; Easterby-Smith, 1997). Numerous authors have identified two main traditions in the field of organisational learning. Swan et al. (1999) distinguish between cognitive and community models, Cook and Brown (1999) contrast epistemologies of possession and practice, Gherardi (2000) differentiates between mentalist and functionalist perspectives, and Marshall (2008) believes that there has been a persistent division between cognitive and practice-based theories. Following Sfard's (1998) classification, I differentiate between *acquisition* and *participation metaphors*. Both of them are present in leading texts of the field of organisational learning, though they

represent two ways of understanding learning at the organisational level and differ fundamentally in their assumptions and ontologies (Marshall, 2008). The former is based on cognitive and behavioural psychology (DeFilippi and Ornstein, 2003) and on information processes focusing on the individual acquisition of skills and knowledge as a point of departure for studying learning at the organisational level. The latter has many variants, including situated learning (Lave and Wenger, 1991), communities of practice (Brown and Duguid, 1991), cultural processes (Cook and Yanow, 1993) and practice-based learning (Gherardi, 2001). Despite differences in terminology, these authors are strongly informed by ideas drawn from social learning theories and have a stronger grounding in sociocultural psychology (DeFilippi and Ornstein, 2003). The participation metaphor primarily suggests that learning is embedded in relationships and interactions between people, and that it takes place through participation in communities of practice. While the acquisition metaphor is likely to be more prominent in the early literature on organisational learning, more recent studies are often dominated by the participation metaphor.

Based on this classification, in the following section I first present a short review of how these two metaphors of learning are reflected in the literature on organisational learning. In so doing, I aim to distil the assumption inherent to the current representation of organisational learning. Having considered the promises and challenges of the two metaphors, the third part of the section suggests a dialogue between the two traditions and attempts to synthesise the two metaphors of learning. Recognising the potential drawbacks of using cognitive approaches, the final part of the section will suggest taking an interpretive stance on cognition by understanding knowledge acquisition and transfer processes in a more socially-situated manner than has often been the case previously. This ‘bridging’ approach, that informs this thesis, focuses on exploring the interplay between individual knowledge, skill acquisition and organisational learning as context-dependent and embodied in perceptions and values of the organisation.

2.3.1. The Acquisition Metaphor

The *Collins English Dictionary* defines learning as the act of gaining knowledge of (something) or acquiring skill in (some art or practice). In the early literature, organisational learning is defined as the acquisition of information, knowledge and know-how (Argyris and Schön, 1996) by emphasising the role of individuals' cognitive capacities and ability to acquire relevant information and knowledge (DiBella et al., 1996; Huber, 1991). One finds a variety of terms generated by the acquisition metaphor that denote the action of making knowledge one's own: absorption, acquisition, development, accumulation. This knowledge is 'out there', stored in some form, and the main challenge of learning is to acquire it. Once acquired, the knowledge should be stored properly for future use. When needed, knowledge, like any other commodity, may now be applied, transferred to other contexts, or shared with others. The main concern of theorists in this tradition is to examine the process of learning and the way it takes place.

Since theorists have published work in this field for decades, it is to be expected that different schools of thought will have emerged over time within the acquisition metaphor. At a broader theoretical level, authors utilising the acquisition metaphor can be grouped into two streams: authors who are dominantly based on cognitive psychology and those who are informed by ideas drawn from behavioural psychology. The former view organisations as systems of information that are capable of acquiring, processing and storing knowledge almost like a computer, while the latter builds mainly on the stimulus-response model of behavioural learning theory, viewing organisational learning as a phenomenon driven by its consequences.

2.3.1.1. Cognitive theories

The cognitive approach in psychology seeks to understand learning through mental processes such as thinking, reasoning and memory. Just as individuals have brains to store and retrieve information and beliefs that guide thinking and reasoning – i.e. cognition – so organisations have "cognitive systems and memories … world views and ideologies" (Hedberg, 1981: 6). Theorists in this tradition have applied concepts

such as mental models (Senge, 1990; Kim, 1993), cognitive maps (Weick and Bougon, 1986), collective memory (Huber, 1991) and cognitive systems and memories (Daft and Weick, 1984) to understand organisational learning.

There is a premise that even though organisations are not mere collections of individuals, there are no organisations without individuals. Simon (1991) defined organisational learning as learning by an individual that is reflected in the structural elements, outcomes and consequences at the organisational level. He rejected the idea that organisations can themselves learn, claiming that "all learning takes place in individual human heads" (Simon, 1991: 125). Kim (1993) went even further, stating that organisations can be treated as if they were "extended individuals" (p.43). He suggests that organisational learning is accomplished when individuals make their mental models explicit via discussion and negotiation and mutually modify them to create organisationally shared mental models, which in turn guide organisational actions. Prior to Kim, Senge (1990) also pointed out that the main asset of mental models (individual or organisational) is that they possess the power to influence actions. Thus, improving mental models is essential for learning, both at individual and organisational levels. Mental models are treated as a matter of computation, whereby incoming data are processed just "like the source code of a computer's operating system, the manager and arbiter of acquitting, retaining and deleting new information" (Kim, 1993: 39). This perspective is also evident in the writing of March (1991), who argues that, over time, organisations store knowledge from the learning of its members in the form of organisational code that forms the organisation's shared mental model.

Similarly, Daft and Weick (1984) assert that although individuals send and receive information, managers in the organisation share cognitive maps that enable the organisation to scan, process and interpret data. Moreover, they suggest that these cognitive maps form the basis of organisations' information processing mechanisms, enabling the organisation to detect environmental events. Interpretation of this environmental data is a crucial stage occurring immediately before organisational learning and action. Within this sub-view of the cognitive perspective, which can be called an interpretation-based perspective, sense-making is a critical component of learning. Even though this view suggests that organisations possess their own

mechanisms of interpretation, individuals are still considered to be key information processors. While Daft and Weick (1984) point to the need and necessity for organisations to develop and design their interpretation system, they are relatively reluctant to discard the cognitive perspective with its over-reliance on the scanning characteristics of organisations and on individuals as interpretation-processors.

The perspective elaborated by Daft and Weick (1984) forms the basis of Huber's (1991) work, which proposes another behavioural definition of organisational learning. He suggests that "an entity learns if, through *its processing of information*, the range of *its potential behaviours* is changed" (Huber, 1991: 89, italics added). The information processing consists of four inter-related constructs: knowledge acquisition, distribution, interpretation and storage. Although these four processes of organisational learning are listed in progressive order, learning is perceived as a cyclical dynamic process. Huber attempts to devise a holistic understanding of organisational learning by proposing a behavioural definition of organisational learning. But, yet again, he is somewhat shy of divorcing his work from the cognitive roots by viewing organisations as systems of information and suggesting that organisational learning begins with the individual, just like Daft and Weick (1984).

More recent work by DiBella et al. (1996) uses Huber's (1991) framework as a basis to research how organisations learn and how learning orientations are conducive to developing organisational learning capability. Their framework is slightly different from Huber's since they explicate and, to some extent, reformulate Huber's constructs by sequencing them. Implicit in their formulation is that relevant information and knowledge is acquired by individuals from various knowledge sources, documented and stored, and transferred and acquired by other individuals who need it. Towards the end of their article they mention the role of values, norms, culture and socialisation, but they fail to suggest how these social factors of learning serve to enhance learning capability or how organisational learning is facilitated and impeded by these factors.

Not only information but experiences too can be processed, according to learning theorists informed by the cognitive perspective. The suggestion that learning derives from experience processing takes us to the tradition of experiential learning. Kolb (1973) proposed that learning takes place progressively, and moves from concrete

experience to reflective observation, then abstract conceptualisation, and finally active experimentation. This perspective suggests an active interconnection between cognition and action and is further developed by the contributions of Honey and Mumford (1982). They renamed the stages in Kolb's cycle and built a typology of learning styles around this sequence, identifying individual preferences for each stage – activist, reflector, theorist and pragmatist, respectively. Basing his model on individual learning in Kofman's version of the learning cycle, which follows the sequence of observe-assess-design-implement, Kim (1993: 38) believes that "experiential learning theory is the school of thought that best accommodates [operational and conceptual] aspects of learning", since it takes into account "both what people learn and how they understand and apply that learning". March and Olsen (1975) ground their argument in the critique of the rational calculation model of organisational choice. They argue that learning from experience is a fundamental process of organisational intelligence, whereby environmental responses to organisational actions affect individual cognition and future preferences, which will then be used to choose between future alternatives. Although the main part of their work is devoted to types of experiential learning, organisational factors affecting where and when information is searched for, and ideas about belief structures and related values, were introduced in this paper a decade before Daft and Weick's (1984) work.

2.3.1.2. Behaviourist theories

Behavioural learning focuses on objectively observable behaviours. This approach to understanding learning rests on the assumption that learning is the acquisition of new behaviour based on environmental conditions and the consequences of previous behaviours. This happens as a result of a learning process called conditioning, which is based on a stimulus triggering a response. Basically, behavioural conditioning is a simple feedback system: If a reward or reinforcement follows the response to a stimulus, then the response becomes more probable in the future.

Some organisational learning theories mirror the stimulus-response patterns of behaviour. For Weick (1991: 117), "the defining property of learning is the

combination of same stimulus and different response". Similarly, Cyert and March (1963) see organisational learning as involving adaptation. For them, organisational learning occurs when an organisation, in response to "an external source of disturbance or shock", selects behaviours that lead the organisation "to a preferred state" (Cyert and March, 1963: 99).

Probably one of the best examples of the stimulus-response models of organisational learning is illustrated in Argyris and Schön's (1978) very popular conceptualisation of single-loop and double-loop learning. In their work, Argyris and Schön (1978) define organisational learning as a process of detection and correction of errors, where errors occur through a mismatch between expectations and outcomes. The process is described thus:

> When the error detected and corrected permits the organisation to carry on its present policies or achieve its present objectives, then that error-and-correction process is single-loop learning. Single-loop learning is like the thermostat that learns when it is too hot or too cold and turns the heat on or off. The thermostat can perform this task because it can receive information (the temperature of the room) and take corrective action. Double-loop learning occurs when error is detected and corrected in ways that involve the modification of an organisation's underlying norms, policies and objectives. (Argyris and Schön, 1978: 2-3)

As the above description suggests, single-loop learning occurs as a direct result of consequences. The behaviour of the organisation in certain situations is determined and modified as a result of the consequences of past behaviour. If no error is detected, then no behavioural modification will take place and no learning will occur, according to Argyris and Schön's conceptualisation of learning. This conceptualisation of learning is grounded in the stimulus-response model of learning. Behaviours followed by aversive consequences are reduced (punishment), while behaviours followed by positive consequences are increased (positive reinforcement), thus trying to make techniques more efficient. Double-loop learning is not independent from its consequences, either. In contrast to single-loop learning, double-loop learning is more creative and reflexive in the sense that it "involves questioning the role of the framing and learning systems which underlie actual goals" (Usher and Bryant, 1989: 87). But it is the consequences of organisational actions that are questioned, interpreted and reflected on. Double-loop learning is derived from questioning and interpreting the

consequences of past behaviour and, in this respect, learning is again stimulus-induced.

A very similar conceptualisation of learning is offered by Fiol and Lyles (1985). They indicate that two important dimensions of learning are cognitive development and behaviour development. They link changes in the level of behavioural and cognitive development and suggest that the strength of association between the two determines the type of learning that takes place. Their work perceives learning as an adaptation process and distinguish between lower-level and higher-level learning, the former being merely repetition of past behaviour and behavioural adaptation to consequences of past behaviours and involving association building between behaviour and outcome. This can also be described as path-dependency (Nelson and Winter, 1982), meaning that organisations base their future behaviour on cumulative learning that worked in the past – which is similar to the idea of positive reinforcement in behavioural conditioning. Thus, lower-level learning represents associative learning based on the stimulus-response model. Higher-level learning, on the other hand, "is a more cognitive process than is lower-level learning" (Fiol and Lyles, 1985: 808), it includes questioning the consequences of behaviours and seeking a more profound understanding of the causation of organisational processes. Higher-level learning enables the development of more complex patterns of association between cognition and behaviour and is less constraining than lower-level learning, which includes the adjustment of specific behaviours driven by consequences.

2.3.1.3. Critical reflections

As the above discussion of the literature suggests, the acquisition metaphor draws heavily upon arguments and assumptions from cognitive and behavioural psychology, in particular the understanding of organisational learning through the analogy of information and experience processing and the stimulus-response model of learning. Although providing numerous valuable insights into the nature of organisational cognition and behaviour, my contention is that the theoretical heritage on which the organisational learning concept is founded actually limits the ability of organisational

learning research to engage with the depth and richness of issues surrounding it. In this section I outline what I see as the main limitations of the acquisition metaphor.

First of all, both the cognitive and behavioural traditions to understanding organisational learning suggest a deterministic approach to learning. The mental model mechanism and stimulus-response behaviour in the respective perspectives allow the prediction of likely future actions of the organisation, based on interpretive schemas to evaluate the current situation and previous experiences of the organisation in similar situations. This results in an oversimplified, mechanistic and almost static representation of learning. Marshall (2008: 416) points out that "cognitive frameworks are seen as economizing devices … channelling the assimilation of new information without undue cognitive effort. People are depicted as 'cognitive misers' relying on established frameworks, models to schemata". In this usage, organisational learning is treated as a matter of acquiring incoming data, which are external, independent and objective, processing them according to pre-established rules that form the mental models, and finally transferring them from one host to another. This mechanistic portrayal of learning as a matter of computation clearly suggests limiting the use of complex cognitive resources. It seems to me that having these shortcuts for seeing the outside world and acting on them represents a unitarist portrayal of learning; this is primarily based on a passive acquisition and processing of knowledge which fails to engage with the complex, messy and ambiguous activities that surround learning.

Another key problem of the acquisition metaphor is the simplistic extension of individual-level learning models to model organisational learning. Since cognitive and behavioural psychology studies individuals, organisational learning theorists drawing upon the arguments that these fields have to carry unwanted baggage of assumptions that actually limit their ability to deal with organisational learning as a social phenomenon. Even though these contributions attempt to perceive organisational learning as a distinct organisational phenomenon, the individualistic origins of learning in this stream are still too strong. It may seem counter-intuitive that organisational learning research, which claims to deal with a social system (i.e. the organisation) could exhibit this property, but two tendencies in the organisational learning literature evidence the individualistic portrayal of learning. First, most organisational learning models adhering to the acquisition metaphor are a simple

extension of individual learning models. For example, there is a high degree of similarity between Kolb's (1973) individual learning cycle (experience, observe, reflect, experiment), Schein's (1999) model of organisational learning (observation, emotional reaction, judgement, intervention), and Argyris and Schön's (1978) learning cycle (discovery, invention, production, generalisation). At first glance, anthropomorphising organisational learning might appear to be a helpful approach, but the analogy between individual and organisational learning provides rather insufficient guidelines on how to identify, introduce or improve organisational learning. Furthermore, Friedman et al. (2005) warn against attributing human capacities to a non-human entity. It is argued that the literature should avoid mapping individual theories onto the organisational level:

> Individual learning produces insights and changes in habits, skills and action. Organizational learning produces changes in norms, doctrines, standard operating procedures, structures and cultures. Consequently, organizational learning cannot be properly understood without using social, political and cultural lenses in addition to cognitive lenses. (Lipshitz et al., 2002: 93)

Due to the anthropomorphising approach to learning, the critics of cognitive theories often question whether organisations are actually capable of performing such operations as learning or interpretation. Argyris and Schön (1996) argue that even if it is said that organisations learn or remember or think, it does not literarlly mean that they do that and assert that the individual is acting on behalf of the organisation. This leads to the second individualistic tendency of the acquisition metaphor, which is the "individual action bias" (Huysman, 1999: 63). Huysman (1999) observes that, in general, organisational learning is approached as an activity performed by individuals, as conceded by Argyris and Schön (1996), Dodgson (1993), Hedberg (1981), Kim (1993) and Senge (1990). Dodgson (1993: 377), for example, argues that "individuals are the primary learning entity in firms, and it is individuals which create organisational forms that enables learning in ways which facilitate organisational transformation". Organisations are portrayed "as a collection of atomised individuals possessing different types of knowledge just waiting to be linked together" (Marshall, 2008: 417). Since organisations are, by definition, composed of individuals, positioning individuals as principal agents of organisational learning might appear to be unproblematic or excusable. However, the problem with such an approach is that it puts theoretical constraints on researching the mediating role of wider organisational

and environmental conditions, such as industrial forces, organisational cultures, managerial values and power structures. Nicolini and Meznar (1995) argue that such an approach may constrain a fuller understanding of organisational learning.

Finally, this tradition of researching organisational learning is marked by a heavy positivist orientation. The unitarist portrayal of learning and the definition of organisational learning as problem-solving (March and Olsen, 1975) and error-correction (Argyris and Schön, 1978) accept the existence of an objective reality. The knowledge acquired from the environment, which would be both the foundation and consequence of a shared mental model (Kim, 1993) or governing variables (Argyris and Schön, 1974), will in some respects be correct and in other respects incorrect. When the mental model is incorrect, meaning that it does not correctly represent the external reality, single-loop learning occurs and the mental model is aligned with the external environment. This portrayal of learning does not only accept the existence of an objective reality, it also implies a strict dualism between the environment and the organisation. As such, it assumes the existence of clear and unambiguous boundaries or differences between internal and external, between organisation and environment (Cooper and Law, 1995). Thus, the environment is not only external to the organisation but is also independent, which is something to be observed unobtrusively. Stimulus-response models of organisational learning suggest the existence of an objective independent external environment which reacts to the organisation's actions; the organisation is then expected to respond to those reactions in more efficient and effective ways. This stands in contrast to the interpretivist approaches to learning which believe in the mutually constitutive character of the environment and the organisation which makes it meaningless to speak of them independently. Moreover, organisational learning does not have to occur in response to an environmental stimulus (as suggested by Argyris and Schön's system of error detection and correction); the drive for learning does not have to be externally induced. Organisations can be intrinsically motivated to learn or the force to learn can come from within the organisation.

2.3.2. The Participation Metaphor

The acquisition metaphor discussed throughout the previous section has been so entrenched in the research on organisational learning, since the inception of the field, that we would probably never have become aware of the possibility of an alternative conceptualisation of organisational learning if another metaphor had not started to develop. Coinciding with a social constructivist turn in the social sciences (Berger and Luckmann, 1967), a new metaphor has emerged in more recent studies on organisational learning. With the emergence of the *participation metaphor*, learning is understood as a process of becoming a member of a certain practitioner community (Lave, 1996). According to the participation metaphor, learning is not something that takes place in the individual mind through detached cognitive operations. Rather, as the name suggests, learning takes place by 'taking part' in everyday organisational life and 'being a part' of a community, of a greater whole (Elkjaer, 2004). Moreover, in contrast to the static representation of learning in the acquisition metaphor, the image of learning in the participation metaphor is dynamic, emergent and ongoing, in constant flux. As such, "while the concept of acquisition implies that there is a clear end point to the process of learning" (Sfard, 1998: 6), this has been replaced by constantly participating in the ongoing activities of the community and becoming skilful and knowledgeable by being in the constant flux of doing (Lave, 1996). Learning is no longer equated with the acquisition of pieces of knowledge. It is not conceived as a way of knowing the world, but as a way of being in the world (Gherardi, 1999). Also, ongoing learning activities are never considered separately from the context within which they take place. Learning is related to the social and institutional context and the political setting within which it takes place and, accordingly, theorists observe the socially constructed, culturally embedded and situated nature of learning (Elkjaer, 2004).

As with the acquisition metaphor, the participation metaphor unifies varying approaches, including situated learning theory (Lave, 1996), a cultural perspective (Cook and Yanow, 1993; Yanow, 2000) and practice-based learning (Gherardi, 2000). While accepting the diversity of approaches, they share a common theoretical problem and observe learning and knowledge though a continuous and ongoing set of daily organisational activities. The seminal contributions to the participation metaphor can

be grouped around two main theoretical threads: (1) the knowledge creation perspective, and (2) the community of practice perspective. If these main theories are placed on a continuum, on the left-hand side one can see researchers such as Nonaka (1994) who uses social learning theory with a positivist twist which postulates individualistic bias, and linear communication of knowledge. This stream of research appears on the doorstep of social theorising since it views the individual as separate from her environment and mainly extends the scope of individualistic organisational learning theory to include social interaction as an addition to information processing, memory and other cognitive factors. As one proceeds along the continuum, the social constructivist/interpretivist assumptions become increasingly evident. This view stands in contrast to the other end of the continuum, since the ontological dimension of learning is considered from a strong anti-dualistic stance. Learning is seen as a journey of discovery (Gherardi, 1999) and a matter of identity development (Lave, 1996) in which the central issue of learning is not individual accomplishment relating to knowledge but rather how organisational practice gives rise to learning (Cook and Yanow, 1993).

2.3.2.1. The knowledge creation perspective

The acquisition metaphor discussed above insists that organisational learning is mainly about individual learning, since "all learning takes place inside individual human heads" (Simon, 1991: 195). Nonaka (1994: 20) offers an alternative viewpoint: "While tacit knowledge held by individuals may lie at the heart of the knowledge creating process, realising the practical benefits of that knowledge centres on its externalisation", where externalisation entails conversion of abstract tacit knowledge into concrete explicit knowledge and reflective peer-to-peer interaction. Nonaka (1994) argues that the portrayal of organisations as systems which acquire and process information and solve problems efficiently in an input-process-output sequence is a passive and static – and in this sense insufficient – representation of the organisation. As an alternative, he emphasises the social nature of organisational learning and the active, dynamic and creative process of organisational knowledge. Organisational learning results from a process that is initiated at the individual level and is shared and expanded upwardly to the organisational level through a spiral of knowledge

conversion by which tacit and explicit knowledge are transferred to each other. This process proceeds through four modes – socialisation, externalisation, combination and internalisation (the SECI model). Socialisation captures tacit knowledge through direct interaction, observation, imitation and practice, as is the case with apprenticeship learning. Externalisation converts this tacit knowledge into explicit knowledge with the help of metaphors and analogies to facilitate the ability to understand abstract cognitive concepts. Explicit knowledge is codified and disseminated in the combination mode and, finally, explicit knowledge is once again converted into tacit knowledge in the internalisation mode through practice and trial-and-error.

Apart from the contributions to the field of organisational learning, Nonaka's theory of knowledge creation is often mentioned in discussions about knowledge management. The knowledge management framework developed by Alavi and Leidner (2001) is based on a view of organisations as knowledge systems that include four knowledge processes: creation, storage/retrieval, transfer and application. The knowledge creation process in Alavi and Leidner's (2001) framework draws upon Nonaka's work (Nonaka 1994; Nonaka and Konno, 1998) and the three remaining processes have strong cognitive underpinnings. In very recent work, Alavi and Denford (2011) have tried to incorporate the view of practice in order to complement the process view by introducing the notions of communities of practice (Lave and Wenger, 1991) and networks of practice (Brown and Duguid, 2001). However, the social side remains mostly unexplored, it merely traces the link between knowledge management practice to the process through which knowledge is created, stored and transferred. As a best-selling author in management circles, he has attracted significant criticism (e.g. Gourlay, 2006; Jorna, 1998). For example, there are suggestions that SECI is not adequately supported by the evidence available and that his methodology is flawed (Gourlay, 2006). Nonaka has responded robustly to these criticisms by both restating the main principles of his theory and introducing new research results (Nonaka et al., 2006; Nonaka and von Krogh, 2009).

Nonaka's work is interesting in that it accommodates the paradox of learning – although organisational learning occurs through individuals, organisational learning is more than the cumulative result of members' learning (Hedberg, 1981; Argyris and

Schon, 1978). Nonaka (1994) views learning as occurring in "communities of interaction" (p.15), a requisite for the amplification of learning and the development of new knowledge. Social networks enlarge knowledge through dialogue and pooling individual knowledge, and they enrich knowledge by enabling the combination of diverse individual perspectives. Although the vocabulary of Nonaka (1994) carries a message of togetherness and collaboration, he insists that "ideas are formed in the minds of individuals" (p.15) and "knowledge is created by individuals" (p.17). This primacy of the individual as the principal learning agent and the emphasis on individual enrichment via new knowledge conflict with the 'participational' conceptualisation of learning. Dualism between individual and organisation, organisation and environment, is also evident, following once again the dualistic tradition of cognitive approaches (Gourlay, 2006).

Epistemologically, Nonaka (1994) views knowledge as something to be codified and stored so that it can be shared and exchanged and new knowledge built upon it. He treats tacit knowledge as something informal and obscure which has to be made explicit in order to be truly understood or be useful: "realising the practical benefits of [tacit] knowledge centres on its externalisation" (Nonaka, 1994: 20). The process of sharing and exchanging knowledge for the purposes of knowledge creation also serves to justify individual information and beliefs, "as part of an aspiration for the truth" (Nonaka, 1994). This predicative view of knowledge is criticised by researchers who suggest that knowledge should be viewed as provisional and context-bound (Brown and Duguid, 1991; Lave, 1996). Cook and Brown (1999: 384) argue that "explicit and tacit knowledge are two distinct forms of knowledge (i.e., neither is a variant of the other); that each does work the other cannot". They contend that: "it is not possible, under any circumstances, for tacit knowledge to become explicit (or vice versa)" (p.397).

2.3.2.2. The community of practice perspective

The writing of Lave and Wenger puts forward the element of community of practice which is defined as a group of individuals which are connected by shared experiences and a passion for a common issue. These groups comprise and informally connect

individuals through their common understanding, experience and practices. They are not organisationally bound and are often not recognised by formal organisational structures (Brown and Duguid, 1991). The community of practice perspective emphasises the acquisition of tacit embedded knowledge, and skills and daily judgements that arise out of 'doing' what is at hand and practising organisational life and work (Cook and Brown, 1999). As such, a community of practice is defined not only by its members, but also by the way they do things, their communication and interpretation patterns (Gherardi et al., 1998). Participating in and belonging to such a community defines the behaviour and identity of its members (Lave, 1996). This approach to organisation involves a broader range of human actions than just cognition; and it enables the researcher to consider the collective, interactive and social dimensions of learning (Yanow, 2000), such as culture, context, practice and identity.

Cook and Yanow (1993) argue that organisations are cultural – rather than cognitive – entities, primarily because they do not have perceptive organs or brains which are necessary for cognitive activities to occur. This view of learning suggests that organisational learning is a group activity, and that knowledge has to be learned collectively, not individually, since no single individual member of the organisation can acquire the know-how to perform organisational activities on her own. Performing organisational activities require the effort of organisational members as a whole, and thus organisational knowledge is held collectively. In fact, as Brown and Duguid (1991) show, organisational work is obviously communal and collaborative and, since it is not an individual process, individual learning is inseparable from collective learning. Organisational learning "resides in what people do interactively with practice-relevant artefacts" (Yanow, 2000: 259); as such, even individual knowledge becomes visible and meaningful when observed in a collective and social setting. Yanow (2000) gives the example of Pele and proposes that, in order to appreciate Pele's football know-how, we need to see him playing as part of a team in a football match; skills cannot be considered in isolation, they involve the whole community of practitioners (Gherardi, 2006). As Tsoukas (1996: 14) notes, "individual knowledge is possible precisely because of the social practices within which individuals engage – the two are mutually defined". Accordingly, knowledge is not a private possession; it is socially constructed (Brown and Duguid, 1991).

By asking the question "can [the] organisation ever *'not'* learn?", Nicolini and Meznar (1995: 738) succinctly illustrate that learning is not a delimited specific activity to be initiated and motivated when there is a problem to be solved. Learning is a continuous process, an integral part of human activity, and an integral part of everyday work practices (Nicolini and Meznar, 1995). Gherardi (1999) suggests that learning is no longer only a problem-solving tool or the acquisition of what is already known; it is a venture of discovery towards something new and unknown. Learning begins with engagement with what is happening in and around the organisation. This conceptualisation of organisational learning requires researchers to focus on the activities of daily work, observe what people do, and centre their attention on the tacit elements of organisational learning. Looking at people's practices, i.e. what they do, is important because, if you want to understand the essentials of a profession, the activities of practitioners is as important as the body of knowledge possessed by them (Cook and Brown, 1999). "Learning is not conceived as a way of coming to know the world, but as becoming part of the social world" (Gherardi et al., 1998: 276), through engaging with others in ongoing practices. It exists in social relations as much as it resides in the heads of individuals. It is socially constructed, holistic, indeterminate and revisable (Marshall, 2008).

Taking the learning out of individual minds and placing it in the social realm of participation and interaction (Gherardi, 1999) requires researchers to sustain a proper context for learning. Learning theorists, such as John Brown, Paul Duguid, Silvia Gherardi, Jean Lave, Wanda Orlikowski and Etienne Wenger, have developed a view of learning that emphasises merging knowledge with practice and putting knowledge and learning back into the context in which they developed and are used. These researchers suggest a 'situated' view of learning. Knowledge is situated in the organisation; organisational know-how is embedded in the practices of each organisation (Cook and Brown, 1999). As such, different from the knowledge creation perspective, knowledge is not something to be stored in books, databases and information systems (Gherardi, 2006). Knowledge is relative, relational and context-bound. Thus, organisational know-how can be learned only within the context of a specific organisation and only by participating in collective organisational activities (Cook and Yanow, 1993). Learning arises through a process of acculturation in which newcomers learn by "legitimate peripheral participation" in ongoing activities of the

organisation (Lave, 1996). Learning from the viewpoint of legitimate peripheral participation involves becoming an insider; it is about learning to function as part of a community. Legitimate peripheral participation concerns the newcomer's progressive involvement in the community as she is increasingly engaged in the actual practices of the community in the workplace. Gherardi et al. (1998) introduced the concept of a "situated curriculum" to denote the pattern of learning opportunities that become available to a newcomer by virtue of her increasing mastery of work activities and communal practices. They argue that it is one of the most important mechanisms of organisational learning, since newcomers become old-timers through increasing acculturation to the habits and traditions of the community by acquiring the viewpoint and language of the community; as such, they become able to behave as community members. A situated curriculum is different from a traditional training curriculum, not only because it includes non-verbal communication, physical activity and observation, together with traditional verbal communication for transmitting knowledge. The major difference lies in the fact that a situated curriculum is not static and preset, it is flexible and changeable in proportion to the newcomer's level of personal motivation actively to seek out learning opportunities (Gherardi et al., 1998).

The centrality of context and cultural artefacts in mediating learning changes the concept of learning from knowledge acquisition to identity formation. Organisational learning is not only a practical accomplishment; it is also a matter of identity of development (Elkjaer, 2003). Through participation in communal activities, a work practice "shapes newcomers' identities and in the process gives structure and meaning to knowledgeable skill" (Lave, 1996: 74). Cultural artefacts actively contribute to defining what is to be learnt and how it is to be learnt by the organisation, as the organisational learning in the Powell flute workshop vividly exhibits (Cook and Yanow, 1993). If knowledge and learning are socially constructed, and if they are an essential part of organisational identity, as is the case with any other social system, then certainly new knowledge will be supported by some and rejected by others. That explains why when a new scale, the Cooper scale, came to Powell's attention, adopting this new scale raised concerns and debates in the organisation. Adopting a different scale was seen as a threat to organisational identity and to the foundations of the organisation. Because of the tight relation between an organisation's knowledge base and its identity, although Powell adopted the Cooper scale, the new scale was

offered to the customers as an *option*; the original scale remained unaltered and was offered as the preset arrangement of the flute, even though 90% of incoming orders were opting for the Cooper scale (Cook and Yanow, 1993). The Cooper scale case implies that communities of practice may become static and resistant to change. The struggle to maintain identity in the case of change and innovation raises concerns about whether the cultural perspective of organisational learning portrays a conservative organisation locked into single-loop learning and incremental change. Grabher's (2004) comparative study of project work in the software and advertising sectors suggests that radical change may be difficult to bring about in communities of practice with stable memberships. Would this lead to organisations putting themselves at risk of being short-sighted and overlooking opportunities or threats?

2.3.2.3. Critical reflections

The strength of the participation metaphor is that theorists in this camp strive to offer a holistic understanding of learning and knowing as dynamic, ongoing and emergent processes deriving from social interactions and organisational practices that are actively situated within specific context and communities. This socially constructed and mediated view of learning provides access to explore the effects of non-human catalysts, such as power, culture, communication, language and identity. In this sense, theorists in this camp allow for a wider conceptualisation of learning with their rich, thick and context-based descriptions. While not denying the important advantages of the participation metaphor, in this section I would like to argue that the outright rejection of mechanistic mentalistic learning processes' cognitive position in favour of positioning practice at the other extreme, away from cognition, is equally problematic.

The participation metaphor is definitely helpful in understanding organisational dynamics and the context in which learning is situated, but it does not explain 'how' learning happens. Theorists argue that learning derives from participation in and belonging to a community of practice, but it is impossible to see how learning comes about through participation. Positioning practice in the centre of the learning process and prioritising tacit knowledge over explicit codified knowledge is limiting, in the sense it does not leave room for mind and thinking (Elkjaer, 2004). The fact that belonging, participating and communicating are emphasised in defining knowledge

and learning as aspects of practice and activity blurs their understanding. Their strong anti-dualistic stance, as a criticism of the acquisition metaphor, ultimately led them to ignore the possible interrelationship of acting and thinking, practice and mind, cognitive and social.

The participation metaphor is silent and hesitant in terms of making reference to models of thinking, i.e. cognitive frameworks, for fear of being accused of representing a mechanistic, unitary and mentalist view of learning (Marshall, 2008). However, it not necessary to see cognition and thinking in computational terms, i.e. relying on an input-process-output model of learning. They can be conceptualised in much broader and less mechanistic terms (Marshall, 2007). They reject cognitive and behavioural explanations of learning, primarily because those theories portray learning as a delimited, specific and intentional activity which is geared to solving problems and realigning the organisation with the external environment. The participation metaphor argues that organisational learning is not a problem-solving tool; it is a journey of discovery, an ongoing activity. Although it is undoubtedly limiting to portray learning as a problem-driven process, I believe it is equally limiting to represent this phenomenon as "learning in the face of mystery" (Gherardi, 1999: 101). Organisations do face problems, they do experience crises, and persistent followers of the participation metaphor cannot encompass crisis-driven measures which import new ideas to the organisation, such as knowledge transfer via change agents and instructional training. Importing knowledge and transferring learning means carrying knowledge across contextual boundaries, and because knowledge is embedded in organisational practices and context-bound this is simply not possible from the perspective of the participation metaphor. Yet the same phenomenon is not even problematised by the followers of the acquisition metaphor; since there is no context of a delineated area and no boundaries to be crossed, there is nothing to be imported or carried over. Disallowing claims about the possibility of transfer becomes an ultimately limiting approach, since it cannot provide access to understanding how intentional learning happens as a specific process in the organisation when organisational renewal and fundamental organisational transformation are crucial to organisational survival.

While the acquisition metaphor suffers from individualistic bias, the participation metaphor unnecessarily places itself at the other extreme. The individual is a free agent in the acquisition metaphor, and researchers in this camp adopt an actor-oriented approach to organisational learning. In contrast, the participation metaphor subjugates the individual to the organisation, she is the subject of an ongoing acculturation process and ultimately her identity becomes inseparable from the organisational identity. The focus on organisational context and culture dissolves the individual in the community of practice. This creates a problematic situation since the impact of transformational knowledgeable and influential members of the organisation remains unaccounted for. Even ordinary professionals are changed by encounters other than those occurring in daily organisational practices. Formal organisations often have a formal training curriculum and members of the organisation acquire explicit knowledge and skills through participation in these instructional activities. Can not this individual know-how change the organisational context?

Furthermore, as Easterby-Smith et al. (1998) note, the seminal writings on the community of practice perspective by Lave and Wenger and Cook and Yanow study small organisations engaged in craft-related activities (e.g. flute-makers, midwives, tailors); and thus these theories may have limited applicability to larger organisations which have much more formal practices in place. Gherardi et al. (1998) targeted this gap and provided empirical evidence for the evolution of communities of practice in the Italian construction industry. And yet, given the fact that each construction site can be appraised as a sub-group within a larger organisation, I do wonder if the notion of community of practice is sufficient to explain how learning happens in formal organisations that have a production-line approach to business operations which is dominated by canonical practices and confined by a highly structural setting. Finally, the link between community of practice and identity formation implies that communities of practice take time to develop (Roberts, 2006). However, in this era of intense competition, project groups have to emerge rapidly and may dissolve just as rapidly as a result of employee turnover. Roberts (2006) argues that the traditional 'slow' communities of practice do not fit the business realities of 'fast' capitalism.

In the next section I will try to answer these dilemmas by arguing that both the *acquisition* of knowledge and *participation* in practices, whereby acquired knowledge

is used, are needed as metaphors to understand organisational learning. I will look at the frameworks generated by the acquisition and participation metaphors as complementary opinions, offering differing perspectives rather than competing camps. Thus, the next section will argue that it is possible to live with contradictions, before moving on to discussing how they can be integrated into an empirical study of organisational learning.

2.3.3. Statement of the Problem: Towards Integration

The message from the above critical examination of the two main learning metaphors seems to be rather confusing. The relative advantages and pitfalls make it difficult to give up either one of them. Each has something to offer that the other cannot provide. In this section, I wish to make clear why it is essential that we try to synthesise the two metaphors when researching organisational learning. Later, I propose a research approach which has the potential to fulfil this seemingly impossible demand.

I suggest that organisational learning can be better understood if the two metaphors are treated equally and complementarily. Before explaining why we need more than one metaphor and how we can synthesise a plurality of metaphors, I first need to show that this proposal is workable. Some may argue that the tension between the acquisition metaphor and the participation metaphor is so fundamental that they can only be seen as contradictory outlooks. After all, it can be argued that the acquisition and participation metaphors make incompatible claims about the nature of organisational learning. One might find it difficult to consider the two metaphors together and so tend to think of them as mutually exclusive. But as Niels Bohr's famous principle of complementarity suggests, concepts such as particles and waves in the field of nuclear physics seem to be in opposition to each other. Alternative concepts for understanding the world are not necessarily contradictory; on the contrary, they can be complementary, as we will see, because they are two different faces of the same phenomenon. According to this interpretation, the acquisition and participation metaphors can peacefully coexist; there is no real antinomy, even though they appear to be paradoxical in the physical world. Hence, building on the principle of complementarity, learning theorists can look on the concepts and frameworks

generated by the acquisition and participation metaphors as being different but mutually complementing perspectives, not as competing opinions.

Clearly, one metaphor may be more attractive and accessible than the other in a given context, depending mainly on what the researcher wants to achieve. But, as Marshall (2008: 413) notes, "the incompatibility of the two sets of approaches has been overstated and ... there is actually much that each can learn from the other". In the spirit of this approach, I argue that organisational learning is to be understood as both a cognitive and a social activity. I submit the view that organisational learning is a combination of individual skills and knowledge acquisition, participation and communication. Similar approaches to bridge seemingly conflicting research approaches were suggested by Cook and Brown (1999), Elkjaer (2003, 2004) and Marshall (2007, 2008). Elkjaer (2003, 2004) extends the idea of communities of practice by including elements of the acquisition metaphor. She calls this synthesis "the third way of organisational learning" (Elkjaer, 2004: 419), which is a pragmatic version of organisational learning inspired by the work of the American pragmatist John Dewey, who understands learning based on the notion of experience. According to Dewey, there are no preset mental models or cognitive schemata. Knowledge and learning always refer directly to human experience, and thinking is an instrument to enquire about and reflect on experience. Although engagement, body and emotion are prerequisites to becoming knowledgeable, Dewey insists that learning is not accomplished if there is no inference from the meaning of a situation and its relation to experience. Using the reasoning of pragmatism, Cook and Brown (1999) provide further insights into knowing by shifting the focus of enquiry from abstract concepts to concrete action. They argue for two epistemological types, one of which is about knowledge possession (the epistemology of possession) and the other about knowledge practice (the epistemology of practice). To differentiate, if knowledge is something that is used in action, then knowing is part of the action. They bridge the two epistemologies by arguing that "organisations are better understood if … knowledge and knowing are seen as mutually enabling (not competing)" (Cook and Brown, 1999: 381). Mere possession of knowledge is no longer sufficient; for instance, if one wants to understand what a good engineer is, she ought to consider the engineering knowledge possessed and practised. This demonstrates that, in order to understand knowing, we ought to look at both the practice and possession of

knowledge as well as proposing that knowing is a broader concept to which knowledge serves as an essential but aiding tool. They illustrate how this approach of bridging knowledge and knowing leads to an improved understanding of organisations by briefly discussing three cases from the organisational learning literature, namely Nonaka and Takeuchi's bread-making machine design, Cook and Yanow's flute-making workshops, and Xerox's paper handling process. Marshall (2008) conducted an empirical study and illustrated how the acquisitionist concept of cognitive maps can be used to understand engineers' daily practices of project work. Integrating cognitive mapping techniques with observational data, Marshall (2008) illustrated that each method offers different depictions of team practices. By comparing the mapping and observational data, he concluded that the observational data provide a much more "unfolding, open-ended and contested" (Marshall, 2008: 430) representation of work practices in contrast to the idealised descriptions offered by the mapping data. In this respect, although Marshall (2007, 2008) suggested integrating cognitive and practice-based approaches, he did not actually integrate them; he simply researched the same phenomenon from both acquisitionist and participationist perspectives.

Inspired by recent work by learning theorists, and by stopping reading acquisitionist and participationist conceptual frameworks as ontological stipulations, I am adopting an interpretive perspective to cognition and attempting to offer a more situated and dynamic treatment of cognition and thinking in organisations. I am attempting to synthesise the acquisition metaphor, with its understanding of learning as the acquisition of knowledge and skills, which build the foundation for organisational capabilities, by including elements from the participation metaphor, which provides access to encompass social and cultural contexts of learning.

Organisational capabilities require individual members' ability to repeat what can be repeated while the organisation changes what needs to be changed. How is all this to be accounted for if researchers cannot talk about individuals carrying skills and knowledge sets from one situation to another? Skills acquired and knowledge learned during canonical and non-canonical practices have to move with the learner from one situation to another, suggesting a cognitive dimension to learning, knowing and doing. Acknowledging this cognitive dimension does not have to be incompatible with a cultural constructivist view of learning. Nor does it have to mean the acceptance of a

narrow rule-based information-processing view and the whole accompanying theoretical baggage. Often, the participation metaphor situates itself rather negatively with regards to the cognitive theories, disregarding their contributions (Marshall, 2008). This approach brings thinking and the individual to the fore again. But the individual is visualised as both agent and subject of a transactional relation between the individual and the organisation, the organisation and the environment (Elkjaer, 2004). Neither does it dismiss the individual or the organisation, or acknowledge that organisational learning is about individual skills and knowledge as well as organisational development and transformation. The transactional relation between the individual and organisation calls upon an understanding of organisational learning as *improved participation for knowledge transfer and skills acquisition*.

The implication is that one should work with specific learning events to explore how the individual and the organisation mutually form their long-term and short-term consequences. These learning events are not only understood as an effort to provide individual members with information to perform organisational activities, but the manner of transmission and acquisition can be accounted for as well. The concept of *organisational learning mechanism* introduced by Popper and Lipshitz (1998; 2000) appears to be a useful concept for bridging the two metaphors at an intellectual level. This intends to illustrate the conceptual and methodological implications of a more socially orientated, contextually situated and dynamic understanding of cognitively orientated knowledge acquisition and dissemination processes in organisations. As the discussion will proceed to illustrate, the organisational learning mechanism comes in handy for integrating contextual elements to study open-ended and unfolding elements in delimited canonical learning events intentionally designed by structural power.

Organisations utilise a variety of internal structures and processes to attend to environmental changes and to realise organisational change in order to make the necessary responses to changing environmental circumstances. The organisational learning mechanism (OLM) is one of them and refers to structural and procedural arrangements that allow organisations to collect, analyse, store, disseminate and use knowledge that is relevant to it. Generalising from several studies on learning in different organisations (hospitals, the Israeli Air Force and various companies, including Dell, Motorola and Bell Labs.), the authors suggest that in every

organisation there are OLMs which are social arenas where individual experiences and knowledge are shared with and analysed by other organisational members. Experience and knowledge then become the property of the entire organisation through dissemination to relevant units or through changes in operating procedures (Lipshitz and Popper, 2000). OLMs range from social organisational arrangements such as meetings and training to physical objects such as reports and suggestion boxes. In order to be classified as an OLM, an organisational structure should provide a venue or a means for aiding information exchange and new knowledge acquisition which will lead to the modification of and transfer of individual learning to the organisational knowledge base.

The acquisitionist outlook in Lipshitz and Popper's (2000: 346) conceptualisation of the notion is evident, since they depict OLMs as "the organisational-level analogue to the nervous system that enables individuals to learn". But the OLM concept does allow for integrating participationist elements since, as case studies by the authors suggest, to be productive these OLMs need to be supported by cultural (Lipshitz and Popper, 2000), organisational and contextual (Zollo and Winter, 2002) facets – such as social atmosphere, leadership style and the speed of technological development in the environment. Popper and Lipshitz use the notion of the organisational learning mechanism in opposition to training. Their purpose is to emphasise the contrast between the two different ways of conceiving organisational learning. Training is based on *learning in the organisation,* "the transmission of explicit, abstract knowledge from the head of someone who knows to the head of someone who does not" (Brown and Duguid, 1991: 47) for skills development purposes. The concept of training as an endeavour of knowledge delivery specifically excludes the complexities of practice. On the other hand, OLMs are based on *learning by the organisation,* which capitalises on and adds to the knowledge available in the organisation via co-participation, and puts knowledge and learning back into the context in which it has deeper meaning and transactional relations.

As a parallel to the attempt to establish a bridge between different theoretical approaches, the concept of OLM is also useful as a research tool. First, OLM makes organisational learning an actual phenomenon and more easily observable, since it allows researchers to focus on existing 'mechanisms' as specific learning events.

Second, it highlights the similarities and differences between individual and organisational learning. The two are similar inasmuch as they both involve knowledge acquisition, interpretation and dissemination processes. They are dissimilar inasmuch as both the nature of the systems with which these processes happen and the nature of these processes in each of them are different. While it can be argued that individual learning is a mental process, organisational learning is primarily a social process. It is through the social facet of OLMs that individual knowledge and learning are transformed into changes in organisational routines, practices, operating rules and procedures. As such, I believe the concept of organisational learning mechanisms provides *a* solution – though not necessarily *the only* solution – to the challenge of studying structural and contextual aspects of organisational learning, and offers an interpretive account of knowledge acquisition and transfer in the organisation for capability-building purposes.

2.4. Concluding Remarks

2.4.1. Implications for the Study of Organisational Capabilities

The first part of the chapter provided an almost chronological evolution of organisational research, studying the relationship between firm skills and capabilities and competitive advantage. The review of the main research streams has illustrated that the early work on competitive advantage was shaped by neoclassical economists. The primary basis of their theorising was based on the notions of rational agent and profit maximisation; the task of managers was to consider the information acquired from the environment, analyse and evaluate it flawlessly, and carry out the necessary organisational actions to ensure optimum positioning of the organisation in the environment. Information perfectness and capabilities neutrality were the underlying assumptions of this stream of research; this kind of theorising portrays competitive advantage as a mechanical information processing procedure and a matter of optimally organising the economic activities of the firm. As the discussion throughout Section 2.2.1 highlighted, this perspective fails to account for persisting inter-firm differences and competitive asymmetries.

The resource-based view, developed and popularised by scholars like Jay Barney and Margaret Peteraf, claims that a firm's resources and the way those resources are deployed explain why some firms are more competitive than others. Section 2.2.2.1 highlighted the two main assumptions of RBV: (1) resources and capabilities are heterogeneously distributed across firms and (2) those resources can become a source of competitive advantage when they exhibit VRIN properties. These resources must be properly managed, and benefiting from them relies on managerial ability to accumulate, divest, enrich, pioneer and leverage the firm's resources suitability. As such, RBV gave a substantial role to managers' decisions and organisations' actions to acquire and deploy resources that would secure competitive advantage and lead to better market performance. As a highly influential theory in organisation theory, it is to be expected that RBV would attract its fair share of criticism. RBV has been considered static and deterministic. RBV assumes frictionless and immobile product markets; and for this reason, the practicality of RBV theory for volatile and unpredictable environments has been questioned by several subsequent authors.

The practical difficulties posed by RBV theory to the realities faced by managers in hyper-competitive situations prompted researchers to extend RBV to dynamic environments and so, as an alternative, the concept of dynamic capabilities has been developed. The dynamic capabilities framework argues that competitive advantage is based on the same basic resources and is not sustainable over time, as external agents will eventually weaken the VRIN characteristics of those resources. Consequently, dynamic capabilities were introduced as capabilities that can generate and reconfigure new resources for sustainable competitive advantage. Research suggests that the dynamic capabilities perspective is a more comprehensive and integrative way to understand sources of competitive advantage; it recognises the key role of managerial proactiveness as well as the external context within which the firm operates. Furthermore, a small minority of dynamic capabilities theorists has explicitly acknowledged the idea that managers' cognitions and interpretations of contextual factors do have important implications for the development and deployment of certain dynamic capabilities. While the majority of dynamic capabilities scholars has suggested that dynamic capabilities are contingent on environment dynamism, alongside other exogenous factors, this group of scholars suggests that dynamic

capabilities are also based on managers' interpretations of the degree of dynamism in their environment.

The primary research focus for most of the dynamic capabilities literature is however not to understand the implications of managerial interpretation *per se* for capability development. Rather, they position perceptions, interpretations and cognitions as limits on human personality, as factors that lead to imperfect and incomplete information about the external environment. Very much like the neoclassical economists, both RBV and dynamic capabilities expect the organisation to succeed in aligning internal organisational resources and processes with the pace of environmental change for sustained competitive advantage. Even researchers who account for the mediating role of managerial cognition and interpretations have to encompass the 'real, external environment' and partly 'mistaken' beliefs of managers. From a practical standpoint, the challenge for managers is to minimise the gap between their flawed perceptions and the reality of their environment.

Under the influence of the recent interpretive turn in the social sciences, I argue that another perspective vies for attention. In Section 2.2.3, I argued that an enactment perspective can lead to a better understanding of the genesis and evolution of organisational capabilities. If we rule out the inherent assumption that an objective environment does not exist, in line with the arguments of Burrell and Morgan (1979) and Weick (1979), then what would be the implications for organisational capabilities? If there is no objective environment to be discovered and optimally perceived, then what are the implications for the idea of alignment forcefully argued by RBV and the dynamic capabilities scholars? This research addresses questions by making explicit the knowledge with which organisational members, and especially managers, construe their situation and explore multiple systems of knowledge in a given situation. Cause-effect logic, which is dominant in capability research, is eschewed in favour of an exploration of managers' reasons for organisational actions and the meanings they assign to external events and agents. The key characteristic that distinguishes this research from the majority of capability research is that rather than accepting an organisation-environment dichotomy that unavoidably leads to models with positivistic normative hints, it raises questions about how managers come to

know their environment and how this knowledge enacts their environment, which will then shape their decisions for capability development.

Such an interpretive approach requires a different research focus and a different mode of organisational analysis. Following Easterby-Smith et al.'s (2009) suggestion, this research adopts a *micro* perspective towards organisations in general and especially in terms of antecedents and the process of capability development. To understand the context of the creation of organisational capabilities, I have conducted fine-grained qualitative investigations which are required to obtain rich contextualised data (Ambrosini and Bowman, 2009; Godfrey and Hill, 1995). In the next chapter I discuss in greater detail the methodological means that enabled me to study organisational capabilities from an enactment perspective.

2.4.2. Implications for the Study of Organisational Learning

In the second part of this chapter I directed attention towards the organisational learning field, as I believe it will answer the question of how organisational capabilities are created, accumulated and enriched, which is something that dynamic capabilities scholars are still unclear about. I argued that learning processes in an organisation are deeply interconnected to the way managers model the environment and develop prescriptions to build certain capabilities premised on this view of the world. Such an integrative approach also responds to the proposal of Ambrosini and Bowman (2009) and Easterby-Smith et al. (2009) to link the dynamic capabilities framework to other relevant fields of organisation theory. As noted in Section 2.2.2.2, introducing the learning element of organisational life would expand the current narrow strategic and economic representation of dynamic capability.

Following this line of reasoning, Section 2.3 outlined the two main research perspectives that have been influential in defining both the scope and legitimacy of much research within the field of organisational learning. In the early literature, organisational learning was defined as the acquisition of information, knowledge and know-how by emphasising the role of individuals' cognitive abilities. The main concern of acquisitionist scholars has been to examine the process of learning and the

way it takes place. The review in Section 2.3.1 grouped the acquisitionist scholars into two streams: scholars who are influenced by the principles of cognitive psychology and scholars who are informed by the ideas of behavioural psychology. Both streams have been criticised as portraying an oversimplified, mechanistic and deterministic portrayal of learning.

Coinciding with the interpretivist turn in the social sciences, participationist scholars started to argue that organisational learning is not a delimited specific activity that takes place through cognitive operations – as advocated by acquisitionist scholars – but is rather an ongoing emergent organisational phenomenon that occurs in everyday organisational life by being a member of a community. They argue that organisational learning is not a problem-solving tool; it is a journey of discovery. As the discussion in Section 2.3.2.3 highlighted, such an emergent and fluid portrayal of learning is almost as problematic as the mechanistic representation of learning, since organisational realities, such as crisis-triggered learning and organisational change programmes that require knowledge transfer, are not accounted for within the practice-based context-bound view of learning.

This research argues that the acquisition and participation metaphors in the study of organisational learning have important contributions to make to our understanding of the field. However, the full potential of these traditions has been constrained by a lack of dialogue between the two. What I have argued is that although these two traditions have been presented as incommensurable, they can actually be bridged. This thesis seeks to move beyond the ontological stipulations and suggests that learning is a holistic organisational experience that has cognitive and social dimensions. More specifically, the research works towards an appreciation of the situated, dynamic and social processes of more cognitively-oriented activities of knowledge acquisition and dissemination. Central to this understanding is the challenge to offer an interpretive account of the conceptualisation of knowledge acquisition processes. As such, organisational learning is viewed as *improved participation for knowledge transfer and skills acquisition.* The concept of the organisational learning mechanism is offered as a solution to the challenge of bringing the two metaphors together. The discussion in Section 2.3.3 highlighted the significance of organisational learning mechanisms in stimulating the potential dialogue between the two different

perspectives in organisational learning research. This is also a relatively unexplored but extremely useful concept, both in the practical and theoretical senses. A better understanding of the structural and contextual facets of organisational learning mechanisms is extremely valuable for researchers aiming to understand better the factors encouraging productive learning in organisations and the dynamics of capability development through canonical learning events. Case-based qualitative research through an interpretevist lens would provide access to better appreciation of the social and cultural context within which learning mechanisms are ingrained.

2.4.3. Conclusion

The conclusions drawn from this two-part literature review indicate the need to work towards a more holistic and integrative perspective of capability development which can encompass the enacted nature of the firm's environment. To build on the extant literature, this research aims to explore the implications of managerial enactments for capability development decisions. More specifically, there is a need to investigate the role of enactment and its implications in terms of the learning dynamics of the organisation in order to gain insights into the holistic experience of capability development.

In the light of the literature review conducted in this chapter and the research issues that this theoretical analysis has generated, the guiding questions for the research are outlined below. I deem it important at this point to reiterate that since this research takes an inductive approach to studying the issue at hand, the research questions are not deterministic and prescriptive. This means that while I was analysing my data I became interested in exploring, in more depth, some issues that were not necessarily central to the research questions listed below; and besides, while I was analysing my data, I was not searching for definitive answers to these questions. In this sense, my list of research questions below does not represent questions that I was looking for answers to, but rather issues and connections that I was interested in exploring.

(1) How do mature medium-sized organisations respond to changes in their competitive environment in terms of the capabilities that they develop to sustain their competitiveness?
(2) Do environmental changes affect each firm differently? If yes, what is the role of managerial perceptions and organisational enactment in moderating the effect of those?
(3) Are they any internal endogenous antecedents of organisational capabilities apart from external factors well-recognised in the literature?
(4) If we adopt an enactment perspective on the core of organisational theorising, what will be the implications of this in conceptualising the nature and form of capabilities?
(5) What role do organisational learning mechanisms and practices play in the development and evolution of capabilities in the face of changing internal and external contexts of the firm?
(6) What are the potential dynamics between capability development and organisational learning? What is the role of learning in shaping organisational capabilities?
(7) How do the structural and social contexts of where organisational learning happens affect the development and evolution of organisational capabilities?

While exploring these issues the scope and focus of this research includes the following:

(1) A central objective of this research is to explore the nature and process of capability development. In so doing, it takes an interpretive approach. Thus, the objective is not to introduce and explore extant theories. The exploration will be 'grounded' in my interpretation of the data that then can be compared with the extant theoretical literature, which will then contribute towards more wide-ranging theoretical debates.
(2) For the purposes of investigating the nature of capabilities, this research relies on an enactment perspective to make sense of the complex and interdependent relationship between managerial perceptions, the environment and organisational capabilities.

(3) The interpretive stance of this research implies that organisational capabilities will be studied by using qualitative methods based on case-study research. The objective is to obtain rich contextual narratives of what it is like to try to survive in environments characterised by varying degrees of dynamism from the perspectives of organisational members. It is from these accounts that the research will work towards an emergent 'bottom-up' conceptualisation of both organisational capabilities and learning, and the relationship between these two organisational developmental processes. This is a methodological choice which has been seriously overlooked by extant studies of capabilities (Ambrosini and Bowman, 2009; Easterby-Smith et al., 2009).

(4) Another methodological choice which will be elaborated further in the next chapter concerns the choice of organisations to be studied. The participant firms will not be solely from dynamic industries. Including firms from more traditional industries will not only enrich the understanding of the centrality of managerial enactment on capability development, but will also open the concept of dynamic capabilities to theoretical scrutiny.

(5) Schlemmer and Webb (2008) divide dynamic capabilities into three sub-categories: first, learning and building resources; second, integrating internal and external resources; and third, reconfiguring resources. Since my interest lies mainly in linking learning mechanisms for developing organisational capabilities, this research focuses specifically on learning and building resources, while the two subsequent categories of dynamic capabilities remain beyond the scope of this thesis.

(6) In order to study the learning processes underpinning capability development, this research utilises the concept of organisational learning mechanisms. One of the primary research issues guiding the inquiry is to investigate the structural and social contexts within organisational learning and development. Only once this rich understanding of capability development and organisational learning has been achieved will it be possible to put forward any suggestions as to how these processes can be managed and facilitated.

CHAPTER 3
RESEARCH METHODOLOGY

3.1. Introduction

The previous two chapters explained why the phenomenon of capability development is an important and underdeveloped perspective for studying firm competitiveness and innovation. They also illustrated that the concepts of organisational capabilities and organisational learning have been formulated with the help of various research approaches and techniques. The following discussion will consider how one goes about studying these phenomena and, in doing so, will demonstrate that the explication of a research methodology involves more than confronting questions about what to study, such as what the unit of analysis will be, and how to study it. It explains which procedures will be followed while collecting the necessary data, which involves a much more challenging task of choosing a *language of investigation* that corresponds with researchers' beliefs and is suitable for exploring the focal question(s) (Alvesson and Skoldberg, 2000). This entails confronting interdependent relationships between important issues of ontology, epistemology and methodology through exploring, explicitly, the philosophical assumptions that guide and shape such choices.

The aim of this chapter is to find an ontological and epistemological position that sits comfortably with my personal beliefs, the way I conceptualise knowledge (Higgs, 2001) and with the needs and circumstances of the research itself (Punch, 1998). I need to ensure that these choices are not made implicitly or merely *by default* (Easton, 1995) but rather through revealing my stance with regard to the philosophical paradigm I adopt and how this informs ontological, epistemological and methodological choices. On a more practical level, this chapter will illustrate how the research has been designed, including further determinants guiding the logic of enquiry and the case selection criteria. The discussion will then move onto the strategies and methods that were employed to collect primary interview data and how these data were analysed and interpreted.

3.2. The Research Stance

Although research interests are idiosyncratic and even personal, one aspect of research that divides or unites research practice is the particular *paradigm* within which researchers associate themselves. First introduced by Thomas Kuhn in 1962, a paradigm refers to "the entire constellation of beliefs, values, techniques, and so on shared by the members of a given community" (Kuhn, 1970: 175). Thus, as Kuhn observed, there is no paradigm-free way of looking at the world. Guba and Lincoln (1994: 105) indicate the centrality of paradigms in academic practice and in shaping research methodology:

> Questions of method are secondary to questions of paradigm, which we define as the basic belief system or world view that guides the investigation, not only in choices of method but in ontologically and epistemologically fundamental ways.

The construction of a research methodology can be viewed as a progressive process that evolves from one's personal values and beliefs regarding both how reality is viewed and, subsequently, how knowledge can be generated. The paradigm we hold to be true makes us look at the same thing at the same time and see it differently from others (Bochner, 2002). That is not to say that the proponents of different paradigms cannot communicate and that different paradigms are completely incommensurable (Kuhn, 1970), but the choice of paradigm determines the vocabulary and interpretive methods a researcher chooses to use; only after becoming aware of these issues, can a researcher devise a suitable strategy for conducting her study.

Because there is no single universal paradigm that has been established to produce valid knowledge, there is no right way of doing research (Bochner, 2002). If there is no single unanimously agreed way of approaching a study, finding a particular paradigm that sits most comfortably with one's ontological beliefs is a highly personal matter. Certain paradigms just seem to make more sense to certain researchers and intuitively feel like the path to pursue. But it is the researcher's duty to be clear about the particular paradigm that informs their approach (Guba and Lincoln, 1994) and to ensure that philosophical choices are not made implicitly or *by default* (Easton, 1995).

Guba and Lincoln (1994) identify four prominent paradigms: positivism, post-positivism, critical theory and constructivism. These paradigms can be placed on a philosophical continuum, ranging from positivism to more radical forms of idealism (Desphande, 1983). It would appear that positivism, the dominant paradigm that has guided most research until quite recently, is now viewed as a monolithic perspective when set against new paradigms that have emerged and differentiated themselves. Some scholars are more vocal in their attack and rejection of positivism, particularly proponents of constructivist paradigms, who tend to stand in direct opposition to the main tenets of positivism (Denzin and Lincoln, 1994).

3.2.1. The Ontological Stance of the Research

As a consequence of existing differences in terms of basic belief systems between positivist and constructivist paradigms, each paradigm subscribes to substantially different ontological beliefs and provides extremely different answers to questions regarding the 'nature of reality', i.e. how reality is conceptualised and understood. Positivist and post-positivist paradigms ascribe to some form of realist ontology, resting on the belief that there exists an external objective reality which can be observed and explained through empirical observation and experiments, ultimately leading to universally generalisable findings that hold true regardless of spatial and temporal boundaries. Distinct from the naive realist ontology adopted by positivists who believe that all-encompassing reality can ultimately be understood by scientists and researchers, post-positivists adopt a critical realist ontology; they recognise that the one true reality existing 'out there' can only be imperfectly apprehended by researchers "because of basically flawed human intellectual mechanisms and the fundamentally intractable nature of phenomena" (Guba and Lincoln, 1994: 110).

In contrast to positivists and post-positivists, for researchers believing in constructivist paradigms, there is no reality existing out there, independent of people. Reality is a subjective and contextual creation and in this sense it is not unique, "it is a world that originates in their thoughts and actions, and is maintained as real by these" (Berger and Luckmann, 1967: 13). As Berger and Luckmann succinctly put it:

> What is 'real' to a Tibetan monk may not be 'real' to an American businessman. The 'knowledge' of the criminal differs from the 'knowledge' of the criminologist. It follows that specific agglomerations of 'reality' and 'knowledge' pertain to specific social contexts. (Berger and Luckmann, 1967: 15).

"The man on the street does not ordinarily trouble himself about what is 'real' to him … He takes his 'reality' and his 'knowledge' for granted" (Berger and Luckmann, 1967: 14). A researcher cannot do this. Every researcher has to confront these paradigmatic and ontological dilemmas when undertaking a research study and must come to a decision regarding her personal stance towards the nature of reality. In terms of this thesis, I adopt a social constructivist ontology. I believe that the degree and support given capability development for innovation and the activities and efforts carried out to create and maintain a certain degree of competitive advantage in one organisation are the result of managers' interpretations and managers' and organisational members' thoughts and actions which are heavily shaped by their individual backgrounds and organisations' past experiences. From this perspective, innovation and competitiveness are socially constructed phenomena limited by the accounts, interpretations and theories of people that actually trigger or prevent innovation happening through their plans shaped by their hopes and frustrations, thus enacting the competitiveness of the organisation they are a part of. This view is in line with what Eichelberger (1989) asserts, "each person has a unique set of experiences which are treated as truth and which determine that individual's behaviour. In this sense, truth (associate behaviour) is totally unique to each individual" (cited in Patton, 2002: 106). Thus, actions and organisational activities leading to firm innovativeness and competitiveness are the result of subjective representations of events that occurred in the organisation's history or events that may occur in the future. As Anderson (1983) asserts, the existence of multiple constructed realities poses difficulties in terms of a single universal 'truth', and thus this idea that research must strive for one 'truth' becomes untenable.

For the reasons outlined above, and for the purposes of this research, I adopt a social constructivist view on 'reality', giving priority to a world constructed by subjective experiences. Adopting a constructivist stance regarding the nature of reality does not only fit my personal perspective and beliefs but is also suitable for the purposes of this thesis. This research is not interested in testing well-known theories of organisational

capabilities to assess the effectiveness of capability development processes and organisational learning; but is rather an attempt to extend and develop existing theoretical knowledge by exploring the nature and process of organisational capabilities from an enactment perspective. The idea of enactment argues that there is no external reality and as such, environment is a function of our perceptions. Using an ontologically constructivist tradition is the natural result of the objectives of this research and the particular angle it adopts.

3.2.2. The Epistemological Stance of the Research

Aligning oneself to a particular ontological stance has implications for epistemological concerns. It is precisely the existence of an observable universal reality claimed by the positivist paradigm that allows positivists to argue that they develop accurate empirical knowledge achieved through systematic detached observations free of individual bias and subjective interpretations.

More constructivist epistemologies, however, highlight that observation and interpretation are not separate processes, as it is not possible to observe social phenomena without making any associations to personal knowledge and one's repertoire of experience. It is argued that what one is seeing is only made possible by making use of perceptual filters and associating the object of investigation with personal inherent knowledge. Constructivism is criticised by positivists for being value-laden and subjectively biased; however, as much as they insist on the researcher's disengagement from the object of investigation, they themselves concede that the researcher cannot have an absolutely objective position towards knowledge (Pleasants, 2003). Therefore, it seems that aligning to a more epistemologically positivist stance would not grant this research any greater objectivity. If being completely objective in one's observations of a particular phenomenon is impossible, I cannot claim to be developing genuine knowledge leading to revealing 'truth' about the 'real' world and what is known by me, as the research is created through a personal and interactive relationship between me and the object of my investigation. The way the knowledge is generated between the researcher and the researched is, from a constructivist standpoint, in sharp contrast to the representation of the

researcher as neutral impartial observer, as envisaged by positivists. While positivists assume "the investigator to be capable of studying the object without influencing it or being influenced" (Guba and Lincoln, 1998: 204), a more plausible representation of the researcher is provided by constructivist epistemology – the researcher is the interpreter of the constructions of the researched, a phenomenon captured succinctly by the term *verstehen*. [1]

Because the assumption held by the positivists that the reality 'out there' can be captured through systematic and bias-free procedures seems hardly to be transferable to the social world, which is fluid, context-specific and enacted by social actors who are as complex as the researcher herself, this study focuses on *socially constructed interpretations,* such as descriptions, opinions and reflections, and this indicates that it is more appropriate to use qualitative tools of investigation.

3.3. Towards a Phenomenological Understanding of Organisational Capabilities and Learning

Because the term phenomenology has numerous meanings at philosophical, paradigmatic and epistemological levels (Patton, 2002), it is essential to be clear as to the phenomenological commitments underpinning this research.

As a philosophical tradition, phenomenology was founded in the early years of 20th century by Edmund Husserl. Phenomenology, in Husserl's conception, is primarily concerned with the systematic reflection on and analysis of the structures of consciousness, and the phenomena that appear in acts of consciousness. Even though I, as a junior scholar, might have benefited from a thorough exploration of the main philosophical tenets of phenomenology, the primary concern of this thesis is with understanding practical implications that the phenomenological assumptions

[1] Verstehen is a German word that does not translate directly into English but is loosely synonymous with "understanding" or "interpretation". Associated with the writing of Max Weber (1864-1920), verstehen is now seen as a concept and a method central to a rejection of positivistic social science. Verstehen refers to understanding the meaning of action from the actor's point of view. In the social sciences, it refers to an interpretive or participatory examination of social phenomena. It is entering into the shoes of the other, and adopting this research stance requires treating the actor as a subject, rather than an object of your observations. It also implies that unlike objects in the natural world, human actors do create the world by organising their own understanding of it and giving it meaning.

have for how this research is conducted method-wise. Hence, this section is primarily concerned with the practicalities of the phenomenological method.

3.3.1. The Phenomenological Method

Since the objectives of this work are to explore the nature and process of organisational capabilities from an enactment perspective and to explore the interdependent and contextual relationship between managerial perceptions, the enacted environment and organisational capabilities, this research relies firmly on the research participants' accounts and perceptions for theory-building purposes. This thesis is not interested in providing predictive knowledge through the construction of statistically generalisable results, which express regular, linear relationships that exist in the world. Such a process of "context stripping" (Guba and Lincoln, 1994) is the antithesis of what the study is trying to achieve. With its commitment to build a better understanding of contextual, subjective nature of capability development, this thesis takes a "phenomenological perspective" (Patton, 1990). As such, phenomenology is used only to philosophically justify the methods of qualitative inquiry as legitimate.[2] For example, existential phenomenology, as a philosophical movement, focuses on the human-being-in-the-world and seeks to describe as it is 'lived' (Thompson et al. 1989). The *methodological implication* is that; the researcher should aim to describe a phenomenon as it emerges in some context(s) and the theory to be developed should recognise the current experiential context in which the phenomenon is situated.

At this point it is deemed important to note that this thesis is not interested in producing rich and thick descriptions of participants' lived realities, *per se*, as is the case with more ethnographically and hermeneutically oriented studies. In the first instance, it is deemed important to provide sufficient phenomenological depth to enable readers to achieve a certain level of understanding of the context that the

[2] In his overview of phenomenology Patton (1990) makes and important distinction between a "phenomenological perspective" and a "phenomenological focus". In short, a phenomenological perspective involves using phenomenology to philosophically justify the methods of qualitative inquiry as legitimate. A phenomenological focus, on the other hand, involves getting as the essence of the experience of some phenomenon by providing descriptions of "what people experience and how it is that they experience what they experience" (Patton, 2002: 107). In terms of this research, a phenomenological perspective is adopted.

experience is situated in. [3] But in order to avoid to create a theory that is both credible and useful for practising managers, theoretical proposition constructed in the latter parts of this thesis will be deeply enmeshed within, but also extend beyond, the immediate context of the six organisations studied. Put simply, the primary aim of this research is to go beyond the simple description of experiences and personal interpretations of the subjects and work towards a wider explanation of the phenomenon in question. Its main concern is to produce contextually-situated theories built from these descriptions and to generate analytically transferable conclusions, rather than capturing the process of interpretation of the subjects.

3.3.2. The Qualitative Method and Case-Study Research

Just as the decisions made at the ontological level influence one's epistemological stance, so those previous decisions affect the subsequent choice of methodology. The commitment to a constructivist paradigm purposefully rejects positivist methods, while quantitative research is better complemented by qualitative methods. Even when one opts for neglecting this evolutionary process of research design and opts for "methodological appropriateness … recognising that different methods are appropriate for different situations" (Patton, 2002: 72), utilising qualitative methodologies is most suitable in these circumstances where the primary aim is to explore a new topic with a new group of subjects while generating new theories (e.g. Collis and Hussey, 2003; Creswell, 2003). In fact, Bogdan and Taylor (1975) argue that only qualitative methods enable researchers to develop a phenomenological understanding of the object of investigation.

As discussed in Chapter 2, the capabilities literature has been dominated by quantitative studies (Ambrosini and Bowman, 2009; Easterby-Smith et al.,2009) aiming to test or verify theories and explanations by relating some pre-defined variables with the hypotheses being tested (Creswell, 2003). As such, researchers are predominantly interested in confirming or falsifying the existence of enduring attributes of innovative firms through hypothesis-testing methods and establishing the 'determinants' of 'dynamic' capabilities through sophisticated positivistic methods

[3] This more phenomenological approach to analysing and presenting the data is particularly apparent in Chapter 4.

relying on mathematical models and surveys. By employing statistical techniques and procedures, they try to measure the strength of the relationship between some independent variables such as R&D expenditure, demographics of the workforce or the degree of centralisation of the organisation with some dependent variables which are considered as indicators of dynamic capabilities; these might include the share of new products in the product portfolio, the profit generated from new products as a percentage of gross profit, or the number of patents that the organisation owns. But capabilities and learning in the organisational context are very dynamic and highly contested topics. Lastly, as Hartley (2004: 325) argues, quantitative methods can be too static to capture the ebb and flow of organisational activity especially where it is changing very fast", thus utilising qualitative methods appear to be more appropriate. Quantitative research methods employed mainly by the positivistic paradigm, such as surveys, are a very reductionist and static way to capture the micro level and the level of everyday activities of organisations trying to establish and maintain competitive advantage which would then lead to the development of organisational capabilities (Curran and Blackburn, 2001).

As was the case with the ontological and epistemological choices made previously, the methodology used to carry out this particular research was not chosen arbitrarily. On the contrary, methodological choices evolved from the ontological and epistemological commitments of the research. But no matter how strong the philosophical foundations of the research are, there are other determinants influencing the choices to be made in terms of methodology. In this respect, Bryman (1988) mentions that there are 'technical' as well as 'epistemological' justifications for using qualitative methods. The choice of using qualitative methods should be aligned with the researcher's paradigmatic commitments and be 'useful' for researching the phenomenon to be studied (Symon and Cassell, 1998). Therefore, it is important to recognise that methodological choices are not entirely pre-determined, based on one's ontological and epistemological commitments, but are also shaped by the research objective and the nature of the phenomenon under study.

In this regard, case-study research was deemed to be suitable. At this point it is important to note that different types of case study are used for very different purposes and are appropriate for different research objectives. As Yin (2003) explains, they do

not need to be used for exploratory purposes; there are case studies that are designed for descriptive and just for explanatory purposes as well. Thus, case-study research is not necessarily utilised for theory-generation purposes; it is used to test theory as well (Gill, 1995). In this respect, the particular application of case-study research is shaped by epistemological commitments and the objectives of the research. For the purposes of this research, following the guidance of Stake (1995), a qualitative approach was adopted to design this case-study research aimed at understanding complex phenomena within their respective contexts.

Case-study as a qualitative research method is seen as useful because the primary aim of my research is to explore a new topic with a new group of subjects for the purpose of generating new theory (Collis and Hussey, 2003; Creswell, 2003). The exploratory nature of my research makes a case study approach particularly appropriate, because there have been few earlier forays taking an enactment perspective to explore organisational capabilities that I can refer to and so, in this sense, the emergent theory is still evolving (Collis and Hussey, 2003; Eisenhardt, 1989; Hartley, 2004). Case-study research is advocated as the preferred research strategy when investigating a contemporary phenomenon within a real-life context (Yin, 2003).

From a technical standpoint, case-study research also provides a solution to overcome some problems associated with researching and targeting small- and medium-sized enterprises (SMEs) mostly not addressed by survey-based quantitative methods. SMEs are a very heterogonous group of organisations operating in a wide range of sectors with extremely different sector characteristics, which has implications for their size and financial structure among other things. Definitions of SMEs are highly sector-specific, depending on the nature of business that organisations are in. Because there is no widely accepted well-established definition of an SME (Curran and Blackburn, 2001), the sampling of SMEs can be very problematic for survey methods. Can we include a medium-sized backstreet garage, in a small Turkish town employing 10 blue-collar workers with an annual turnover which is the equivalent of no more than a couple of tens of thousands pounds, with a medium-size original equipment manufacturer, with 200 blue-collar workers plus tens of engineers and professional managers with millions of pounds of annual turnover, in the same sample (Curran and Blackburn, 2001)? How can we categorise these firms in the same sample? Is it

sensible to include small cafés, restaurants and hotels in the same sample because all of them are operating in the services industry? Survey methods' numeric sampling criteria will lead to studying a diversity of organisations that do not have much in common, just because their size and annual turnover fall within a certain range. Case-study research is more sensible for less tangible trickier definitions of an SME.

Moreover, Curran and Blackburn (2001) state that low response rates are typical for SMEs, thus creating a bias towards understanding their problems; and so it would be very difficult to end up with a balanced sample where respondents from all sectors and belonging to all size and turnover ranges can be equally represented. Case-study research offers a solution to these problems as it provides full control over the selection of participants, flexibility in data collection, and opportunities to integrate new thoughts and new ideas that emerge as a result of increased understanding of each case during exploration of the research problem (Eisenhardt, 1989).

3.3.2.1. Building theory from case-study research

Another controversial issue regarding case-study research is whether and how to develop a theoretical framework prior to engagement in the field. At the one end of the spectrum, it is argued that case studies should involve a rich theoretical framework and a specific hypothesis (Yin, 2003). At the other end of the spectrum, researchers such as Hartley (2004) and Mintzberg (1979) advocate induction and insist that a tentative initial framework is adequate.

A focus on inductive theory building was considered appropriate for this research, given that the objective is to generate theories that relate to the specific context of mature medium-sized enterprises, following Eisenhardt's (1989: 536) suggestion:

> Theory-building research is begun as close as possible to the ideal of no theory under consideration and no hypotheses to test … Thus, investigators should formulate a research problem and possibly specify some potentially important variables, with some reference to extant literature. However, they should avoid thinking about specific relationships between variables and theories as much as possible, especially at the outset of the process.

As Eisenhardt (1989) and Lincoln and Guba (1985) concede, it is impossible to start with "a clean theoretical slate" (Eisenhardt, 1989: 536) and researchers do not engage in fieldwork empty-handed and empty-headed. This is especially true for doctoral researchers since we are strongly exposed to the extant literature in our first years while attempting to formulate research questions through comprehensive literature reviews. Within the confines of how doctoral research is structured, I have tried to keep as close to naturalistic inquiry as possible. I have done this by purposefully not developing a research framework and by not reading massive, substantive literature on RBV, dynamic capabilities or organisational learning, by generating broad research questions prior to the fieldwork, and by purposefully ignoring extant theories on capabilities while analysing the research data. The wider reading of the literature was constrained to allow me to have a better grounding in the theoretical constructs to be studied, but also to keep me naive enough to avoid shaping any hypothesis prior to entering the field. The statement of Lincoln and Guba (1985: 203) accurately reflects the way research evolves from research design to data analysis, "the research design must therefore be 'played by ear'; it must unfold, cascade, roll, emerge". Inspired by the seminal work of Lincoln and Guba (1985), the approach of this research follows the guidelines of "naturalistic inquiry". More specifically, the research is grounded in the data, in the sense that theories emerge from participants' accounts.[4]

3.3.2.2. Validity of qualitative data

From a positivist perspective, case-study research is seen as useful only if the findings explored through case research are 'validated' by more quantitative methods. Choosing and solely relying on qualitative methodologies for research is often judged to be not 'scientific' enough, and is not perceived as leading to significant genuine contributions to knowledge. Therefore, a fundamental issue is how qualitative

[4] At this point, it should be noted that the word 'grounded' does not refer to the grounded theory approach developed by Glaser and Strauss. Although I am aware of the methodological debates in the literature relating to the grounded theory approach, the word 'grounded' in the context of the data analysis procedures used in this research means that an inductive approach was adopted for theory development purposes. "Grounded theory" as framed by Glaser and Strauss was only used at the stage of scoping the research and collecting data, meaning that I have not read considerable substantive literature about the resource-based view, dynamic capabilities or organisational learning processes prior to the field research. From this respect, I moved forward from my disciplinary perspective into the field with few provisional concepts and tools.

researchers defend their stance and show that the accounts of the phenomenon being studied are valid and reliable.

In particular, criticisms centre on qualitative methods' inability to produce truthful findings. Although qualitative methods are more appropriate to focus on the micro-level because they do so by accessing the research participants' accounts and understanding of the phenomenon in question, it is argued that they lead to a partial and, worse, biased understanding of reality. But "partial or not, biased or not, such accounts constitute *their* reality, and, arguably, it is the way they view the world which shapes their future actions" (Chell, 2004: 58). This social constructivist idea has implications for the truthfulness of qualitative ideas as "what is defined or perceived by people as real is real in its consequences" (Thomas and Thomas, 1928, cited in Patton, 2002: 96). But apart from this, at the deepest level, the perceived subjectivity and unreliability of qualitative methods is a reflection of clear ontological differences, as highlighted previously in this chapter. Thus, this research works on the assumption that "the possibility of attaining objectivity and truth in any absolute sense has become an untenable position" (Patton, 1997: 149) and believes that the conventional quality assessment criteria (internal validity, external validity, reliability and objectivity) are inconsistent with and unsuitable for the approach of this research (Lincoln and Guba, 1985).

Bochner (2002) argues that a multiplicity of goals calls for a multiplicity of standards for evaluation. This argument makes sense, considering the fact that the evaluative criteria stipulated by the positivistic paradigm are manmade, they are simply "social products created by human beings in the course of evolving a set of practices to which they (and we) subsequently agree to conform" (p.261). Because different paradigms make different knowledge claims, Lincoln and Guba (1985: 301) developed a new set of alternatives "that stand in more logical and derivative relation to the naturalistic axiom". The terms 'credibility', 'transferability', 'dependability' and 'confirmability' are offered as equivalents to the positivist measures of internal validity, external validity, reliability and objectivity, respectively. By integrating Lincoln and Guba (1985)'s elaborated work on quality assessment criteria with the discussions of Patton (2002), Stake (1995) and Yin (2003), a new set of criteria is formed to ensure the quality of this research. This is presented below, in Table 3.1.

Positivist Paradigm's Criteria		**Constructivist Paradigm's Criteria**		
Criterion	***Essence***	***Criterion***	***Essence***	***Techniques utilised to ensure fulfilment of the criteria***
Internal validity	Establishing confidence in the truthfulness of findings	*Credibility*	Ensuring that the material presented is a trustworthy account of the phenomena as discussed by the interviewees	- Writing memos right after the interviews - Bracketing out my interpretations under the 'Reflections' sections while writing case narratives - Subjecting the research material to a peer for scrutiny
External Validity	Ensuring that the inquiry can be applicable and statistically generalisable to other contexts	*Transferability*	Using previously developed theory as a template to compare the empirical results of multiple case studies leading to analytic/naturalistic generalisations	- Designing a multiple-case research study to ensure the replicability of results - Providing rich and detailed descriptions of the contexts
Reliability	Determining that findings can be replicated in the same or similar contexts	*Dependability*	Making explicit in what circumstances the argument is valid	- Providing rich and detailed descriptions of the contexts so that future researchers can make an informed judgement about the congruency (degree of fit) of my context and their contexts - Embracing rival cases in the analysis of the data
Objectivity	Ensuring minimum involvement and influence of the researcher	*Confirmability*	Acknowledging subjectivity and exercising reflexivity about the research process to take into account the researcher's perspective	- Auditing decisions made and making predispositions explicit in the writing

Table 3.1. Criteria for Assessing Research Quality and Techniques to Ensure Quality

Since qualitative research is based on the accounts of the research participants in order to develop or extend a theory of the phenomenon being studied, a variety of opinions and the occurrence of multiple realities is an expected outcome of a qualitative research process, because research participants have different perceptions of reality. However, it is important to recognise that these different "constructions are not more or less 'true,' in any absolute sense, but simply more or less informed and/or sophisticated." (Guba and Lincoln, 1994: 111). This encompasses the first implication for the validity of qualitative data, as the data are not perceived to be a report of reality but are "displays of perspectives and moral forms" (Silverman, 2001: 112). Hence, the aim of qualitative research is to establish a trustworthy and credible account of the phenomenon in question (Lincoln and Guba, 1985).

The second implication deals with the issue of the generalisation and applicability of research results. Since there is no unified representation of the phenomenon, the multiplicity of perspectives inherent in qualitative data makes the production of a generalisable standardised set of results an impossible ideal. The pressure on researchers to ensure the applicability of results to a different population certainly creates frustration on the part of qualitative researchers when confronted with the impossibility of establishing universally generalisable results. But from a philosophical standpoint, because "human action is constructed, not caused, … to expect Newton-like generalizations describing human action, as Thorndike did, is to engage in a process akin to 'waiting for Godot'" (Cronbach, 1982, cited in Donmoyer, 1990: 178). If a researcher tries to achieve this she has to eliminate all situational effects by having huge random samples that will, in the end, nullify the context in order to find out the most general cause and effect relationship when generating a "grand theory" (Stake, 1995). Even if a researcher can do that, there will always be differences from context to context, and even a particular context can change drastically over time, so generalisations can only hold true with a degree of probability (Lincoln and Guba, 2000). In the social sciences it is improbable to draw conclusions that will be true forever, regardless of the context being studied – and nullifying the context is not preferable for me. If the real world is constantly changing and all findings will be provisional (Curran and Blackburn, 2001), then it is impossible for any research to find a definite pharmacopeia for the problems faced by organisations. But still, from a technical standpoint, I think that whether you call it a generalisation or not there is a major barrier to any kind of research in seeking to ensure the accumulation of knowledge in a given discipline. Without recognition of this issue, the body of research in any given field will only be discrete pieces of knowledge incapable of providing help to anyone.

Although qualitative research is generally accused of not leading to generalisable results, Yin (2003) points out that these criticisms are the result of a misleading assumption that only studies leading to statistical generalisations are generalisable. Yet, case-study research is not sampling research; so there is no possibility that the results can be generalised from a sample to a population. It is possible to achieve analytic generalisation in which "a previously developed theory is used as a template with which to compare the empirical results of the case study" (Yin, 2003: 32).

Multiple case studies have actually been found to be quite high in terms of the prospect of "analytic generalisation", as replication may be claimed at the end of the research (Yin, 2003). Stake (1995) goes on to argue that the process of taking the results of one case study and applying them to understand another similar situation is a natural one, what he calls "naturalistic generalisation". According to him, with the help of their tacit knowledge about other situations resulting from experience, individuals can make explicit comparisons between a situation new to them and other situations that they know about (Stake, 1995). And case studies are powerful tools for building useful naturalistic generalisations if the information is provided in a form such that researchers experience it to the extent of their understanding and compare it to different situations (Lincoln and Guba, 2000).

The replicability of findings depends on the degree of 'fit' between my context and other contexts that future research will focus on (Lincoln and Guba, 2000). If the two contexts are similar, then the results can be transferable from one context to the other – what Lincoln and Guba (2000) call "fittingness". It is important to provide sufficient description about the context that I derived my results from, so that future researchers can make informed judgements about the congruency of my context and their contexts (Lincoln and Guba, 2000). Goetz and LeCompte (1984, cited in Schofield, 2000) place similar emphasis on the value of description as a tool allowing the applicability of the results of one study to other situations, providing 'comparability' and 'translatability'. To achieve 'comparability', detailed descriptions of the concepts, units of analysis, cases and research setting are required, while 'translatability' refers to more philosophical and technical aspects of the research where the researcher makes clear her theoretical stance and provides a detailed account of the research methods and techniques employed (exactly the purpose this chapter serves) (Goetz and LeCompte, 1984, cited in Schofield, 2000).

On these grounds, although it is not possible to derive law-like generalisations, case studies can speak to other situations if they provide sufficient thick descriptions, rival explanations and theoretical replication through multiple cases included in the theory-building efforts. The replicability of research findings is linked to issues of reliability from a positivist paradigm (Collis and Hussey, 2003). Certainly, it is very difficult for qualitative researchers to replicate findings precisely by following the same

procedures as, by definition, qualitative research involves a significant level of interpretation coloured by the background and beliefs of individual researchers. So even if a researcher develops a case study protocol, as Yin (2003) suggests, and even if future researchers go to the same firms and ask the same questions to the same individuals, the results of the two studies will probably be different because of the differences resulting from the differing perceptions, interpretations and previous experience of the researchers. Additionally, by definition, the repeatability required by the reliability criterion assumes that there is an unchanging reality out there. But what is out there is actually changing; thus, from this perspective, the reliability criterion can never be fully achieved (Lincoln and Guba, 1985). For these reasons, Lincoln and Guba (1985) introduced 'dependability' as an analogue to reliability in which the aim is to take into account the factors for future instability in the research findings. Including multiple cases in my research study is the first step to test dependability, in order to see whether different cases, leading to one coherent resultant theory, predict similar or contrasting results with explainable reasons on different occasions (Yin, 2003).

The high degree of involvement of the researcher in the research process, as discussed above, takes us to the fourth and final implication of qualitative research. While low researcher involvement and objectivity are very important attributes for high-quality research for positivist researchers, researchers operating from a social constructivist paradigm do not claim objectivity from a philosophical standpoint, because there is no objective social reality and the researcher is merely representing "multiple realities" (Lincoln and Guba, 1985). From a technical standpoint, "qualitative research is fundamentally interpretive" (Creswell, 2003: 182) because interview data are "mutually constructed" (Silverman, 2001: 87) and "the findings are literally created" (Guba and Lincoln, 1994: 111). The researcher is a part of what is being researched and thus contributes to the construction of knowledge (Remenyi et al., 1998). During an interview, the researcher interprets the interviewee's account to make sense of it, and such interpretation guides the flow of the interview. These interpretations are subject to further interpretation at the data analysis step as the researcher tries to link the data to some academic theories, personal theories or other ideas (Alvesson and Sköldberg, 2000). Regardless of the subjectivity ingrained in the qualitative research process, Bochner (2002) and Davey and Liefooghe (2004) argue that the quality of a

piece of research does not lean upon its 'objectivity' but upon the openness and honesty of the researcher with regard to her ideological position, actions, feelings and limitations. There is no need to escape from prejudgements and prejudices – it is impossible to escape from them because they are the by-products of traditions that shape whom we are and how we understand the world; it is enough if one understands that there is no escape and engages with one's biases (Schwandt, 2000). Even though ensuring objectivity is not an option, the credibility of the research process is still within reach through the systematic nature of inquiry, controls for errors, consideration of personal cognitive predispositions and the openness of the researcher (Alvesson and Skoldberg, 2000).

In summary, to make sense of the phenomenon being studied, qualitative researchers must engage with the participants and play an active role in developing credible representations of the empirical materials based on the accounts they are presented with. Generating such rich and substantive theories, that are produced inductively, requires a research design that creates thick descriptions and allows for grounded theories that emerge from the data during the analysis stage. The following three sections will therefore outline the design considerations and data collection and analysis methods that have the capacity to produce such a detailed investigation of the phenomenon.

3.4. Research Design

If the preceding discussion has provided a sound theoretical base to explore the nature of capability development in organisations and to extend existing theory on the relationship between organisational capabilities and learning, this section will explain more practical aspects about how the research was carried out. In any study practical choices must be made. These concern the research objective and the research instruments to be used. These choices, however, are never obvious. The ontological and epistemological position informs some of the methodological choices but the degree of freedom available to me was not without restrictions. Time, money and access to research subjects (in my case firms) proved to be significant limitations. There is, however, little recognition of this in the academic discourse which often

ignores the fact that research costs time and money, and even if there are no resource limitations organisations may not be willing to co-operate (Buchanan et al., 1988). The process of research design is fraught with conflicts and dilemmas, and both fundamental and opportunistic choices have to be made. Or, as Homans (1950) puts it, "Methodology is a matter of strategy, not of morals. There are neither good nor bad methods but only particular circumstances in reaching objectives on the way to a distinct goal" (cited in Grunow, 1995: 95). I am sure that Homans never meant to imply that the contingent and strategic aspect of choice of methods is indicated as amoral. I mean that the choice of methodology is contingent on the context and choices will be bound by budget and time constraints, the difficulties involved in case selection and the vagaries of gatekeepers. And Homans is right in one respect; the researcher's thinking about the desirable methods should not be too rigid, depending on the context, the researcher would probably need to change her ideas and methods during the course of the research. This research was no exception, several times I found myself in a position where I had to strike a balance between what was desirable and what was attainable.

> It is desirable to ensure representativeness in the sample, uniformity of interview procedures, adequate data collection across the range of topics to be explored, and so on. But the members of the organisations block access to information, constrain the time allowed for interviews, lose your questionnaires, go on holiday, and join other organisations in the middle of your unfinished study. In the conflict between the desirable and the possible, the possible always wins. So whatever carefully constructed views the researcher has of the nature of social science research, of the process of theory development, of data collection methods, or of the status of different types of data, those views are constantly compromised by the practical realities, opportunities and constraints presented by organisational research. (Buchanan et al., 1988: 53)

This research had to confront this dilemma as well, and the research design presented in the following sections clearly shows the nature of such compromise. I found it important and commensurate to make all design choices explicit, especially when I made myself vulnerable by moving away from the desirable.

3.4.1. Research Cases: Criteria and Selection

The first important decision regarding the design of the research and affecting the selection of cases was the contentious issue of how to define medium-sized firms that are the objects of investigation of this study. SME definition is generally based either on the numbers of people employed or annual turnover. Annual turnover is a very problematic basis on which to define SMEs for very apparent reasons. First, unless these firms are registered as public firms they do not have to make their turnover public, so the researcher has to ask the firm to reveal its turnover. But firms may be reluctant to share this information with outsiders. More importantly, some firms may themselves not know their exact turnover. Managers may be more interested in profit margin or know only some figures for tax-paying purposes; hence, they may lack precise data about their annual turnover, even if they want to cooperate with the researcher.

Definitions based on number of employees are more straightforward in this respect, but they have their own problems. To start with, there is no agreement on the threshold, neither in the world, nor in Turkey. While the OECD classifies firms with 10-99 employees as small and those with 100-499 firms as medium, according to the EU a small enterprise has 10-49 employees and a medium one has 50-249 employees. In Turkey there is no agreement, even at the state level. While the Under-Secretariat of the Treasury adopts the EU definition, the State Institute of Statistics and the State Planning Organisation classify firms with 10-49 employees as small and those with 50-99 employees as medium. On the other hand, KOSGEB (Small and Medium Sized Enterprises Development Organisation Foundation of Turkey)[5] adopts a different definition whereby firms with 1-50 employees are categorised as small enterprises and those with 51-150 employees are categorised as medium enterprises.
The Bolton Report of 1971 provides what may be the most comprehensive and highly cited definition of an SME:

[5] KOSGEB, the Small and Medium Scale Enterprises Development Organization Foundation, was established in 1990 under the auspices of the Ministry of Industry and Trade. It is a non-profit semi-autonomous organisation which is responsible for the growth and development of SMEs in Turkey. The primary objective of KOSGEB is to improve SMEs' share of and efficiency in the Turkish economy and to enhance their competitive capacity. Its website is available at: http://www.kosgeb.gov.tr/.

> Firstly, in economic terms, a small firm is one that has a small share of the market. Secondly, an essential characteristic of a small firm is that it is managed by its owners or part owners in a personalised way, and not through the medium of a formalised management structure. Thirdly, it is also independent in the sense that it does not form part of a larger company and that the owner managers should be free from outside control in taking their principle decisions. (Bolton Report, 1971, cited in Curran and Blackburn, 2001: 13)

Curran and Blackburn (2001) criticise this definition, arguing that not all SMEs need to have a small market share. This is because some SMEs, especially in the high-technology sector, may actually hold big shares in their market while some other SMEs, such as small garages in distant towns, may also have big shares of their market – depending on how you define the market – as they do not face direct competition for their customer base in the town that they operate in. However, in this research, I did not include any SMEs from any sector such as high technology as these sectors have attracted significant attention from other researchers. All the participant organisations compete on a national or even a global scale, thus no local firms were considered for data collection purposes. Moreover, as I will discuss under the research design section, as a result of my design I did include firms so that at least two of them operate in the same geographical region, meaning that each would certainly have at least one direct competitor.

On these grounds, a medium-sized firm for this specific study is defined as: *Any independent organisation holding a relatively small share of the national market for its line of business, employing around 50 to 200 employees that are managed in a personalised way, with few formal, professional management structures.*

The size of the firm was not the only consideration when selecting the participant organisations. I was also interested in the age of the firm. Since this research is studying capabilities that are developed by the organisation as a response to changing competitive environments and the role of learning in capability development and innovation, I was interested in including firms that have been competing successfully for many years. I assumed that this would be an indication of the existence of certain organisational capabilities that had enabled them to remain competitive on the business landscape for a significant period. For this reason, I further delimited the pool of possible medium-sized firms that could participate in my research, in order to

include exclusively successful mature firm which have been competitive for two generations or more – i.e. for a minimum of 25 years. I assumed that mature firms have been in the business for a sufficient period of time and have been able to survive numerous changes in the general business environment and their immediate competitive environment. I also assumed that in order to survive all these changes, they would have gone though a number of organisational renewals in terms of their strategies, operations, structures among many other business aspects which may have necessitated breaking their path dependencies and undergoing a process of 'learning to learn' as they shift from exploitation to exploration (Jones, 2006). I thought that selecting mature firms as my research cases would provide me with plenty of data about innovation and the learning experiences of organisations. I assumed that they must have learned something and developed certain organisational capabilities, whether intentionally or unconsciously, in order to survive and succeed in a constantly changing business context.

I was also interested in conducting a cross-sectoral research study since one intriguing question continued to bother me and had preoccupied me since the day I became familiar with innovation literature: do the same concepts regarding competitiveness and innovation apply to a furniture firm as well as to a pharmaceutical firm? Some scholars will reject this question on a number of grounds. Of course, there are good arguments in favour of sector-specific studies since some success factors are idiosyncratic. Sector-specific environmental characteristics unquestionably have their influence on the characteristics of the organisational capabilities required for competitive success and innovation. But I believe that by studying a number of sectors with varying degrees of dynamism we can not only appreciate the exact influence of sector-specific environmental dynamism, but also reveal some general success factors in relation to competitiveness, capabilities and learning. In order to explore the influence of environmental dynamism on differences in innovative success between organisations (which is explained by *differences in organisational capabilities and organisational learning mechanisms*), it was decided to include firms operating in three different sectors, with varying levels of dynamism, in this study. "Environmental dynamism concerns the amount of uncertainty emanating from the external environment" (Sirmon et al., 2007: 275). Dynamism is reflected by the instability, frequency and amount of change occurring in the environment, including elements

such as industry structure and market demand (Sirmon et al., 2007). The relationship between environmental dynamism and organisational learning is widely accepted by researchers (Dodgson, 1993; Fiol and Lyles, 1995). If the environment changes (e.g. customers change their tastes or the competition acquires a new technology), the organisation must adapt to these changes in order to maintain its competitiveness, which means it must learn. That is why there are many examples of organisational change and learning in high-tech organisations which operate in dynamic and competitive environments, as noted several times before in this research. In assessing environmental dynamism I adopted Eisenhardt and Martin's (2000: 1110-1111) classification:

> Moderately dynamic markets are ones in which change occurs frequently, but along roughly predictable and linear paths. They have relatively stable industry structures such that market boundaries are clear and the players (e.g., competitors, customers, complementers) are well known … In contrast, when markets are very dynamic or what is termed 'high velocity' (e.g., Eisenhardt, 1989), change becomes nonlinear and less predictable. High-velocity markets are ones in which market boundaries are blurred, successful business models are unclear, and market players (i.e., buyers, suppliers, competitors, complementers) are ambiguous and shifting.

Alongside moderately dynamic and high-velocity environments, I added a third category, "slowly-evolving markets", in which, in contrast to moderately dynamic markets, change does not occur frequently and external changes are largely predictable and incremental (Ambrosini et al., 2009). The rate of change and the level of market dynamism in terms of competition and technological development are significantly lower when compared to the other two types of markets.

As discussed in Chapter 2, the idea of enactment is central to this research, which is also in line with the ontological and epistemological stance of this research. Taking all this into account, market dynamism is seen as a function of the managerial perceptions of their external and internal (firm) environment. When selecting cases, market dynamism was assessed according to some external factual data about selected industries but, as will be discussed in Chapter 4, it is entirely possible for managers in 'objectively' dynamic markets to misperceive the need for change simply because they do perceive a low rate of change in the environment. This means that there might be a discrepancy between 'objective' market dynamism and 'perceived' market dynamism. A perceived slowly-evolving industry is an environment where changes

are largely seen by managers to be predictable and incremental. On the other hand, a perceived high-velocity industry is an environment where managers frequently perceive fast-paced changes. Perceived market dynamism eventually and indirectly determines objective market dynamism. If we accept Weick's (1979) argument that environments respond to the interpretations and perceptions of organisational members, it follows that if the majority of organisations in a given industry perceive a slowly-evolving industry, managers will not see a need for change. If the majority of managers in an industry resist change this means that there will be no external change triggers for the remainder of the firms in the industry. And unless the managers of those firms steer internally triggered changes as a result of wide managerial (in)action, the industry will eventually become a slowly-evolving industry and the external triggers of change will disappear.

To find suitable cases I turned to the Turkish market. This was a choice primarily driven by practical issues of finding suitable firms, but it also promised an interesting combination of organisational behavioural patterns and capabilities, given the economic and market situation in Turkey. The Turkish economy is traditionally quite unstable and, with increasing internationalisation since the late 1980s and the recent more recent integration with the European economy, the country is rebuilding its economy. This unstable and rapidly changing environment, which is open to global competition, puts pressure on firms to adjust, adopt, learn and develop continuously. Therefore, by choosing Turkey as my research setting, I ensured the availability of organisational capabilities relevant to competitiveness and learning-related issues.

When I engrossed myself in determining which sectors in Turkey would fit Eisenhardt and Martin's (2000) classification, in order to facilitate my choice process, I started with an assumption. I assumed that the sectors which have a long history in Turkey would have notably more stable and established industry structures when compared to younger ones. From this standpoint, it seemed to me suitable to associate slowly-evolving markets with primary industries, moderately dynamic markets with secondary industries, and high-velocity markets with tertiary industries. Accordingly, I decided to select olive-oil processing, automotive component manufacturing and the tourism industry as representatives of slowly-evolving, moderately dynamic and high velocity markets, respectively. These three sectors not only matched Eisenhardt and

Martin's (2000) sectors of economy classifications but also aroused significant media interest in the last years in Turkey.

Turkey is the world's fifth largest olive-oil producer country in the world, behind Spain, Italy, Greece and Tunisia; and starting with the rush towards healthy living and the healthy ageing trend, consumers have started to develop better awareness of its benefits and uses and the business circle has recognised the potential of investing in branded olive-oil processing and manufacturing. And the automotive industry and component manufacturing sectors are steadily growing, hand in hand. They are the fastest growing sectors in terms of export performance, and they use approximately 50% of the R&D incentives available in Turkey. These sectors, which increasingly hold a place role in the Turkish economy in terms of production capacity, export volumes and employment, are steadily increasing their productivity and capacity with the introduction of new technologies. Finally, the importance of the tourism sector in Turkish economy is well known, along with a steadily improving hotel and tourist infrastructure. An intense race has started between holiday destinations to grab a share of the economic and social profits created by tourism. Probably the most important tool used in this race is the diversification of tourism products achieved by advancing alternative tourism (e.g. ecotourism, adventure tourism, cultural tourism, religious tourism, health tourism) in line with available local resources. Take the case of Izmir, which has a shorter beach season compared to some southern regions of Turkey, such as Antalya, due to its geographical position.[6] In an attempt to stretch the tourist season it is investing heavily in thermal therapy tourism by utilising rich geothermal sources in Izmir and neighbouring towns which, historically, have been seen as a way of alternative healing. Although high-quality geothermal sources have always existed in Turkey, they have been attracting increasing interest in the last decade. There are aggressive promotional efforts to highlight the potential of thermal therapy tourism in the region with some hotels positioning themselves in that market. The latest evidence of these efforts was Izmir's candidacy to host EXPO 2015 and EXPO 2020 [7] with the theme of 'Health for All'.

[6] Izmir is located by the coast of the Aegean Sea in Western Turkey and is approximately 300 kilometres north of Antalya and other southern travel destinations.

[7] EXPO: Expo – once the World Fair – is the generic name used for any of the various large exhibitions held since the mid-19th century. The first International Exhibition is generally considered to have been the one held in London in 1851.The success of that event stimulated other countries to hold similar

3.4.2. Matched Pair Design

Finally, two firms were selected from each of these three sectors as a result of preliminary interviews carried out with general secretaries of competent representative associations of the three sectors. These key informants suggested participant organisations to me from the wide array of mature medium-sized firms operating in these sectors. The two firms selected from each sector were "matched pairs", one being an 'innovator' in its sector, sustaining its competitiveness through technological and managerial improvements and redevelopments, and the other an 'adapter' in the same industry, with a successful but more stable business history. The firms were selected and matched by these key informants for theoretical reasons, such as replication, contrary replication and extension of theory. Although relying on a third party to make *a priori* judgements about internal firm dynamism may surprise the reader because it appears as conflicting with the ontological and epistemological commitments of the research, this approach was purely method-driven with an aim to introduce a rigorous research design. The concept of contrary replication (see Eisenhardt and Graebner, 2007) was an important inspiration for this methodological choice, and key informants were consulted to ensure that contrasting sets of cases were chosen that serve as replications, contrasts, and extensions to the emerging theory (Eisenhardt and Graebner, 2007). It would have been more convenient and more practical, for me as a researcher, to select six firms within easy reach on the basis of personal networks and accessibility but this rigorous theoretical sampling of cases enables to challenge the potential tautology through case choice and leads to very clear pattern recognition of the central constructs, relationships, and logic of the focal phenomenon. Besides, the labels 'judging' the innovativeness of participant firms were bracketed out during data analysis, meaning that the innovator/adapter dimension was not introduced while inducting theory from cases. It is also important

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events, such as the Paris Exhibition of 1889, widely remembered for the building of the Eiffel Tower. 19 EXPOs have been organised since 1851, each one focusing on a specific theme such as agriculture, technology, water sustainable development, the arts, etc. EXPO 2015 is the next scheduled Universal Exposition after EXPO 2010, and will be hosted by Milan which beat Izmir, the only other candidate city.

to note that, the 'third party judgement' was also validated inductively through constant comparison and supported by empirical evidence. [8]

Traditionally, a matched pair design is generally associated with quantitative studies (Collis and Hussey, 2003), though there are some studies in the literature that have successfully applied the technique to qualitative data (see Cobbenhagen, 2000; Storey and Salaman, 2006). In a matched pair design a particular factor is determined that will be studied across firms. Then, twin firms are selected that differ in the value of the particular factor under consideration but are very similar in terms of all other important factors. The logic behind the idea is to control the cases and limit the intrusion of many other extraneous factors that are not central to the study. In my particular case, the participant firms differed in terms of their innovative success – which is the factor under consideration – but were:

- located in the same region or within the same hinterland
- operating in the same line of business
- competing for the same market
- of similar size in terms of the number of total employees
- of similar management structure
- at a similar life cycle stage in terms of age

In line with the enactment perspective, while sampling cases, innovation is defined in the widest possible way, meaning the introduction of new products, the adoption of new processes, or the enhancement of new services by an organisation – new meaning 'new to the organisation'. This definition is incongruent with many studies in the field of innovation investigating new products, services or technology development processes; they have a criterion of being new or unfamiliar to the market and to users. But in my opinion, at least for the purpose of this study, innovation should be defined in this wider sense because, in line with the ontological stance of this research, innovation is not something that exists out there, independent of people and managers of an organisation. First of all, innovation does not exist independent of the people that are faced with it, because the reaction of an organisation or a user to something

[8] The concept of learning mindsets, which will be discussed in Chapter 4, was an emergent, retrospective finding that provides empirical support for the upfront, a priori classification of firms as adapters and innovators.

new and unfamiliar to her is what makes the experience unique and troublesome. To give an example from organisational life, the ISO 9000 quality management system is definitely not an innovation as it has existed in the market for decades, but the experience of an organisation that is faced with implementing ISO 9000 is the same as if ISO was something new to the market. For that particular organisation, ISO is an innovation because it signifies change in their behaviour, their structures, their routines; it is a 'new' experience for them. Secondly, the degree and type of support given to innovation in one organisation is a result of managers' mental models and interpretations which are heavily shaped by their backgrounds and past experiences. Innovation in this sense is a socially constructed phenomenon limited by the accounts, interpretations and theories of people that are actually triggering or preventing innovation through their plans shaped by their hopes and frustrations.

Two of the firms are in the tourism industry (Dolphin and Seahorse), two are original equipment and component parts manufacturers for the automotive industry (Accelerator and Suspension), and two are in the olive-oil processing industry (Crystal and Gold). Four of the six firms (Accelerator, Crystal, Gold and Suspension) are family firms owned and managed by family members, while one firm (Dolphin) is family-owned but professionally managed, and one (Seahorse) was previously owned by the municipality but is now an independent corporation managed professionally. The youngest firm is 28 years old (Seahorse) and the oldest is circa 90 years old (Gold), while the oldest firm that remains exactly in the same line of business is Crystal which is 70 years old. The smallest firm (Gold), in terms of the number of employees, employs 75 people, and the biggest one (Seahorse) has 215 employees. While establishing the case selection criteria I did not intentionally look for family firms or medium-sized firms. I was originally studying mature SMEs, but it turned out that the majority of SMEs in Turkey are family owned and managed and most of the successful mature SMEs that have survived up to this date are medium-sized, irrespective of the number of employees. The general summary of cases can be found in Table 3.2, below, and further details about the organisations will be presented in the next chapter.

Industry Dynamism	Industry	Site Name	Innovativeness	Region	Age	No. of Workers	No. of Interviews	Family Firm	Mgmt. Structure
Slowly Evolving	Olive-Oil Processing	Gold	Innovator	West (Aegean)	90	75	7	Yes	Owner-managed
Slowly Evolving	Olive-Oil Processing	Crystal	Adapter	West (Aegean)	70	92	6	Yes	Owner-managed
Moderately Dynamic	OEM – Brakes Manufacturer	Accelerator	Innovator	Northwest (Istanbul)	45	200	6	Yes	Owner-managed
Moderately Dynamic	OEM – Rubber Parts Manufacturer	Suspension	Adapter	Northwest (Istanbul)	48	180	7	Yes	Owner-managed
High Velocity	Thermal Therapy	Seahorse	Innovator	West (Aegean)	28	215	9	No	Professional managers
High Velocity	Thermal Therapy	Dolphin	Adapter	West (Aegean)	34	109	7	Yes	Professional managers

Table 3.2. Brief Case Profiles

3.5. The Phenomenological Interview as a Data Collection Method

Although there are other methods for conducting phenomenological research, such as the analysis of written material, "phenomenological interviewing" was chosen as the main method to obtain data from the field and has been described as "the most powerful means of unlocking other persons' subjective realities (Mason, 2002). Although there are certain drawbacks in using interviews, e.g. they are not economical in terms of the time and labour required to carry them out and to transcribe them as a preliminary step in data analysis, they do permit exploration of the tacit connections between issues that may be far too complex for quantitative methods to capture (Banister et al., 1994). Grounded in personal interaction, qualitative interviews are extremely helpful in creating an open atmosphere, based on trust, where participants are comfortable in revealing their personal understandings of the environment inside and outside the organisation.

3.5.1. Interview Format

Following the format of phenomenological interviews (Thompson et al., 1989), a "general interviewing approach" (Patton, 2002: 342) was adopted whereby I outlined a set of issues to be explored in each interview and let the participant largely set the course of the interview. A number of interview guides were customised for each

interviewee depending on their specified domain of experience; [9] these served as an "aide mémoire" (Burgess, 1984: 108), providing some kind of a focus to this discussion and ensuring that the same topics were covered in each interview. Furthermore, the list of themes has also helped with crosschecking the respondents' answers and ensuring data consistency and reliability.

Due to the in-depth nature of the interviews, informed consent was obtained before the beginning of each interview. Participants were briefly told the purpose of the study and asked if it would be possible to audiotape the interview after assuring confidentiality. 33 out of 42 participants gave their agreement willingly and detailed notes were taken during the remaining 9 interviews. Anonymity was assured by informing the participants that the real names of the firms and interviewees would not be used in the thesis. At the beginning of the interviews the main focus of the discussion was set and, after this introduction to the participant, the questions flowed mainly "from the course of the dialogue and not from a predetermined path" (Thompson et al., 1989: 138), while simultaneously making sure that the range of themes compiled prior to the interviewing was covered. This strategy allowed focus to be maintained during conversations as well as facilitating the emergence of new topics. To ensure the clarity of the questions, theoretical language was avoided and more everyday terms were used (Patton, 2002).[10] Avoiding theoretical terms and concepts was also deemed to be important for maintaining the balance of power in the interview room and not intimidating respondents, since "the interviewer does not want to be seen as more powerful or knowledgeable because the respondent must be the expert on his or her own experiences" (Thompson et al., 1989: 138).

Interviews were carried out between July and September 2008 in 3 different cities in Turkey: Kocaeli, Istanbul, and Izmir (3 different towns: Çeşme, Izmir city centre and Selçuk). Around five to nine people from each firm were interviewed. The profiles of the interviewees in each firm varied along three dimensions. First, they included

[9] As such, the focus of the discussion and topics covered during the interview were different for interviews conducted with the production manager and the human resources manager in a particular firm. But across firms, similar topics were covered during the interviews with all human resources managers. The aide mémoire included notes such as "Ask what the training programmes in the firm are", "Ask whether the firm owns any quality certificates", "Ask about the experience of applying for and implementing ISO".

[10] The terms innovation, capability and learning were avoided unless the participant used the terms themselves. The implication of this decision is discussed further in Chapter 7.4.

individuals from multiple levels of the organisational hierarchy. I interviewed the managing director, other senior managers, middle managers and first-line employees such as quality specialists, marketing specialists, engineers and physiotherapists. Second, I included individuals from multiple functional areas. Marketing and sales, manufacturing, human resources, and quality departments were all represented. Third, interviewees had a wide knowledge about specified domains of experience, though they varied in terms of their work experience with the firm, ranging from one year to 25 years. Having individuals representing different points in the organisations' histories also helped me to understand how the organisations had evolved. The first interview in each organisation was always conducted with the managing director. The interviews lasted from around 45 minutes to over 90 minutes, and they all took place on the firms' premises during normal working hours. Due to the busyness of business life, the interviews were spaced apart. It took me about two to four weeks to complete all the interviews in one firm. This has enabled me to reflect on the data collected from the interviews. The total time spent in each firm, totalled to 2-3 working days. While I was waiting to be accepted for the next interview in hallways, dining halls or in open offices I had opportunities to observe aspects of organisational culture and atmosphere simply by being there. Even though observation was not the main method for collecting data, it did enable valuable first-hand insights into organisational practices and guided me in my interviewing process.

3.5.2. Interview Process

Access to the firms was gained through networking, through the process of consulting general secretaries of sector associations discussed in Section 3.4.2. Meeting arrangements were made via correspondence by email and by telephone with top managers of the firm. First interviews in all cases were conducted with the managing director of the firm. This interview started with an explanation of the nature of the research, the importance of their collaboration, and clarification of how the information would be used. The main focus of this interview was to obtain an informal account of the firm's history, including major milestones as the managing director perceived them. The interview also involved a discussion of the competitive landscape, changes occurring in the firm's environment, including an evaluation by

the managing director of those changes, and the firm's attitude against them. These initial interviews were structured around those themes but the interviews were mainly unstructured because what each manager chose to emphasise changed noticeably. For example, Suspension Automotive's managing director chose to emphasise the problems that they faced, while Crystal Oil's managing director focused more on the family values that had enabled them to survive for over 70 years in the sector; Seahorse Hotel's managing director told the story of the change projects that had been undertaken by the firm.

In reconstructing the story of the firm, and change and adaption processes, memory failure by the interviewee was recognised as an important source of potential distortion. To guard against such memory failure, people were regularly asked for dates and these dates were randomly checked in subsequent interviews. At the end of the interview, organisational members to participate in subsequent interviews were identified and assigned to help me in conducting the research. It is important to note that although a preliminary list of interviewees had been agreed with the managing director prior to data collection in the firm, additions to this list were made throughout data collection. Sometimes key projects were revealed during the interviews with organisational members, and thus new interviewees were included in the study in order to have more information about these newly revealed aspects of organisational processes. Subsequent interviewees were selected due to their knowledge of the firm's milestone projects in their domains of experience; although they were still phenomenological to a large extent, they did have more structure and were context-specific. I was following some sort of an interview guide based on the handwritten notes taken during the interview with the managing director, including a list of issues and follow-up questions from the first interview in order to elucidate and extend (what were perceived to be particularly important by the managing director) subjects that required further detail and discussion.

Even though the interview guide kept the interaction with the interviewee focused, it was deemed vitally important that the interview maintain a conversational structure and did not turn into a question and answer session (Thompson et al., 1989). Relevant issues from the guide that fitted into the flow of conversation were introduced naturally and any particularly important questions that had not been covered during

the course of conversation were asked towards the end of the interview. As with any qualitative interview, open-ended questions were asked as much as possible (Patton, 2002); when a participant made what was perceived to be an important statement or briefly mentioned an important issue that needed clarifying, I used various probing techniques (Easterby-Smith et al., 2002) which helped to intensify the emerging themes and go beyond the surface of ordinary conversation. Contradictions were perceived as indicators of ambivalence and these ambiguities were addressed with the help of monitoring of non-verbal behaviour by the respondent, as well as also utilising subsequent interviews for cross-checking and data validation purposes.

3.6. Data Analysis and Interpretation

It is always hard to say precisely where data collection stops and data analysis begins. Whether explicitly proposed by Glaser and Strauss (1967) or implicitly, researchers are always trying to make sense of the data while collecting and thinking about what more they can find out. Charmaz (2006) suggests that data collection and analysis are interrelated processes, as researchers often find themselves analysing data from their notes during the process of collecting data. My approach while conducting the interviews was to find out as much as I could about the organisations, the stories about them, their members, the challenges they were facing and the responses they were giving. Conscious and formal analysis of this interview data only began after the formal data collection period ended.

Once I had finished collecting data, I faced a staggering volume and diversity of data collected during the interview process, due to the nature of in-depth phenomenological case study research. The most challenging and difficult aspect of conducting a qualitative inquiry was the process of formally analysing the data, given that the analysis of qualitative data is the least codified and least well described aspect of qualitative methodology (Eisenhardt, 1989; Hartley, 2004). Thus, a great deal of this process, as I experienced it, was intuitive, emergent and iterative.

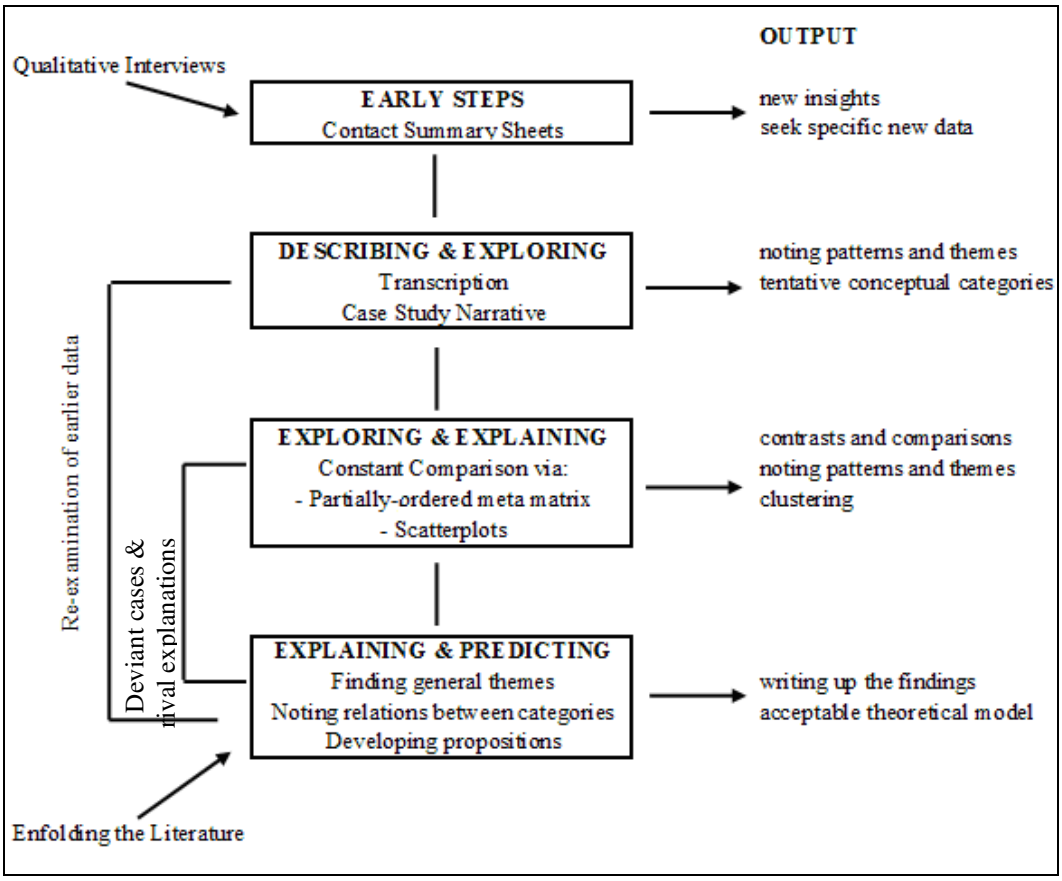

Figure 3.1. Diagrammatic Representation of the Data Analysis Process

Figure 3.1 is a diagrammatic representation of the steps in the data analysis process as I experienced it. Certainly, the process was not as linear and as neat as indicated by Figure 3.1, and in the following sections I will describe the highly iterative and cyclical process that I have been through by outlining the various levels of analysis that occurred during the research. In particular, they will demonstrate how the analysis progressed from more detailed descriptive single-case analysis to more interpretative theme-building cross-case analysis.

3.6.1. Step 1: Contact Summary Sheets

Since I was trying to learn as much as possible about the organisation within a very limited time interval (I spent on only 2-3 days in each firm), I developed a tendency to highlight central themes and ideas that surfaced during the interviews. This was something that I had to do, as each interview was somehow guiding and shaping the themes to be covered in subsequent interviews. So, for instance, if the human

resources manager was referring to the wide variety of quality training courses being offered to the employees, I would keep an account of that issue in order to explore it further during my subsequent interview with the quality specialist. Keeping track of central organisational structures, processes and other themes while listening to the interviewee enabled me to compare and contrast interviewee accounts in a preliminary fashion during the data collection stage. Having as few as two interviews was adequate to carry out such a preliminary analysis and with each additional interview I was able to extend my understanding and further deepen my thinking. This step in the data analysis had implications for the comparative nature of this research (Charmaz, 2006) and proved to be important in dealing with the voluminous interview data.

At the end of each day in the field, I systematically produced "contact summary sheets" (Miles and Huberman, 1994: 51) which were 1-2 pages of write-ups aiming to briefly develop an overall summary of the main points of that day's interviews. It was a technique involving pondering such questions as: What were the main themes or issues in today's interviews? Is there any information that I failed to get on any important topic that I was hoping to cover? Is there anything else interesting? What are my new, additional targets for tomorrow? It was a very rapid and simple-minded summary sheet which was written up in a couple of hours; it was aiming only for the easy retrieval and synthesis of what the interviews were about, pulling together "the data in the 'soft computer' – the field worker's mind – and mak[ing] them available for further reflection and analysis" (Miles and Huberman, 1994: 52). Figure 3.2 illustrates an excerpt of one contact summary sheet.

These early steps in analysis proved to be useful in two ways. First, they helped organise the data for deeper analyses at a later stage. But, more importantly, they opened up the possibility of collecting new data to fill in any gaps in the organisational story and in my understanding of the organisation, and the opportunity to test emerging hypotheses during the data collection stage and to formulate rival hypotheses as I deepened my understanding after each interview.

CONTACT SUMMARY FORM

Site: Seahorse
Who: General Manager
Date: 18/08/2008

1. What are the main issues or themes that struck me?

Highly proactive approach of management. Active penetration to the environment. Chasing opportunities, creating markets

So many projects happening at once.

Employees attend conferences and new services are developed based on the outcomes of those conferences.

They have developed their own quality management system! – Crea QM

2. Anything else that was interesting in this contact?

Thoroughness of organisational development and training

The initial resistance of employees to all these change waves as contrasted with their current acceptance of and involvement in it

3. What questions do I consider in the next contact with this site?

Details of different training programmes that are on offer

The story of the development of Crea QM. What was the need behind it? How it was created? What are the main principles behind it? Was there employee resistance? How they overcome it?

Follow-up on introduction of new services. How conference outcomes are adopted by the organisation? Are there any other channels through new ideas are introduced into the organisation?

Sources of new knowledge

How new knowledge are shared with colleagues? How it is integrated to organisational life?

Figure 3.2. Illustrative Contact Summary Sheet

3.6.2. Step 2: Transcription

The first preliminary analysis occurred while I was fully transcribing the interviews. The transcription process was conducted personally and proved to be extremely time-consuming. In transcribing the interviews I practised "denaturalised transcription" (Oliver et al., 2005), rather than naturalised transcription, meaning that interview noises such as stutters, pauses and accents were standardised. Capturing every utterance in detail was not deemed important, since for the purposes of the research I was attempting to capture the substance of the interview accurately, "that is, the meanings and perceptions created and shared during a conversation" (Oliver et al., 2005: 1276). Since I was not interested in the intricacies of spoken language and analysis of speech by focusing on meanings and dialogue patterns, naturalised transcription did not suit the purposes of my research questions.

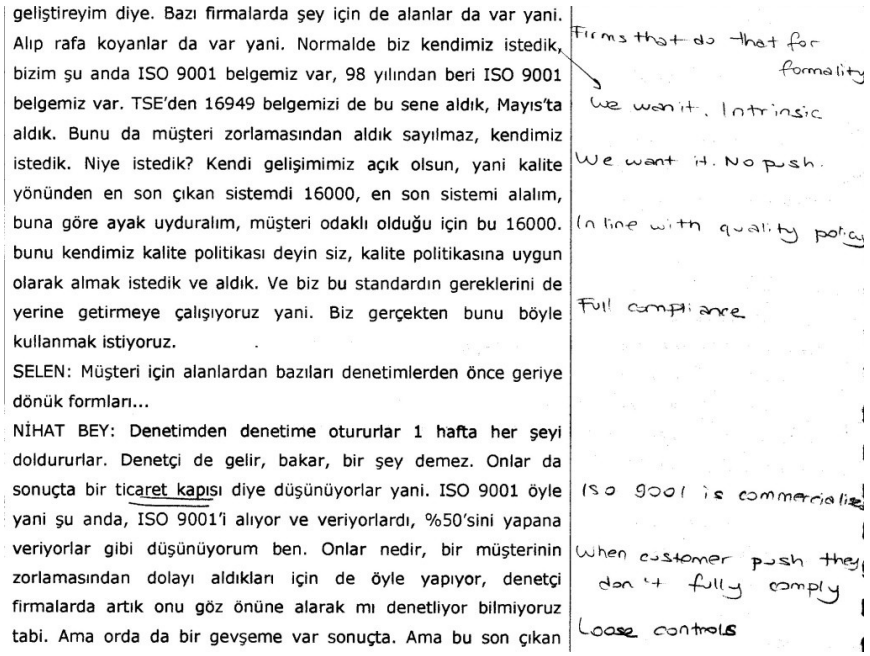

Figure 3.3. Excerpt from Annotated Interview Transcript

Transcription was seen as an important step in getting close to the data and listening closely to what was happening in the firm according to the interviewees' accounts. During transcription, when hearing something potentially significant I typed notes in the margin, which then helped me as the analysis progressed. This typically involved a couple of words or a sentence summarising what was important about a comment by the interviewee and/or highlighting when there were obvious similarities or discrepancies to what the interviewee said before or with what other interviewees in the same or a different organisation had said. This was not an intentional act but occurred quite naturally when trying to comprehend the rich data presented by the interviewees. Because my interviews were conducted in another language (i.e. Turkish), I transcribed the interviews in the language they were conducted in but kept notes and noted down keywords in English. This helped me to preserve the meaning of ideas and concepts as well as ensuring continuous access to the raw material in the form and shape that it occurred. It proved to be a more efficient scenario than word-by-word transcription which in my situation would also involve translation. An excerpt from my annotated transcripts is provided in Figure 3.3, above.

3.6.3. Step 3: Case-Study Narrative

As soon as all the interviews had been transcribed, I immersed myself in reading. In the process of doing so I was searching for themes, topics, ideas and concepts which I marked with key words. Because the full transcription of interviews was a time-consuming, daunting and tedious process, this step occurred in conjunction with the transcription of the interviews. After I finished transcribing the interviews of each case (i.e. firm), before starting to transcribe the next sets of interviews from the next case, I immersed myself thoroughly in reading field notes, contact summary sheets and interview transcripts. In doing so I was searching for themes, topics, and potential concepts that seemed to be important, while also filling the pages with detailed notes in the margins with emerging ideas about what could be done with different parts of the data.

After this first real immersion in the data, I pulled together all these different notes and comments into an "interim case summary" (Miles and Huberman, 1994: 79) or, as Patton (2002: 450) calls it, a "case study narrative" which is defined below:

> The case study [narrative] is a readable, descriptive picture of or story about a person, program, organisation, and so forth, making accessible to the reader all the information necessary to understand the case in all its uniqueness. The case story can be told chronologically or thematically (sometimes both). The case study [narrative] offers a holistic portrayal, presented with any context necessary for understanding the case.

The primary aim of this step was to break down forty- to seventy-page transcripts into a more manageable form and to create a coherent overall account of the case. Having a more structured ten-page case summary was viewed as more tractable and workable than a rather disjointed fifty-page transcript. But apart from helping me to cope with the staggering volume of data, writing up case narratives enabled me to become intimately familiar with the organisation being researched, in turn accelerating cross-case pattern searching. What is important to stress is that these narratives were structured around a number of themes that *emerged from the data* and did not include the examination or integration of any literature. As Keen (1975, cited in Hycner, 1985: 280) states, "we want not to see this event as an example of this or that theory that we have, we want to see it as a phenomenon in its own right, with its own meaning and

structure". In this sense, the case narratives were more descriptive rather than theoretical and analytical, and data were explicated regardless of what the interviewees had said to respond to and illuminate the research question. Such an approach was deemed to be important at this stage of data analysis since this was a step where I was trying to enter the unique world of each organisation interviewed, so staying close to literal data was seen as necessary to achieve this. Although themes were not necessarily replicated across cases, since they emerged from the interviews conducted within each firm, they still allowed cross-case patterns to emerge when I started to think about multiple cases.

3.6.4. Step 4: Constant Comparison

After having become acquainted with the uniqueness of each case and having a sense of the overall meaning of the interviews, the next critical step was to delineate data relevant to the research question in order rigorously to describe and conceptualise the variety that existed within the subject of study. This obviously required some kind of "judgement call" (Hycener, 1985) on the part of the researcher, and in order to avoid reaching premature conclusions based on limited data I utilised a constant comparison method. Constant comparison, which is based on the idea of "looking for commonalities and differences in behaviour, reasons, attitudes, perspectives" (Boeije, 2002: 393), is found to be a dominant principle of the analysis process in the traditions of qualitative research (Charmaz, 2006; Glaser and Strauss, 1967; Miles and Huberman, 1984). Comparison is seen as central for generating accurate, valid and reliable theory (Boeije, 2002; Eisenhardt, 1989), and reassuring the researcher and readers that the processes and outcomes in a well-described setting are not wholly idiosyncratic (Miles and Huberman, 1994). As Eisenhardt (1991: 620) points out, "different cases often emphasise complementary aspects of a phenomenon. By piecing together the individual patterns, the researcher can draw a more complete theoretical picture". However, the literature does not make clear how one should deal with the process of constant comparison. The lack of clear-cut research questions and the inexistence of a prior coding system meant that the data analysis process should be 'produced' by the doctoral researcher. I soon discovered that developing powerful explanations based on multiple cases was no simple matter. The inner dynamics and

unique stories of each organisation turned out to be quite different and could not easily be compared. This dilemma of transcending particularism without smoothing down the local conditions of each case is well argued by Miles and Huberman (1994: 173):

> As Silverstein (1988) puts it, we are faced with the tension between the particular and the universal: reconciling an individual case's uniqueness with the need for more general understanding of generic processes that occur across cases. That uniqueness, he suggests, resides in the individual's developmental history over time – but 'encapsulated within the general principles that influence its development'.

Miles and Huberman (1994) suggest two approaches to comparative inquiry, both responding to the dilemma described above: case-oriented analysis and variable-oriented analysis. Case-oriented analysis considers the case as a whole entity, looking at configurations, associations and patterns within the case; only after one case is studied in depth are successive cases examined to see whether the pattern found matches that in previous cases. Conceptions of a particular phenomenon are deconstructed for one particular case and only then does the researcher turn to comparative analysis and collect multiple instances of that phenomenon from a number of cases. Cases that share certain patterns or configurations are clustered by forming *types* or *families*. Variable-oriented analysis somewhat underplays individual case dynamics because the analysis starts with locating recurring themes and looking for the ones that cut across cases. The building blocks are these themes from the start; and in this sense variable-oriented analysis is more conceptual and theory-centred when compared to case-oriented analysis.

I approached comparative analysis by combining case-oriented and variable-oriented strategies. I started by looking for similarities and differences between each case by referring to individual case narratives. But although several hundred pages of transcripts and field notes were reduced to more manageable case narratives, I still needed a tool to make all the data comparable via common displays and common comparison formats in order to draw meaningful and relevant comparative conclusions. The "partially ordered meta-matrix" proposed by Miles and Huberman (1994) allowed me to assemble comparable data in one place, in coherent fashion. I put all relevant data, in a condensed format, into a big master chart, by placing all themes that were relevant for the research question in columns and for individual

cases in rows. Trying to fill each cell entry forced me to think about individual cases from different angles, and placing the data for all firms enabled me not only to compare firms that were matched at the data collection stage but to create new pairs across sectors and across levels of innovativeness. The result of this 'forced' comparison proved to be fruitful since "the juxtaposition of seemingly similar cases by a researcher looking for differences can break simplistic frames. In the same way, the search for similarity in a seemingly different pair also can lead to more sophisticated understanding" (Eisenhardt, 1989: 541).

'Forced' comparison via a partially ordered meta-matrix was the first sub-step for deep comparative analysis. It was critical because it enabled me to divide my data in different ways, and this made it clearer how to contrast and cluster data that came together. Once certain patterns and clusters started to emerge from this sub-step, I tried to categorise each firm according to certain dimensions of interest that had emerged from the 'forced' comparison. A tactic that I used to achieve this was to draw scatterplots (Miles and Huberman, 1994) and to plot each of the cases on two or three dimensions (axes), so that similarities and differences between cases could be seen visually and spatially. Because I had a relatively limited number of cases, I did not carefully scale them. Since there are four quadrants on a scatterplot and the data from six cases are displayed on it, I simply placed each case on the scatterplot relative to each other. Although my approach to plotting the data from my cases was quite simplistic, utilising scatterplots in this way was quite illuminating in making more precise the determinations about which cases formed clusters.

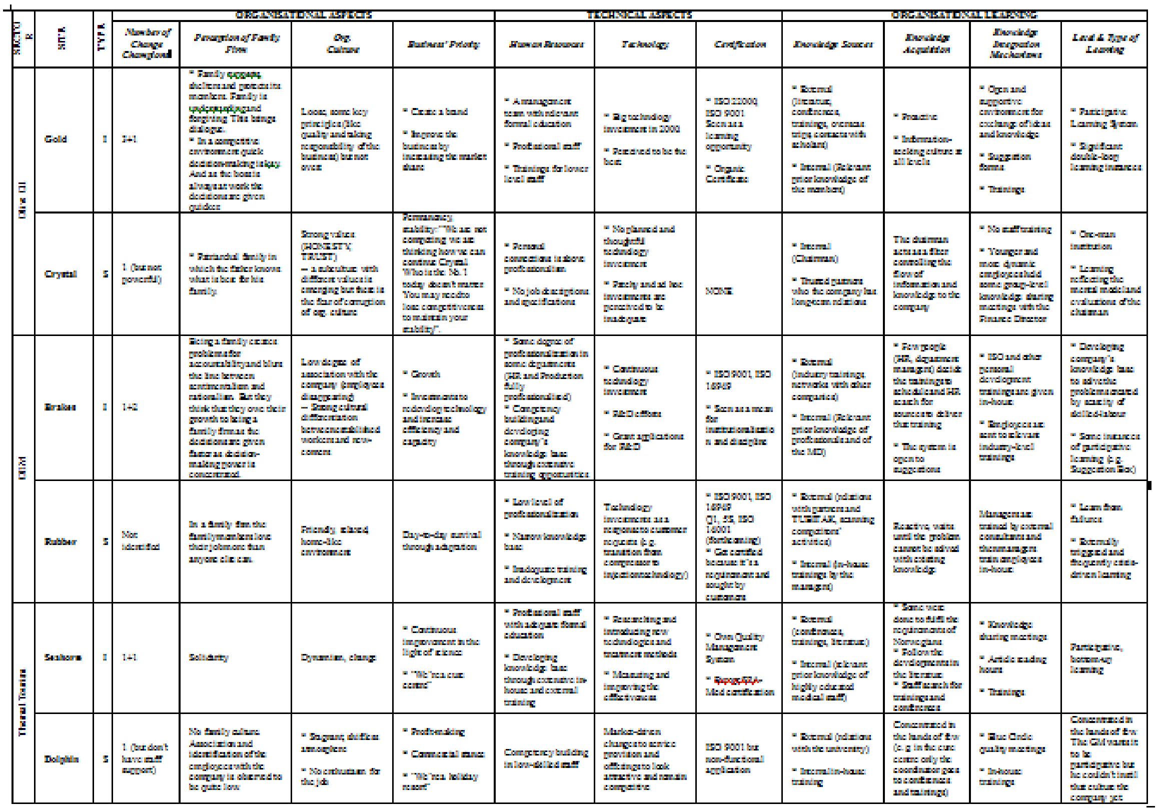

Figure 3.4. Excerpt from Partially-Ordered Meta-Matrix

At this point it is important to note that to allow for a more detailed and sophisticated exploration of cross-case patterns, while some dimensions to categorise the data emerged inductively from the data, some dimensions were suggested by the research questions and by the existing literature. For example, while one of the dimensions used in the partially ordered meta-matrix, perceptions of being a family firm, emerged inductively from the data, the focus on firm capabilities during comparative analysis was guided by the research question, and the search for different forms of learning was suggested by the existing literature. Figure 3.4, above, provides a snapshot of the matrices that I created at this stage. The matrices covered four A2 pages and what Figure 3.4 illustrates is a quarter of that in a very miniaturised form. Thus, although the information in the matrix is not legible, I hope that this snapshot gives a hint of the amount of information and detail that these matrices captured. Again, no theory was used at this stage; it was just a broad sweep of case narratives looking for evidence of organisational capabilities and instances of organisational learning.

3.6.5. Step 5: Developing Theoretical Propositions

In developing themes that will be discussed in the following chapters, it was insufficient to cluster together evidence from the case narratives. After having understood the dynamics of each particular case through case narratives, and having explored the configurations between them through a partially ordered meta-matrix, the next step in the analysis was to generate explanations and test them by cycling back and forth between case narratives and cross-case displays, in order to see how certain aspects of the phenomenon were exemplified there. At this stage, I turned to the question *why*. From the meta-matrices, plots, and stacks of 2-by-n matrices contrasting pairs of cases, I induced tentative propositions. This step was a highly iterative process that involved systematically comparing the emergent propositions from each case in order to assess how well or poorly they fitted with the case data. As Eisenhardt (1989: 541) explains: "the central idea is that researchers constantly compare theory and data – iterating toward a theory which closely fits the data".

This final important step of data analysis occurred in three distinct but repetitious stages. First, to maintain an inductive approach to theory development, emergent theoretical propositions were *written up from the data*, without the use of any relevant theoretical literature. This occurred through creating an unstructured list of concepts, relationships, assumptions and statements that I wanted to include in my thesis. After having separated the more general abstract propositions from the more specific concrete ones, I looked into the general propositions case-by-case to see the degree of support for a proposition in each case. This approach suggests a constant comparison between data and propositions to accumulate and build evidence from diverse cases that can converge into a single theoretical framework. By iterating between different aspects of cases and theoretical propositions, and by integrating explanations and rival explanations from the accumulated evidence, I eventually developed definitions for several concepts: operational capabilities, adaptive capabilities, generative capabilities, capability circles, the heterogeneity of firm capabilities, idea of envelopment, learning mechanisms, and so on. Sometimes a proposition was confirmed by the case evidence, while at other times it was revised to incorporate

deviant cases and rival explanations or was thrown out for lack of evidence.[11] Cases which did not confirm the emergent theoretical proposition or the suggested relationships between concepts often provided opportunities to refine and extend the theory (Eisenhardt, 1989; Miles and Huberman, 1994). As Miles and Huberman (1994: 208) point out:

> [Deviant cases] are your friends. They surprise you, confront you, and require you to rethink, expand and revise your theories. They must not simply [be] cast into outer darkness as 'errors', 'inapplicable exceptions' or irrelevancies'.

The concepts of operational capabilities, learning mechanisms, and the idea of envelopment were introduced as a result of the existence of some cases and instances that did not fit my emerging explanations. Further examination of the case of Crystal Oil called for the introduction of the concept of operational capabilities and the replication of this concept in other cases led to the refinement of organisational capabilities in the emergent model. Similarly, it was observed that several organisational learning mechanisms, even in cases exhibiting low organisational learning, resulted in the inclusion of the concepts of the co-creation and valuation of knowledge for further scrutinisation of learning mechanisms operated within organisations.

Staying close to the data is important for inductive theory-generating research; however, it was deemed necessary to return to the learning and capability literature to explore the relevance of propositions produced from the data. At a more conceptual level, as Eisenhardt (1989: 544) explains, "enfolding the literature" is important for developing theory with stronger credibility and deeper conceptual insights that will contribute to the accumulation of knowledge in a particular field.

[11] One such example of eliminating a well-defined theoretical construct due to insufficient evidence for building a sophisticated explanation was the concept of interpretive systems. This concept was conceiving organisations as interpretive systems and I was aiming to find a relationship between the interpretive system of a given organisation and its level of organisational capabilities. But while I was searching for a series of theoretical propositions that could explain what was happening in the data from the perspective of interpretive systems, I simply could not come up with a generic model that would not forcibly smooth out the diversity in organisations. There were so many deviant cases and so much conflicting evidence from those cases that if I wanted to preserve the uniqueness of each case in order to develop a well-grounded set of explanations, it would not be possible to determine *typologies* or *case families* that shared certain scenarios and configurations, which are necessary to present a comprehensible theory to the reader.

> An essential feature of theory building is comparison of the emergent concepts, theory, or hypothesis with extant literature. This involves asking what is similar to, what does it contradict, and why. (p.544)

Thus the second stage for developing propositions was to go back to the literature and search for theoretical models and empirical evidence that would provide an explanation of the 'why' of what was happening. Especially when enquiring into deviant cases and unexpected patterns, examining the extant literature proved to be critical for deepening insights into proposed concepts and sharpening the limits of emergent theory. Enfolding the literature and introducing concepts and theories discussed by previous scholars not only enhanced my confidence in this study but, more importantly, strengthened the theoretical scope of my research.

The final stage in the iterative process of data analysis was ongoing as I was writing up chapters and trying to explain what I had come to understand from my cases and why I believed it was important. This effort involved shaping the data in a way that would help the reader understand the point I wished to make and follow a strand, while explaining the surrounding contextual conditions in order to make sense of that strand. During the process of articulating my ideas in written form, I found that questions arose that had not arisen from any of the previous analytical efforts; that required further explication of the data, in turn requiring me to go back to the previous steps of the data analysis process. Even at times when I thought that I had reached closure with the data analysis and had moved on to the final part of the doctoral experience (i.e. writing up the findings of the research), the qualitative research process still involved backwards and forwards, between the steps of conducting research. I take this to be a function of the richness of the data rather than any failing in any of the earlier analytical efforts. This is something that the qualitative researcher must adjust to, since "the accumulation of knowledge involves a continual cycling between theory and data" (Eisenhardt, 1989: 549).

3.7. Conclusion

The main points of this chapter were meant to present the components of the methodological framework of this research. The chapter aimed at exposing my position as a researcher and what I believe to be the nature of the phenomena under investigation and how this affected the methods and tools I utilised for exploring the phenomena in depth.

Adopting a social constructivist research stance, I conducted phenomenological case-study research in six mature Turkish medium-sized firms operating in three different sectors with varying sector dynamism. During the fieldwork, data was collected mainly through interviews, though the unsystematic observations made during and between interviews have certainly coloured the way I perceived and interpreted interviewees' accounts. Data were then analysed through a five-step approach, comprising within-case and cross-case analyses that enabled me to undertake this theory-building research. Since the research adopted an inductive approach to theory-building, there was no set theoretical framework at the outset of this research. Theoretical propositions emerged gradually as I immersed myself in the analysis of the empirical material to hand, and theory was built incrementally as propositions were empirically substantiated. Since empirical data are central to my explanation of the phenomena under investigation, it is important to ensure the dependability and transferability of this research by providing a rich and detailed description of the research setting and context. Therefore, I will proceed by providing detailed descriptions of the participant firms in the next chapter.

CHAPTER 4
CASE DESCRIPTIONS

4.1. Introduction

As mentioned previously, in Chapter 3, the six cases are matched pairs and represent three sectors: olive oil, automotive parts and components manufacturing, and thermal therapy tourism. Although the dynamism of these sectors varies significantly, from slowly evolving to highly dynamic, all of the firms are successful and prosperous in their respective activities, indicating that they have been able to sustain their competitiveness for at least twenty-five years. This chapter aims to establish an initial understanding of the six participant firms and how they operate. It provides an overview by outlining the data collected for this research with a concentration on learning- and innovation-related incidents before embarking on the analytical process. Overall, this chapter aims to provide the reader with quite a detailed description of the research setting that forms the basis of the subsequent empirical chapters. In the following six sections, the background profile and findings for each of the six cases will be presented; they are organised around three dimensions that are deemed to be important for analysis of the effect of managerial perception and organisational enactment on capability development and learning. Section 4.8 presents an alternative explanation to understand the cases with the aim of pulling together the different dimensions discussed throughout the chapter. I will argue that we can distinguish between two groups of organisational systems utilised for capability development and knowledge acquisition, which represent two distinctive mindsets for learning, *learning to innovate* and *innovating to learn*.

4.2. Crystal Oil

4.2.1. Firm Overview

Crystal is an olive oil production, processing and bottling firm employing 140 people, including employees at headquarters and in the factory in Izmir, and a sales force living and working in other regions of Turkey. The firm is owned and managed by a Levantine[1] tradesmen family, originating in France, which started olive oil production in 1938; the firm was founded in 1945 as Turk Co.[2] Since Turk Co. (T.A.Ş. in Turkish) denotation is awarded to few firms in Turkey, they are very proud of having this denotation since they see this as evidence of their Turkishness – something very important for a minority Levantine family.

Crystal was the first olive oil manufacturer in Turkey and the first branded and packaged olive oil seller. The family owns some agricultural land on the outskirts of Izmir; however, due to the big production volume of the firm, they purchase olive from farmers and thus do not rely solely on their own olive harvest. The firm only has the Crystal brand under which they sell their olive oil. In 2006, the Crystal brand was selected as the 'Best Olive Oil in Turkey' by a jury consisting of olive oil tasters, chefs, gourmets and restaurant owners; and it still holds the title as the competition has not been repeated since 2006.

Apart from olive oil, the firm also produces soap and sultanas, though this is a very minor part of their business, as the firm considers itself to be primarily selling olive oil; none of the interviewees mentioned that they produce and sell soap and sultanas while introducing the firm. Five per cent of the firm's business consists of exports, mainly to France, again under the Crystal brand. In their export activities, the

[1] The term Levantine derives from the French *levant* (rising), referring to the easterly direction of the rising sun, from the perspective of England, where the term was first used in the 15th century. The Levant is a geographical term referring to the "Mediterranean lands east of Venetia", bounding the area in the Middle East lying roughly between the Taurus Mountains, the Mediterranean Sea and Upper Mesopotamia. The name Levantine is applied to people of Italian or French origin who lived in Turkey (the Levant) in the Ottoman period. The majority of them are descendants of traders from the maritime republics of the Mediterranean engaged in various trading activities with the Ottoman Empire. They continue to live in Istanbul and Izmir.

[2] Joint stock firms are denoted as A.Ş. in Turkey while Crystal Oil is a T.A.Ş, with T standing for Turk.

management prefers to produce and sell only under the Crystal brand, because they see this as a means to ensure continuity.

Crystal is a typical example of Chandler's (1966) Type I organisation. It is owner-managed and is limited to a single product line; it emphasises one function, in this case production, more than others. Marketing and sales are not prioritised by the management, as evidenced by the sales manager's explanation for not using the Best Olive Oil in Turkey 2006 award for promotional purposes: "customers who know us know us, we don't need those titles". The owner-manager, Chairman Norman, makes all the major decisions in the organisation and attempts to monitor all activities on a daily basis. In this respect, the organisation is based on the management imperative of one-man rule and the staff serve merely as an extension of his will.

As will be discussed in the next section, Norman, and thus Crystal, finds environmental alignment more advantageous than internally-triggered organisational renewal. And the physical setting further supports his stance. Crystal has its headquarters in Alsancak, the business quarter of Izmir, where commercial activity is concentrated. The business support functions including human resources, finance and sales are situated here. The factory is located in Bornova, the first industrial district of Izmir. The factory, from the sign on the main gate to the furniture used in the offices, appears old and outdated with an unkempt heavy look. The factory land houses some older and newer constructions, very closely spaced to each other, suggesting that buildings were constructed and the factory expanded in a patchy fashion as the firm grew to occupy all available space.

4.2.2. Assumptions about the Environment

Interviewees working at management level admitted that although there is competition, which is increasing and becoming ferocious with the entry of new firms, they still perceived a great deal of stability in their external environment, in terms of changes that they need to respond to. As the Chairman, Norman, explains:

> In our 75-year-long business life, we have seen numerous firms that entered the business, grew, shone for a short time, and then died away and ceased to exist. Business has a current, it

> is a stream, what matters is to not to be caught in the current, not to be left adrift … Business is like fashion. People wear different things but a dress is always a dress. Especially when you talk about food products, they are classics, they never change or get altered. Olive oil does not change, it is always olive oil … If you forget this, you get carried away, the current sweeps you away, destroys you.

Crystal represents an organisation that has strong connections with the past. For Crystal, the organisation's aim is to ensure permanency. The emphasis is placed on continuity; future success is seen as a continuation of the past, of the structures, processes and values of the organisation. Even if the market has changed tremendously in 70 years, Crystal finds it advantageous to adhere to the organisation's past and to exercise central leadership to make sure that organisational members remain devoted to the organisation's traditional processes. This view of the business, "the art of protecting the line" as Norman puts it, might be unwarranted but I would note that Crystal's management partly enacts the stability in its environment through its strategic actions. For example, Crystal directs its products only towards a limited segment of the total olive oil market; and the segment chosen, namely Riviera olive oil, is possibly one of the healthiest on the entire market. Thus, by focusing on a relatively stable business line in the olive oil industry Crystal is decreasing the chance that its perceived stability will hinder firm competitiveness.

4.2.3. Fundamental Attitude to Innovation and Change

Since it assumes the environment to be relatively stable, Crystal management has a tendency to ignore or underscore developments in the competitive environment; it resists moving into new advantageous areas through innovation. They are unwilling to respond to their environment and are reluctant to act. For example, several olive oil producers in Turkey, including small ones with limited resources, are increasingly diversifying their product ranges by segmenting their olive oil according to its acidity level (e.g. 0.3%, 0.5% and 0.8%) and offering olive oils infused with garlic or oregano in order to respond to changing consumer tastes. But the chairman and production manager of Crystal are unmoved by these new trends in the sector and these potential opportunities are regarded as inferior. The interviewees from top management stated that Crystal does not need to engage in such 'pretences' to remain competitive. An

extract from my interview with the production manager, Ripley, illustrates well the firm's approach:

> SELEN: Recently, several firms have started to diversify their offerings by introducing olive oil flavoured with oregano or garlic. In terms of product diversification do you…
> RIPLEY: Norman [Chairman] thinks that those firms are moving away from the essence of olive oil. The olive is fundamental. These are marketing trends, advertising trends. I believe it is a marketing gimmick to sell an olive oil that is worth 5 lira for 15 lira, 20 lira. They put the oil in an attractive bottle. The oil inside is not good; it is for covering that up. With that flavour you can't sense the beautiful taste of the olive oil. The firms are choosing these ways to sell fancy things, to advertise them differently. We perceive the situation like this.

Innovation is perceived to be dangerous because it might distract the organisation's attention from the main business – processing and bottling olive oil – and could lead to the firm's demise. Change and innovation are perceived as destroying the past and the organisation, and so should be avoided. Chairman Norman equates change with degeneration: "We haven't changed, cracked and spoiled because we have remained true to our values." Innovative approaches to olive oil production and marketing are also seen as a waste of resources since, their "customers in Anatolia would not even buy the Crystal olive oil that they always buy in a bigger packaging. Our customers are conservative, they won't even switch to 10-litre tin cans if they are used to buying 5-litre tin cans. There is a habit, a trust in the package … We compete, derive our competitive advantage from that tie with the customer," as finance manager Clark put it when asked about possibility of expanding the product range.

4.2.4. Approach to Learning and Knowledge Acquisition

Knowledge acquisition at a very basic level is reinforced by a perception of the need to learn, and so the management, and consequently organisational members at Crystal, often do not perceive the need to acquire and learn new knowledge. But apart from the need to learn, a readiness to learn is also reinforced by attitudes towards innovation and novelty. And, as discussed in the previous section, Crystal is very cautious and sceptical towards new ideas and innovative applications. There is a belief that existing organisational resources are as capable, if not more so, as new business knowledge for sustaining the business. This belief leads to an overreliance on the systems and processes that have grown up through the years and acts as the main inhibitor to

potential external learning and knowledge acquisition. Even the finance manager, Clark, who is the youngest and most educated member (he has a management degree and finance masters from a British university) of the top management and one of the few pro-professionalisation and pro-change interviewees, attaches importance to traditions and the continuity of those traditions:

> …New generations of managers should join the firm. But while third generation, fourth generation members join the management, the organisation's way of doing things should not disappear. Because if this firm is continuing its operation of over 70 years, this is a success; someone has done something right. Is that not so? Why cross out, throw away these things? Newcomers should not be in the mentality of 'I bring my own system. I do things differently', this should not happen. We have solved this problem in this way for over 70 years, this is a result of past years' accumulation of experience. We have the correct solutions, they have to understand this and agree. Newcomers should accept the organisational processes and ways of doing things. Can these be improved? Yes, they can. We use computers, we utilise Excel and Netsis and other ERP systems. Tools can be changed, but the system as a whole remains unaltered.

This quote vividly shows how Crystal's strong connections with its past leads to the recycling of traditional organisational knowledge. The organisational environment is not very welcoming to new ideas and approaches, as evidenced by Clark's quote; the organisation's members presumably do not feel motivated to learn new things or to experiment with new ideas. The younger employees are more dynamic and search for some more information to develop themselves but, except for the finance director, nobody else has a chance to share this knowledge with the organisation. The junior staff sometimes meet with the finance director and exchange their new knowledge at group level, but, generally speaking, the learning takes place at individual level, if individuals are motivated to acquire and learn new knowledge and skills at all.

Crystal management is clearly over-committed to current and historic structures and is unwilling to discard or think beyond these limitations. In Sharma's (1999) terms, Crystal as an institutional form displays 'faith in the known and fear of the unknown'. The top management team is imbued with, and representative of, the past; it is not only unable to see beyond its limits but cannot even appreciate that it is limited. It is also worth noting that staff turnover is dramatically low at Crystal, especially at management level, and that all members of top management have been working in the

organisation for lengthy periods and are promoted from within. The majority of the managers of Crystal started working for the firm immediately after graduation, so a "tradition of conduct" (Weick, 1995: 126) is in place which creates a stable repertoire of operational patterns, structures and means to attain the ends sought. The knowledge utilised for running the business operations and responding to external stimuli embodies the extant organisational knowledge base formed either by previous lessons learned by themselves, or by earlier generations that they have worked with, which might not necessarily be offering solutions to contemporary problems. The fact that organisation's learning history is not rich further hampers Crystal's potential to create well-organised internal knowledge processing structures and favourable conditions for efficient learning activity.

The owner-manager does not only manage the firm and coordinate people, he also acts as a filter by controlling the flow of information and knowledge within the firm. Chairman Norman's central leadership dominates the technical and technological domain of the organisation. Even Ripley, who is the factory manager and thus a member of top management, acts under Norman's guidance. A quote from Ripley's speech while he was talking about his background and history with the firm illustrates Norman's dominance:

> The job offered to me is actually about the whole production system but I mostly deal with technical matters. [Norman] showed me some stuff but now I take care of and inspect things under [Norman's] custody. I deal more with the mechanical-technical parts because I'm not familiar with olive oil; I'm not acquainted with it. I'm trying to go in the direction I was shown. Of course I'm not in the oil business, that's why I deal with technical things, like factory maintenance; Mr. Norman monitors manufacturing.

As this quote shows, all aspects of the business, including production issues, revolve around Norman. As a result, the type of knowledge entering the firm is very subjective, reflecting only his perceptions. He is the one who follows up new technologies, he is the one who decides which machine to buy, and when and how much investment to make. At the time of these interviews, Crystal was in the middle of a big new refinery investment, but Ripley did not have any information about who the potential vendors were, or what their offers were. No one else in the firm seemed to have any say in what kind of capability and technology should be acquired to increase competitiveness.

Although Norman claims that they "make technological investments every year without stopping. [They] make their investments in piecemeal fashion … in order to practise whatever technology and quality dictates," Clark and Ripley do not agree with him and perceive these technological investments to be inadequate. Finance manager Clark thinks that they don't have the technology to give them a cost advantage, while Ripley says:

> I'm against the piecemeal investment approach … We have too many flaws; we can't keep up with the technology in the next 5-10 years … Investment has to be made in its totality. This is my personal view. But Mr. Norman does not agree with that. A brand-new refinery is very good, OK, but the remaining parts have to be renovated quickly … If it's about keeping up with the technology, then the whole system has to be modernised. It might be expensive but fixing old stuff is always more expensive and more difficult. This is an outdated place, building a brand new place is better. Adapting never works, it becomes patchy.

4.3. Gold Oil

4.3.1. Firm Overview

Gold is an olive oil production, processing and bottling firm, employing 46 permanent workers and around 30-35 seasonal workers, located in the Selçuk district of Izmir. These seasonal workers work for the firm for around seven months per year, and generally the same workers are employed every season. The firm was founded as an ordinary partnership in 1910. At that time, the business included the production of and trade in olives, mandarins, peaches and cotton, owing to the extensive agricultural land that the family owned in Selçuk. The firm was incorporated in 1986, by the third generation of the family. Following incorporation, an olive oil factory was established in Selçuk and the firm started to produce olive oil with the Loyalty (pseudonym) trademark. Alongside the Loyalty brand sold to the end customer, the firm was also producing private label products for its business customers, especially as a part of its export activity.

In 2000, the fourth generation of the family established a new factory with state-of-the-art technology and increased capacity, with the help of external consultants. The

general manager says that they still have the best technology available in the market. He stated on several occasions that he does not believe that any substantially superior technology will appear any time in the near future. Their technological superiority is also evidenced by the fact that the equipment vendor that they purchased their machines from organises on-site visits for their new potential customers to show the machines at work.

In 2003, they also created a second brand, Gold, with conventional and organic extra-virgin olive oil choices. The Gold brand targets niche markets with its luxurious positioning. It has a more refined taste and is sold only in glass bottles up to one litre. With its current positioning, Gold is sold in upmarket supermarkets and delicatessens and is also sold to superior night clubs and restaurants in Turkey, with different packages for serving at tables. They also have exclusive ceramic bottles to be sold at prestige points such as Harvey Nichols and Beymen (an upmarket Turkish fashion retailer). The firm also supplies processed vegetables (artichoke hearts in brine, sun-dried tomatoes, capers, grilled and roasted vegetables, and bruschetta) in small glass jars as well as high-quality black olives and olive oil soap, both in Turkey and abroad, under either the Gold brand or with a private label.

4.3.2. Assumptions about the Environment

Although Gold Oil is in the same industry as Crystal Oil, its managers have constructed a different perception of the industry to Crystal. Unlike its counterpart, Gold Oil perceives some degree of dynamism in the olive oil industry. The Crystal management underestimates the competition from multinationals, since they believe that these firms will fail to become permanent players in the industry in the long-run; meanwhile Gold interprets the entry of multinational firms into the industry as an opportunity to increase Gold brand's current market share. They believe that, through their advertisements, these big firms are educating the customer to appreciate good olive oil with a refined taste, and are thus evoking an increase in customer expectations, an expectation that Gold is confident to satisfy.

> Turkish people are becoming conscious about olive oil consumption, partly due to the promotional efforts of Unilever. They are learning about kinds of olive, how different regions

> cultivate different kinds of olives, very like grapes and wine consumption. For instance, they can ask for Şirince oil or Ayvalık oil, or oil made from Memecik olives … This works to our advantage. Unilever oils are high quality, but since their sales volume is so big their production does not allow for such fine differentiation between olive types; their products include a collection of olive oils produced by smaller producers, like us. And this affects the exquisiteness of the oil a lot. Our oils are produced on one plantation, all of our bottles have the same taste, the same smell, and thus this appeals more to educated customers. *(Business Development Director)*

While the Crystal management discounted the competition and was interested only in long-term permanency in the market, Gold is actively scanning the market by following up short-term fluctuations in the competition and often tactically revising their position in the market.

> We have to watch the competition actively; because if you don't, you regress. Our merchandising team note down the prices of our competitors on a weekly basis. They note the prices of all the brands, they note down our prices. They look at the space we occupy on the shelves weekly. They note down the placing on the shelves of our major competitors. We pay attention to these weekly data, we analyse them … We have to work on a short-range basis; we act on a weekly basis to improve our competitive position. *(Marketing and Communications Director)*

In order to speed up the decision-making process regarding competitive considerations, they moved the headquarters of the firm from Izmir city centre to the Selçuk district, close to the production facility.

4.3.3. Fundamental Attitude to Innovation and Change

It can be said that Gold managers are taking an aspirational and expansive approach to their thinking about business and innovation. New process, product and packaging development projects have absolute priority for the future success and growth of the firm. In the period between 2003 and 2008 (from the launch of the Gold brand in 2003 to the date these interviews took place in Summer 2008), the firm staged a number of brand communication projects, implemented sales expansion projects, projects to improve the human resources system of the organisation, and introduced several packaging designs for high-end restaurants, luxurious boutiques and other prestige selling points, such as Harvey Nichols. By looking at the organisational innovation

and improvement projects put in action over a span of five years, it can be concluded that innovation is deemed vital by the Gold management. While the technology requirements for processing olive oil are significantly lower when compared to other industries, the importance of regenerating the firm's technological and organisational capabilities is explicitly recognised by the top management, who are all family members.

Gold Oil, out of six organisations, is one of the three cases in which interviewees were talking about innovation. The importance of innovation and the existence of different types of innovation were explicitly recognised at Gold. Terms such as 'process innovation', 'product improvement' and 'marketing innovation' were mentioned by two of the interviewees. Innovation was explicitly stated as the key to increasing product quality and finding novel ways of relating to customers by two interviewees, namely the General Manager and the Marketing and Communications Director.

Numerous organisational members, including blue-collar workers, again family members, are actively seeking information and thinking about solutions to their problems. They do not take anything for granted; they question established truths, and by checking their assumptions about the business they succeed in leaving behind the past, despite the organisation's long history. A couple of years after launching the Gold brand, they even questioned the traditional olive harvesting practices and olive oil processing techniques and managed to differentiate their product through improved quality and taste.[3] This information-seeking culture is cultivated and nurtured by the three family members who constitute the top management of the firm (son, daughter and nephew of the owner). They are individuals with curiosity and internal drive to experiment. While the son and nephew play around with ideas for optimising production, the daughter's personal interest lies in packaging, brand communication and wider branding issues.

> My cousin has a very inquisitive personality, what technologies are available, what are the novelties in food production technologies? Of course because of his family history and work experience his accumulated knowledge in this area is considerable … My brother has an entrepreneurial spirit and is a great observer. He is enthusiastic about researching and being exposed to new ideas … When I or my assistant find an idea, we first share it with him … I

[3] Further details of this story, with an extended example, are presented in Chapter 5, Section 5.2.3.

> have a personal interest in new trends. I think hard about differentiation, interactive communication. I graduated in Business Information Management from the Department of Applied Technology and Management. Inevitably, my educational background plays a role … We had great professors in the area of innovation. One word that you heard from them inevitably takes you to a completely different place.

Gold Oil's approach to quality certification is a particularly telling example of the firm's learning approach. Gold went through quality-related certification processes before starting production of the Gold Oil brand. Obtaining those certificates, which required significant investment prior to launch, shows the managing family's intrinsic motivation and dedication to quality. Gold sees quality certification as a learning experience. For them it is not merely a means to achieve the desired end (i.e. improved quality and taste), it is valuable in itself. For example, they dismantle their machines and have full machine maintenance twice a year, even though ISO certification asks for much less machine servicing, because they know that frequent maintenance is required to improve product and process quality. Because of this mindset, after having internalised the learning points and values behind one quality certificate they moved on to another. The Quality Specialist explained that they had not applied for renewal of their ISO 9001:2000 certificate because:

> Our quality management system brings about continuous improvement. In order to make it work you need to be forward looking. We got ISO 22000 this year because it attaches more importance on food hygiene; we dropped ISO 9001. We adapted the principles of 9001 and integrated them with 22000. The system is there but it doesn't yet have a name officially.

The training that they went through in the process of getting certified was not viewed as a matter of formality and was valued in itself. The General Manager said:

> Attending quality training actively enabled us to take a fresh look at every aspect of the production process and to restructure it. We had been producing olive oil for over half a century. But we were doing the job by reading the user manual. We got these certificates not by attending a short 2-week long training course. For more than 9 months all personnel were trained. We learned every step of the production process, installing and dismantling the machines. Honestly, we didn't know that production involved so much detail. Getting certified benefited our way of thinking about our production … We came up with this new harvesting and production technique not in an intentional manner; we haven't started our production in this way. The quality certificate played a big role in embarking us on this quest.

4.3.4. Approach towards Learning and Knowledge Acquisition

As the data presented in the previous section suggest, Gold is eager to acquire new knowledge and to learn new technologies, applications and skills. Prior exposure to rich learning contexts and the existence of an organisational tradition valuing learning and new knowledge create a favourable environment for knowledge acquisition and generation (Scherer and Tran, 2001). In this respect, the management team's individual learning histories are quite rich. All members of the family have university degrees in a relevant field; this is something they are proud of, as it is unusual for a small family firm in Turkey to send all its children to university.

> In SMEs of this type, in firms of this scale, this is something rarely seen. We attach importance to the education of the firm's partners, family members. I'm an agricultural engineer and I have a masters in management, my cousin *(N.B. the factory manager)* is a chemist, my sister is a management graduate. This is not common. For cost control purposes, to economise on the workforce, firm partners generally go into business after having received some basic education.

Not only members of the family but also members of middle-management are well educated, with significant work experience. In a very small production area there are four engineers (one chemical engineer and three agricultural engineers), plus the quality assurance manager, production manager and the factory manager – who all have an engineering background. The Business Development Director was working for Coca Cola's bottling and distribution firm (namely Coca Cola İçecek) before being employed by Gold. And, surprisingly, the Factory Manager of Gold, who is a family member, gained significant work experience in the food sector, working in one of the subsidiaries of a big holding firm owned by a prosperous Turkish family, before joining Gold Oil in 2000. Employing specialists with relevant educational and professional backgrounds was found to be quite unusual for a firm of this scale. Two of the interviewees associated the organisation's disposition towards acquiring and applying new knowledge with the organisation's members' past experience.

> Key positions are occupied by people who have studied these things in detail. This has an impact upon our playful approach towards new ideas. They had very good professors in the past, they worked for good firms. These experiences had an impact upon their way of thinking, their holding this particular opinion towards inquiry and experimentation. *(HR Director)*

> Educational background and work experience provide you with a way to visualise yourself and your firm in the future. It is not strictly correct to explain our hunger for knowledge by education, but this is an important factor. *(General Manager)*

Apart from having an educated team, Gold also actively uses external channels to acquire knowledge. On the production side, the managers search the Internet and follow a number of international publications to learn about new technologies. Before renewing the factory in 2000, the Factory Manager visited some olive oil producers in California to learn about new production systems increasing output efficiency. The Marketing and Communications Director regularly participates in international and national fairs and attends marketing and branding related seminars and conferences. She asserts that these occasions have not only exposed them to new ideas and new knowledge, but have also helped in forming good networks as a result of such participation, and this has provided them with information on whom to contact and ask for further information, feedback or help with their newly-launched projects. She noted that at one of the marketing and innovation conferences she met Professor Arman Kırım, the Turkish innovation guru; and as a result of that initial contact she e-mails and phones him quite frequently to ask his opinions about her innovative marketing applications.

Regarding knowledge acquisition practices, all Gold employees go through a comprehensive training programme throughout the year by attending courses related to their vocational and personal development.

> Throughout the year, all employees undergo training related to their job or skills that they might use while doing their job. We have a training target, every month we fix a target and say, 'we have to exceed this many courses this month'. *(HR Director)*

With the exception of a few repeat courses, all training courses are externally sourced and are delivered by consultancy firms and specialists with relevant credentials, which is further supporting evidence of Gold's openness to external knowledge sources.

Gold is not an organisation that assimilates and applies knowledge acquired literally. There are a number of examples where organisational members generated new knowledge internally. Gold found an unusual solution to improve the quality and taste of its olives by questioning harvesting practices, it experimented with the optimal

olive-paste cooking temperature, and it added an additional thermometer to the production machine in order to monitor the temperature of the olive oil paste.[4] These are all examples of knowledge generated within this information-seeking culture.

> Our foreman suggested adding a thermometer; he placed a thermometer at the point where it contacts the olive paste. This increased productivity significantly. This modification could have caused damage to the machine but we took the risk, we took his suggestion into consideration, we tried it. Our staff share their suggestions about business development. They take on the responsibility of quality improvement. They share their suggestions orally though informal communication, though we also have suggestion boxes and proposal forms where they can put those suggestions in writing. In this way, we make sure that management take notice of these suggestions. We also have periodical meetings, bringing together employees and management, where they discuss business development and organisational improvement. Informal communication is vital for timely information exchange but suggestions can be overlooked or be postponed when voiced orally ... Training is an important factor in employee involvement for ideas generation. They have been being trained about the system since 2004, they think hard about it. And when they see a positive outcome they enjoy it even more. Seeing management apply employees' ideas motivates them. This foreman was promoted for example. They see their value, their importance. *(Quality Specialist)*

The idea of adding an additional thermometer to the machine was put forward by a first-line employee; this indicates that employees at all levels are encouraged to contribute to organisational development through communicating their suggestions for production and quality improvement in related areas. The practice of utilising suggestion boxes and the culture of open and informal communication ensure knowledge exchange and ideas formation.

4.4. Suspension Automotive

4.4.1. Firm Overview

Suspension Auto is a medium-sized automotive component parts manufacturer producing rubber-moulded and rubber-bounded parts and employing 180 employees. The firm's foundations lay in a small workshop opened in Malatya (a city in middle-eastern Turkey) in 1960. In 1965 the owner of the workshop –the father of the current

[4] The details of this story with extended examples are presented in Chapter 5, Section 5.2.3.

owner-managers – moved to Istanbul and established Suspension Automotive as an unlimited firm based on a sole proprietorship. When he died, in 1987, his two sons took over the business and the firm was incorporated with the mother, two sons and two daughters as the shareholders. Since its incorporation, Suspension has been an owner-managed firm and its ownership structure has not changed; no new family members have entered the business, which is something the owner-managers are very proud of.

During its history, Suspension managed to get over a couple of major existence-threatening crises. In 1988, just a few months after the firm was incorporated, the workshop built in 1965 completely burned down, together with 80-85% of the investment. Surprisingly, this unfortunate incident became the driving force for the growth of the firm. Before the fire, Suspension had a sizeable workshop, 700 m^2 in area, employing 30 people. After the fire, they rented a 4,000m^2 production facility in the suburbs of Istanbul and the number of employees increased to 80. The second watershed event in the firm's history was the closure of Chrysler in 2002. Chrysler was one of the first customers of Suspension in 1966 and was its biggest customer, accounting for some 60-65% of Suspension's total sales. Chrysler's decision to shut down its production facility in Turkey, following the Turkish macroeconomic crisis of 2001, was a real shock for Suspension. However Suspension was able to initiate deals with some other major players in the automotive industry, including the British Motors Company, Temsa Global, Akkardan (the leading supplier of propeller shafts and steering columns to Ford Turkey, Mercedes-Benz Turkey, Iveco and Isuzu) and Çelik Motor (manufacturer of Kia and Lada automobiles). After the closure of Chrysler they gave more weight to their exporting activities, which began in 1996 and currently account for 60% of total sales.

After their exporting activities started, the management saw that their production capacity was insufficient to satisfy external demand and so, as a results in 1997 they bought a new building with a 10,000m^2 production facility plus premises for administrative and support functions in Kocaeli – an industrial city neighbouring Istanbul. They are still in the same premises. While the majority of medium and large manufacturing firms have already moved to industrial zones, Suspension remains on this land located in a primarily residential area. Although the premises are only two

decades old, they look outdated when compared to the modern and advanced production facilities of other automotive firms in the TAYSAD (Association of Automotive Part and Components Manufacturers) Industrial Zone in Kocaeli.

4.4.2. Assumptions about the Environment

Suspension Automotive perceives the external environment as being highly complex, threateningly uncertain, and changing. But in a sharp contrast to *innovator firms* (i.e. Gold Oil, Accelerator Automotive and Seahorse Hotel) this unpredictable and volatile nature of the external environment results in a pessimistic and surrendering approach on the part of middle and upper managers. In the previous section, we saw how market dynamism and competition injected playfulness and openness to new opportunities at Gold Oil. In contrast, the interviewees at Suspension continuously emphasised how severe the competition was and how tough business life was.

> You see, our industry is too tough; it's a very thorny, very competitive industry. The competition is very intense. There are many firms producing rubber parts, in other cities, in industrial zones. Many production facilities are established. Of course, in this situation, finding and keeping customers is very difficult, almost impossible. *(Sales Manager)*

> As I said, the share that you can get in the market is too small. There are too many producers, stealing a share from them is very difficult. We are confronted with price issues. If we are talking about quality, I can claim that our quality is really good. But we are having difficulty competing because of our prices. We are having problems in terms of competitiveness. We are trying to hang on to our existing customers. (*Board Member)*

> Over the last one and a half years raw material prices have risen. But we still have customers that are working with 2006 prices. We cannot increase our prices. They won't accept that. Because if we do, we have to find new customers, or we have to continue as it is. When you look at the figures, automotive is a great sector, it is growing, export figures are growing. But as long as producers are financially straitened there is hardship. Actually, it is very difficult. *(Purchasing Manager)*

> SELEN: I want to talk with you about your experiences in the automotive industry, how you are renewing your organisation in order to remain competitive, how you sustain your competitiveness in the face of changes to the economic landscape and in the market.
> CHAIRMAN: Oh, so you want to ask one question and hear thousands of complaints. You want to hear me grumbling. Is this the topic of your thesis? Make people grumble and whine? I tell you what, competition is difficult; I swear it is tough.

As the quotes above illustrates, for Suspension, confronting the external environment is a very challenging task. At Suspension, accounts given by managers were often limited to complaints and to diagnoses of obstacles. There is a resigned and pessimistic character to their analyses of the circumstances in which they find themselves. Seizing new opportunities is identified as something almost impossible by the Sales Manager; and relying on the picture drawn by the three interviewees quoted above, I might even venture to say that the market boundaries are perceived to be stable and fixed by Suspension, and that there is almost no way to grow the market and create new markets via innovative applications. Since the environment is defined on the basis of tough competition and an overcrowded marketplace, Suspension thinks that the only thing that they can do is to outdo their rivals and try to grab a greater share of the existing demand. In the middle of this cut-throat competition, Suspension managers see their roles as fighting a heroic battle. Their strategy for fighting back against rivals is to become internally more efficient, which will then enable them to produce a reasonable product, in terms of performance and quality, at a lower cost.

4.4.3. Fundamental Attitude to Innovation and Change

The competition-based view of the external environment carves out a reactive strategic posture and adaptive behaviour at Suspension. Managerial attention is directed towards matching their rivals, and thus the firm mainly adapts itself to changes in the market and moves forward based on the actions of competitors and the changing demands and expectations of customers. Technological improvements and organisational developments take place to tackle problems regarding the firm's price competitiveness and fulfilment of customer requests in terms of product features, quality and volume. Thus, Suspension is engaged in innovative behaviour in the sense of introducing technological and organisational developments to the firm, but none of these developments are built up internally, and all of these are *adopted* developments channelled towards *coping* with problems.

For example, R&D activities begin when there is customer demand for a product that cannot be produced with the existing firm know-how.

> Our raw material, rubber, is a natural raw material coming from different countries, different climates. Its reaction to the steps in the manufacturing process differs from one source to another. Thus, you cannot know what you will come up with, what the result will be. Break-in periods, elasticities and resistancies have to be tested. The variability in the raw material forces us to engage in research activities of this sort while production is going on, to work it in during the daily routine. But I believe it would be more advantageous to have an independent department, an R&D department. Then, it might be possible to come up with original mixes independent of customer orders. *(Factory Manager)*

Before 2008, the production team was forced to spare some time for R&D activities in order to solve production problems arising from raw material inconsistencies. The current Factory Manager, who started work for Suspension in winter 2008, realised that the business and especially production were suffering due to R&D inefficiencies. He first started to collaborate with science and technology labs in Istanbul, and later convinced the Suspension management to build an in-house R&D lab. During the time I spent on the firm's premises. I had opportunity to visit a room that was being reorganised as a small lab with the necessary equipment.

Similar to the organisation of R&D activities before 2008, technology investment is planned and completed after customer requests. When customer orders cannot be fulfilled using existing capacity, the management decides to purchase new machines, equipment and technology. For example, the firm's transition from compressor technology to injection technology was achieved after a sudden expansion in the firm's customer and product portfolio.

> Until recently compressor presses took the front seat. But in the face of the emerging trends in the industry and with the need to reduce labour costs and increase production, volume injector presses were adopted … Consequently, market demand is the primary factor for technology investment. That's the most fundamental factor anyway. Then, competitors' positions and manufacturing firms are other supporting factors. *(Factory Manager)*

> We had a compound problem. What did we do? In order to achieve a regular compound we automated our compound manufacturing section. That put us at ease. For example, with presses, we have compressor presses and injection presses. Injection presses are faster and more accurate. But buying injection presses is not an easy thing to do in terms of money. But what happens? No matter how long you delay that investment, it becomes a necessity after a while. You have to renew in order to prevent problems, eliminate losses. *(Board Member)*

Organisational members at Suspension learn how to solve recurring problems, they learn which information is relevant and useful to focus effort, and they become skilful and efficient at problem-solving using existing products and technologies. But all this comes at a cost. Established product-based, problem-solving routines may restrict the ability to see new opportunities, with respect to innovation.

Suspension's reactive approach is also visible in the application of various quality management systems. Suspension has ISO 9001, ISO 9002, ISO 16949, Q1 and 5S quality management systems, and at the time of the data collection period it was in the process of becoming accredited for ISO 14001. With this track record of certificates, Suspension is the organisation with the biggest number of quality certificates across all participant firms. And although the firm performs all the requirements of the quality systems, as the Quality Manager tells, applying for a particular certificate is put on the agenda of Suspension management only when it becomes a necessity in order to do business with a significant customer:

> When you look at 16949, it appears to be a specification of standards, but actually customer requests demand quality certificate standards. We call it ISO, but actually we are merely trying to fulfil customer requirements, whether it is a part of the quality standard or not. What the customer wants, what the customer expects, is important. That is mainly what is taken into account by the management. For that reason, with each passing day, we are forced to consider new quality management tools and applications. We can't say 'we have these certificates, and we don't need the rest'. I mean, Ford has its Q1. It's a certification developed and audited solely by Ford. Logically, when you look at it, it's the same with ISO 16949 specifications. But the forms it asks you to use are completely different … We are working entirely based on Ford's requests. We were not working with Ford. But since we started, our system has turned upside down. Our ISO 16949 certification, our quality management procedures, our quality control and measurement forms, all were completely thrown aside for Ford. But we have to do this if we want to work with Ford, we as a supplier don't have freedom.

Reactiveness towards issues of widening and deepening the organisation's technical competences can be seen in the hiring decision for the current Factory Manager. The hiring decision, in the words of the Factory Manager, was, "merely an extension of the effort to adopting a more systematic structure including regulation of efficiency of business processes and development of the existing system." Fulfilment of increasing customer demands necessitated the extensive adoption and integration of manufacturing-related information technologies and increased computerisation and

automation of business processes. These endeavours gave way to hiring the current Factory Manager who has specialised knowledge and expansive experience of large institutional automotive firms, such as Daimler Chrysler. It is also important to note that Chrysler was the first and foremost customer of Suspension and the Suspension management previously knew the current Factory Manager on a personal and professional basis, prior to hiring decision.

4.4.4. Approach to Learning and Knowledge Acquisition

At Suspension Automotive, organisational learning and knowledge acquisition take on a corrective quality and are mainly problem-driven. Learning takes place to tackle problems faced in the past, rather than to build the firm's future. It is directed towards cutting through internal organisational weaknesses rather than embracing opportunities in the external environment. Suspension's management is willing to provide space for learning and knowledge acquisition events only if an immediate return is perceived. For example, as mentioned in the previous section, Suspension employees are trained in following the standard minimum obligatory training curriculum, which is delivered in-house by the Quality Manager. The need for further training of employees is evaluated through observing flaws and weaknesses in production activities. If a problem is spotted, another series of courses is planned, which is called "corrective and preventive activities training". Similarly, weekly quality meetings are held with the participation of the production engineers, the Quality Manager and the Factory Manager. But these meetings are for performance-monitoring purposes. Quality issues that have arisen during the previous week are discussed and analysed retrospectively. The focus of these meetings – which are presented as important learning events by the Factory Manager and the Quality Manager – is problem solution rather than problem prevention.

> We have weekly quality meetings. Predominantly, we discuss and we evaluate the problems we faced and couldn't solve over the previous week. We talk about issues going beyond our knowledge, our experience. We talk over issues negatively affecting production. Moreover, for the following week – I mean for example we had our meeting this Monday, we think about what we should do until this Friday, are there any problems in production? We evaluate these. And at the end of the month, because our reports are prepared on a monthly basis, we analyse returned products, is there an increase compared to the previous month? If there are too many,

> we ask what the reason is, where problems come from, how we can solve them; we discuss these issues. Our meetings run in this way, they are more of a performance review. *(Quality Manager)*

This post-hoc approach gives organisational members a tunnel vision in terms of the learning and knowledge acquisition activities they engage in. Although members of the production appear to be quite tactful in developing rapid solutions to target specific problems, these problem-driven learning points are marginally transferable to other situations and hardly inspiring for developing alternative viewpoints. It can be concluded that Suspension is ready to learn only system-specific information, and only after the necessity to learn becomes measurable from hard quantitative data, such as statistics, formal reports and similar materials.

Notwithstanding the reactivity of Suspension, new technologies and production processes are followed up via international fairs and, more interestingly, through scanning competitors' activities and rival products. This last point is worth mentioning, since competitor benchmarking and reverse engineering were product development approaches that no other firm mentioned in the interviews.

> FACTORY MANAGER: There are several ways of acquiring new knowledge related to emerging technologies and new materials. First, there are fairs that we participate in and equipment vendors who visit us at those fairs. Second, competitors; trying to understand their production methods and structuring of new products that our competitors have developed, and recognising production-oriented, time-oriented and labour-oriented production styles, and new manufacturing equipment supporting those new styles.
>
> SELEN: So, you keep abreast of your competitor's actions in an active manner?
>
> FACTORY MANAGER: Of course, you don't have a choice. If you don't follow them up, they, erm … Because, ultimately, they might have seized on something, a key thing that you have missed. Consequently, you definitely have to follow up emerging information.

Considering the fact that the current Factory Manager was hired 3-4 months prior to his interview, we can assume that, in the quote, he is talking about his personal approach to knowledge acquisition and following technology, rather than organisational routines for the issue. And it can be concluded that this new member of the organisation has different experience of knowledge acquisition which is incongruous with the dominant reactive stance of the organisation. This incongruity

between the organisation and the organisational member may herald a more proactive approach by Suspension in the future.

4.5. Accelerator Automotive

4.5.1. Firm Overview

Accelerator Automotive is a medium-sized automotive component parts manufacturer producing brake discs and brake drums. The firm currently employees 200 people and it owns Turkey's largest and Europe's second-largest foundry. Accelerator was founded in a small city in northern Turkey, in the Black Sea Region, in 1962 to manufacture brake drums for trailers, trucks and buses for the replacement market. In the 1970s, major automobile manufacturers such as Fiat, Mercedes and Renault, and big vehicle manufacturers such as BMC, Chrysler, MAN and Mercedes, started to establish joint ventures in Turkey. Seeing the growing potential of the domestic market, the owner of Accelerator decided to move to Istanbul with the aspiration to grow the business further. The deterioration in the Turkish economy in the 1980s marked a second milestone in the firm's history. The decision to open up to the global market and to start exporting in 1987 so as to not to be affected by the hardship and instability of the domestic market gave Accelerator a real impulsive force. At the end of the first year of internationalisation, the revenues doubled from one million USD to two million USD. This exponential growth in export activity soon rendered the extant production capacity inadequate. From 1992 to 1994 the production facility was modernised from top to bottom through imported technology transfer.

In the meantime, in 1992, the *Association of Automotive Component Parts and Manufacturers* (abbreviation: TAYSAD) decided to build the TAYSAD Industrial Zone in Kocaeli (an industrial city situated 30 miles east of Istanbul) and Accelerator bought 50,000 m^2 of land in readiness for future expansion and investment. In 2000, when it became obvious that the firm had little opportunity for further factory expansion on its land in Istanbul, Accelerator management decided to build a new factory on the land they had acquired in the TAYSAD Industrial Zone. With the new headquarters and production facility, the production capacity almost quadrupled from

25,000 tones to 80,000 tones. As of 2008, Accelerator is a competitive brake discs and brake drums manufacturer with 25 million USD annual revenue and working with all the major players in the automotive industry – e.g. BMC, Chrysler, Ford, Hyundai, Isuzu, Iveco, Leyland, MAN, Mercedes, Renault, Volvo – and exporting around 90% of their production to these customers in Germany, France, Italy, Spain, the United Kingdom and the United States of America.

4.5.2. Assumptions about the Environment

Although Accelerator is in the same industry as Suspension Automotive, its managers have constructed a different perception of the industry to that of Suspension. Unlike Suspension, which perceives cut-throat competition with little potential for market expansion, Accelerator is always in search of new customers to work with, new markets to expand into.

> We commissioned an overseas firm to conduct a market survey in the US to determine the need for brake discs and brake drums. According to this market research, we saw that there was an annual market need of 10 million units in the United States … So, one of the most important markets is the US. Currently, we are exporting to the US, but only in very small quantities. We fail to hit the right price because of the euro-dollar disparity, because of the problems with the exchange rate. But we keep trying. We have to penetrate the US market. *(Chairman)*

> Other than the countries we were already exporting to we were receiving orders from the Nordic countries, including Finland, from Eastern countries, from Eastern bloc countries. Our capacity was 25,000 tones, we didn't have any more, we couldn't respond to those new orders. We had to do something about it. We had to find a way to expand into those new markets. That's why we decided to undertake this big investment [of building the new production facility]. *(Sales Manager)*

> Our current annual sales to the domestic market are 30,000 units. The demand is around 500,000 units. We have to take at least a 40% share of that market. I cannot see any firm that can compete with us in Turkey. No firm can compete with the system that we have. No firm has such a big investment, such technology. We need to do something for the domestic market, we will do something in this market. *(Foundry Manager)*

As the above quotes illustrate and the firm overview implies, Accelerator is managed with a never-ending drive to grow. They modernised all their equipment in the 1990s

when the Turkish economy was very volatile and exchange rates were very unstable; and they built an enormous production facility just at the time of a big macroeconomic crisis and financial breakdown in Turkey in 2000-2001. The firm's premises communicated this aspiration to grow further. The premises are located behind barriers and a security hut on an attractive green-field site. The building where the firm's headquarters is located was impressive with its spacious marble hallway and large stairs going up towards a very high ceiling. The meeting rooms, office space, dining hall and production area convey the same institutional and professional image which was very surprising to see in a medium-sized firm.

4.5.3. Fundamental Attitude to Innovation and Change

The fundamental attitude to innovation at Accelerator is broadly positive. The perceived nature of the automotive industry fostered an expectation that constant renewal of technology, continuous training in technology and the institutionalisation and professionalisation of organisational forms are a core rule of the game and the key to growth.

> Automotive is not in a stable market, it is a dynamic market. This dynamism complicates predictability. Anticipating customer behaviour becomes difficult. It complicates what to expect from the market. The fast-changing nature of technology and the rapidity of technological shift make it difficult for us to measure the local and international players' levels of technological development and performance. The shortening of product life-cycles and the emergence of high-tech and substitute products make adaptation and improvement necessary. Innovative applications intensify, technology transfers become a natural part of our organisation's functioning. Because it is a very dynamic market, we have to learn fast and increase our adaptability or we will be blown over by the competition. And we have to be committed to innovation. *(Chairman)*

The recent history of technical innovations achieved through machinery and technology investment has created some thoughtful reservations about the appropriate forms of innovation to pursue. Technical and process innovations targeted towards increased efficiency, productivity and cost-cutting seem to be valued more, or seen as more central to competitiveness, by Accelerator.

> The chosen production line increases productivity from 3,000 brake drums per day to 3,600. But it is not suitable for brake discs. The production line is suitable for brake drums. The

> whole design, the whole design of the foundry is established around brake drums. New products were never thought of. So, process innovations made to increase productivity in brake drums now handicap new product development for the automotive industry. *(Foundry Manager)*

> We currently have around ten process improvement projects. For example, we were able to process 20 drums with one tip. We launched a project that would bring our costs down by cutting tip use consumption by 300%. We target to process at least 80 drums with one tip and we will … We have other projects for productivity increases, savings and quality loss minimisation. *(Quality Manager)*

> We bought a new machine, ATAS, adaptable thermal analyses systems. We are making studies with this machine, in order to maintain our metal quality at a certain level. We don't want to have any problems due to metal quality. *(Production Engineer)*

> Process innovation is important for cost cutting and savings. You have to skin a flint. If you want to compete with China, with Europe, you have to consider process innovation. We have the instruments to do this in this factory. We even sell brake drums to our competitor! We told our competitor, 'We will enter this and this and this market; the best of all would be if you bought the discs from us and sold to those markets.' They are afraid of competing with us. *(Sales Manager)*

The Chairman said that the firm is committed to technical innovation but they are seeking to be innovative in softer aspects of the organisation as well.

> Our innovative applications to date were technology-oriented, oriented towards technology transfer, productivity-oriented. Organisational innovation, human capital took a back seat. Now we have to address human-orientation. Our technological investment is mostly complete. We should have succeeded in pushing technical innovations and organisational innovations simultaneously, but we couldn't. Organisational innovation requires human capital investment, technical innovation requires capital investment. We couldn't invest in both human capital and machinery. Now, organisational innovation stands in the foreground for us.

As the above quotes suggest, there seems to be a consensus about the meaning and priority of innovation at Accelerator. The interviewees described a firm which is committed to innovation and a firm that is in an environment where innovation is necessary in order to attract new customers and penetrate further into the market.

Accelerator Automotive is actively seeking to learn new capabilities and to extend its knowledge base. In 1986, when the firm first started its exporting activities, there was

no certifying institution for ISO certificates and the Turkish Standards Institution did not have any standards for brake drums. Accelerator had to find a way to reassure its overseas customers about the quality of its products.

> We couldn't set aside the opportunity to open up to overseas markets only because there was no institution in Turkey to certify and approve our quality. We had to do something. We researched the standards used abroad, prepared a file and sent it to the Turkish Standards Institution. They evaluated our file and decided that the standards that we had presented were appropriate. Consequently, they awarded us the *Turkish Standards Institution Certificate.* It can be said that we set the standard for the brake drums industry. *(Chairman)*

This aspirational approach is also evident in the value attached to ISO certification. Actually, quality certificates are not merely seen as evidence of an organisation's technical competences; they hold a broader meaning for the organisation.

> Continuous training, continuous audits are an integral part of ISO 9001. You have to improve your business and production processes continuously. In this respect, it benefits the firm in many aspects, going beyond quality improvement. This year we got ISO 169494, it is a certificate for the automotive industry. That brings many benefits to the firm. It disciplines the organisation. Unconsciously it makes us learn. Especially it makes us institutionalise our business processes. *(Chairman)*

> We had had ISO 9001 since 1998. We got 16949 this year. And 16949 wasn't a customer request, they didn't force us. We wanted to get it on our own. Why? We wanted to open the way to further improvement. In terms of quality, 16949 is the latest system, we wanted to have the latest system, to keep abreast of it, 16949 is customer-oriented. It was in line with our quality systems, with our own aspirations. We are trying to fulfil its requirements; we really want to use it in this way. It opens our way not only in terms of quality but on other fronts as well. *(Quality Manager)*

4.5.4. Approach towards Learning and Knowledge Acquisition

Accelerator management's determination to grow the business and expand its operations leads to top management's commitment and support for expanding the knowledge base of the firm by valuing individual learning and organisational knowledge acquisition more than ever.

> CHAIRMAN: …We have recently started to invest in our human capital, in individual learning and skills.

> SELEN: What is the assumption behind this investment decision? I mean, you were competitive, you managed to produce high-quality, low-cost products on time. And you did this with your extant labour force, qualified or unqualified. Are there any new developments necessitating being human-oriented, learning-oriented?
> CHAIRMAN: Previously, one person was able to control everything. Previously, there was one manager managing the foundry and the production facility. Today, there is one foundry manager and one production manager, and they report to the production director. Previously there was only one engineer reporting to the foundry manager and production manager, now there are 2-3 engineers reporting to each of the managers. So, while one person was capable of doing many things, with the growth of the firm now he cannot do the same job alone … Doing a lot of jobs with few employees can take the firm to a certain point, but if you want to grow further you have to grow your cadres. And this is not about hiring lots of managers, it is about delegation. While you can control 25 tons of production with 5 engineers, now you need 20 engineers. But that would make your firm unnecessarily large and would lead to a clumsy organisational structure. Instead of that, we have to establish an organisation with maybe 10 engineers and plenty of lower-level employees who can take on some of the engineers' responsibility, who have the technical background to understand what the engineer needs, wants, is asking for. Human capital investment is leading us towards this, towards self-organising, self-managing teams. We are in the process of providing individual professional development to our employees that will give our organisation really serious, technical, vocational experience.
>
> There is lots of competition in the main industry, between automotive manufacturers. Because of this, product life cycles have shortened. They launch new vehicle models in very short periods of time. And with every new model they should increase the comfort and security of the vehicle and be price competitive at the same time. These market dynamics create a situation in which the automotive manufacturers comes to you with new technical designs, new prototypes almost twice a year. They say to you, 'I have made this part, I am giving the mass production of this part to you.' If you are productive, if you are competitive, you can do it. If not, you lose a customer. Being able to adapt your production facility to produce new products, and keeping your costs down, requires research and organisational development. This requires learning by the organisation, it is a learning process. *(Foundry Manager)*

There is active interest in expanding the knowledge base of the firm and in training as many employees as possible to be knowledge-seekers. The only problem for Accelerator is the scarcity of skilled labour as explained by the Chairman and the Foundry Manager. Out of 150 operators working on the shop-floor, there are only around ten technical high-school graduates. There is only one engineer working on the shop-floor on each shift. According to the Foundry Manager, this is a sign of the

technical inadequacy of the firm, thus making technical innovations and technological improvements more difficult:

> SELEN: Who defines technical improvement areas and initiates technical innovation projects? Is it only you coming up with project ideas?
> FOUNDRY MANAGER: Of course, they are all things that I determine. I mean, data are collected but they are not analysed. For example, they know that they use 25,000 tips a year to process brake drums, but no one asks, "Why are we using 25,000, can we decrease our tip consumption to 12,000 units?" There is no questioning because there is no knowledge. This requires very technical, very advanced knowledge; it requires good analytical skills, knowledge about the micro structures of production. I am a metallurgy engineer and I have a Masters degree in this, I also have experience in these matters. That's why I can bring forward solution suggestions, improvement suggestions. But, before, there was no experienced metallurgy engineer; they were working with inexperienced colleagues. In some organisations, for example in firms applying Six Sigma, operators initiate projects and engineers work as supervisors. Here, operators do not have such technical backgrounds; they cannot think, let alone do something about it. Most of our operators are elementary school graduates. We recently started to hire technical high-school graduates. I am seeing a severe technical inadequacy in terms of the knowledge base, the skills base. In the foundry we have 86 employees; only 5 of them are technical high-school graduates. This number should be around 25-30, minimum.

The Chairman perceives the situation differently and assesses the organisation's technical competency thus:

> The problem of a skilled qualified labour force working as intermediate staff is a problem of Turkey. This problem has several dimensions. First, the students graduating from high schools are inadequate. They are not trained adequately for industrial life. Even the ones who have graduated from technical schools, from vocational schools, come only with theoretical knowledge; their practical knowledge is highly inadequate. Secondly, when they start their careers the realities of business life never overlap with their expectations. The working conditions disappoint them. And since young graduates are not yet married, the turnover ratio increases. Since turnover is high, in-house training becomes problematic. Moreover, because of the workload and the inadequacy of internal resources to deliver quality training courses, in-house training cannot be organised sensitively and efficiently. And so, employee training takes a backseat on the firm's agenda. For these reasons, the education level of our employees is a bit low.

On the production side, as the Foundry Manager asserts, Accelerator is seeking to recruit more engineers as well as operators who are graduates of industrial technical

high schools. The Chairman's commitment to employee development reveals itself in the diversifying and enriching of training opportunities for organisational members. There is some formal training going on in the firm, in line with ISO requirements, regarding quality, hygiene and safety issues. These obligatory courses are delivered in-house for lower-level staff, while middle management and senior management receive those courses from external consultants. The firm also sends its employees to participate in training programmes offered and organised by the Association of Automotive Parts and Component Manufacturers (TAYSAD):

> We organise in-house and externally-sourced training programmes for our staff. The external training for technical staff is delivered by TAYSAD. TAYSAD is a big advantage for the attainment of our annual training plan. TAYSAD has a serious and comprehensive training curriculum, and because our Chairman is an active and influential member of TAYSAD, I can communicate my special training requests to TAYSAD. After individual departments send their training requests to me, I look for overlaps between our training plan and the TAYSAD training calendar. *(HR Manager)*

Apart from training current staff, Accelerator works actively to alleviate the endemic problem of the scarcity of qualified labour in the Turkish automotive industry. In line with the discussion that we had with the Chairman about the technical adequacy of intermediate staff, which was quoted above, the Chairman stated:

> An industrial technical high school has been founded here, in the TAYSAD Industrial Zone. We, as members of TAYSAD, donated money and the school was founded here. It started its activities this year and we are pressurising the Ministry of Education to make sure that students receive education in line with the qualifications we seek. At the end of the day, it is not a private institution; you build the school and then donate it to the Ministry of Education. All students will be given internship opportunities at TAYSAD member firms. So we actively took part in this initiative, and it is a good initiative. But for the first graduates we need to wait 3-4 years.

Because of the qualified labour force problem, knowledge acquisition and generation in the firm is mainly concentrated in the hands of few people. However, observations indicate that these people are externally oriented in their knowledge seeking efforts. The HR Manager, after receiving her Masters degree in HR Management, worked at TAYSAD headquarters for two years, before being employed by Accelerator. As a consequence of this previous work experience, she networks with many other firms in the industry. She utilised her network while researching HR practices and applications

at major automotive firms before designing and implementing the suggestion box project at Accelerator. Similarly, the Foundry Manager utilises external knowledge sources as he continuously researches via the Internet and industrial publications for technological developments in the industry. He is also keen on partnering with other institutions, exemplified by his frequent grant application proposals to European Union funded projects, such as the Technological Development Programme and the Foundation of Technology Development of Turkey. The Chairman, apart from his close connections with TAYSAD, offers a rare example of the utilisation of external knowledge sources, as he recently completed PhD in management and has written a thesis entitled *"Relationships Among Family Influence, Top Management Team Issues, and Firm Performance: an empirical study of the automotive supplier industry in Turkey"*. This is certainly a very original way to think about solutions to overcome problems concerning the institutionalisation of his family-owned and family-managed business.

4.6. Dolphin Hotel

4.6.1. Firm Overview

Dolphin Hotel is a five-star holiday resort located in the Çeşme district of Izmir (Western Turkey) on the coast of the Aegean Sea. Dolphin started its activities in the summer of 1974 and currently employs 109 people on permanent contracts. During the spring and summer months, due to the seasonal nature of the business, the number of employees increases to 200-250, including temporary employees as well as interns. The hotel is run by a family-owned and family-managed holding firm operating in ten industries (food, beverages, paint, agriculture, livestock and fisheries, tissue paper, tourism, catering, international trade and energy, and power generation). In terms of its ownership and management structure, Dolphin is a unique case when compared with the four firms previously discussed. First of all, the firm is owned by a business group. Secondly, and more importantly, although the business group is family-owned, Dolphin is professionally managed and there are no family members in the management team of Dolphin Hotel.

The business group that founded and owns Dolphin introduced 21 firsts to the Turkish market, such as the first spring water bottling firm, the first privately-owned milk and meat factories, and the first privately-owned brewery. Dolphin Hotel itself was also one of the firsts introduced by the business group; it was the first thousand-bedded five-star holiday resort in Turkey and the Middle East. Apart from being a holiday resort, Dolphin has its own certified thermal cure centre which offers treatments supported by physical therapy with thermal and thalasso pools, massages including balneotherapy, aromatherapy, and mud and seaweed massages. The thermal cure centre is open to the public, meaning that people not staying at the hotel can also benefit from cure centre facilities. Dolphin has an agreement with the Netherlands Ministry of Health and each year Dutch patients visit the cure centre for treatment purposes. Additionally, the cure centre also attracts patient groups from Germany. Due to the management's positioning of the cure centre and the medical capabilities of the facility – which will be discussed further in the following sections – the Dolphin Cure Centre is selective in the populations of patients they want to attract. Dolphin chooses to treat patients with minor orthopaedic diseases since the management does not want to have physically challenged groups of patients with wheelchairs staying in a five-star holiday resort.

> It is an easy to task to invest more on physiotherapy and establish a physical therapy group for a hotel like Dolphin. But why we are not establishing it? We have never considered to position our cure centre as a physiotherapy centre. Because Dolphin has a 35-year long history; it has a concept. Physiotherapy cannot be a part of that concept. We don't want people with wheelchairs, crutches here. Because people come here for holiday purposes. When they use the same pool, that is not appropriate, they will discomfit holiday-makers. So who we want in our facility? We invite people living in Europe, alive and kicking people who want to ease themselves psychologically, to relax and vitalise. That's why we are not highlighting our treatment capacity much. If the holding management decides to change the hotel as cure and treatment hotel, then necessary actions will be taken. *(General Manager)*

From the perceived clash between the target customers of Dolphin and of the cure centre, it can be concluded that the cure centre is oriented more towards wellness than to treatment, and does not want to look attractive to patients with major orthopaedic and therapeutic diseases.

> Health tourism is a profitable business. Seahorse Hotel's 2007 profit from the just cure centre was ten million USD, the profit of the hotel is not included in that figure. But our holding

> management says that they don't want to have a cure element in this centre. We have this opportunity, but they choose to keep it slightly idle. Our centre is more for wellness purposes, for relaxation purposes, for rejuvenation purposes. Oh, but in the meantime if she has arthritis, arthrosis, calcification or neck pain, her pains will pass as well. We are utilising some of the modalities of physical therapy and that is enough to please our patients. *(Medical Superintendent)*

4.6.2. Assumptions about the Environment

The environment is perceived to be highly dynamic and competitive, and the dominant strategy is competition-based. Dolphin enacts an environment with well-defined boundaries and an industry with an established structure. Within those limits, the management aims to outperform its rivals and to grab a greater share of tourists visiting Turkey. The General Manager is focused on carving out a position in the face of competition from other holiday resorts located in well-known destinations such as Antalya, Bodrum and Marmaris in the existing marketplace. Based on his extensive work experience in various holiday resorts in Antalya and Marmaris, he believes that he can position Dolphin in the existing industry space and execute the right competitive strategy which will enable Dolphin to compete skilfully.

> The world is changing; the tools used to do business are changing. The approach that we thought to be right before might be wrong in today's conditions. Tourism has improved a lot. There are many holiday resorts doing a fantastic job in Antalya, in Bodrum, in Marmaris. People here are crammed into Çeşme, they do not see what is happening in the marketplace. My job is to show these people how this business can be run, how we can be competitive. We have to change Dolphin's traditional offerings if we want to be a significant player in the market. At the end of the day this is a commercial establishment. Our aim is to make money. And to make money you should have a sizeable share of the market. *(General Manager)*

Dolphin focuses on building advantages over the competition by diversifying its offerings and by assessing what competitors in Antalya and other cities do and then striving to do it better.

> Çeşme has lost its competitiveness based on sea, beach and sun. That was an effective positioning 10-20 years ago. We have to do other things. Thermal is God's blessing. The world is making a lot of money from it. Germany earns 50 billion euros every year from thermal tourism. 50 billion euros is a huge amount. And the water that we have, in this locality, in the sea in front of us, the thermal water beneath the sea, this locality exists in Slovenia and in

> Çeşme, nowhere else … We have such potential. Naturally, we should benefit from it to diversify our offerings if we want to increase the hotel's profits. *(Medical Superintendent)*

> Our thermal water springs are under the sea surface; the water is full of minerals and it has certain characteristics that enable the minerals to penetrate the human body fast. The world is spending millions of dollars to find this kind of water. And we have it but we were not marketing it. We have established the cure centre to market this water, to communicate its benefits and offer it as an auxiliary service, especially to attract tourists visiting Turkey in autumn, after the season in Çeşme ends. *(Marketing Manager)*

There seems to be no commitment or inspiration to seize new growth opportunities or to create new markets. Navigating the existing marketplace and penetrating further into the established market is deemed to be important for profit-making purposes. For instance, in Section 4.7.2, we will see that Seahorse Hotel – Dolphin's major competitor in thermal tourism – is not competing with anyone; the Seahorse management is focusing on expanding its market by creating new uncontested markets.

4.6.3. Fundamental Attitude to Innovation and Change

Since Dolphin was the first five-star holiday resort in Turkey, when it was first established it enjoyed a prosperous and active era. Starting from 1990s, with the improvements in Turkish tourism and the increasing competition in the industry, since tourism was only a minor part of the holding's activities, the holding management lost interest in tourism and did not lay any emphasis on Dolphin for a couple of decades. The firm had a very stable period where little improvement took place, except for some minor and routine alterations to the hotel facilities.

> After my recruitment as general manager in 2005, for the first time in the firm's history, we shut down the hotel for five months. All the guest rooms, recreational areas and meeting rooms, the whole interior and exterior of the hotel, were renovated and modernised. We shut down the hotel in November 2005 and reopened it in April 2006. While we were improving the physical conditions, I realised that the human resources were lagging behind as well. Since tourism was a minor part of the holding activities, the holding management had not attached much importance to it. It seemed that the holding had almost forgotten Dolphin's existence. A number of general managers were appointed during these stationary years but they all drifted into the same apathetic stationary spirit. Employees had forgotten how the hotel business

> should be run. I introduced a new hospitality and tourism framework with a new concept. *(General Manager)*

The General Manager has cast off the passive stance of Dolphin Hotel and is trying to encourage organisational members to accord high value to innovation and change. He sees organisational renewal as a high priority in the context of the kind of world in which Dolphin operates. He is aware of the various ways in which existing structures, processes, competences and mindsets were obstructing organisational renewal. But because of the quality of the staff and the lack of supportive cultural values these obstacles could not be resolved. While the General Manager personally generates new organisational processes (e.g. a suggestion box), new service offerings (e.g. dietotherapy) and encourages others to develop them via structures such as Blue Circle Meetings,[5] the members of the organisation are still suffering the effects of the stagnant and shiftless organisational climate that was dominant over the last couple of decades. Some evidence of this is the discontinuance of the Blue Circle Meetings in 2007 because of low participation.

The inherited structures and values of Dolphin tend to restrict the meaning, scope and place for innovation. But in the face of evident progress by new entrants, the General Manager wants the organisation to embark upon an ambitious conceptualisation of the importance of innovation, and he sees this as a matter of some urgency. On the other hand, the harsh competitive conditions force him to be the custodian of a market-focused regime. The way the external environment is perceived reinforces the reactive element to innovation and change in the sense that new service developments tend to be a reaction to other market players' actions, with the aim of outperforming rivals. The scope for innovation at Dolphin is limited to simply *reacting to the market* rather than *doing things differently*. It seems that Dolphin is having difficulty in balancing exploration and exploitation.

This adaptive approach towards solving problems and acquiring skills is reflected in Dolphin's utilisation of quality management systems. The firm holds ISO 9001 and

[5] Blue Circle Meetings derive from the concept of the *Quality Circle*, which was first established in Japan by Kaoru Ishikawa. A *Quality Circle* is a volunteer group composed of workers, usually under the leadership of their supervisor or team leader, who aim to identify, analyse and solve work-related problems and present their solutions to management in order to improve the performance of the organisation, and motivate and enrich the work of employees.

HACCP [6] certifications but, as will be further discussed in Chapter 6, the principles and application of ISO are modified in a way that is more congruent with the dynamics of the tourism industry. Except for the kitchen area, which is strictly monitored and controlled according to HACCP criteria, in none of the remaining departments is quality management practised systematically. When asked about the reasons for these 'modifications', the General Manager said, "We talked with the firm giving us the ISO certification, saying that this business cannot be done with so much paperwork. If we do all these we cannot possibly serve the customers. We need to modify it."

4.6.4. Approach to Learning and Knowledge Acquisition

The General Manager believes that training the employees and having a competent staff who are knowledgeable in more or less about every aspect of the hospitality business is critical because of simultaneity.

> Human relations is an integral part of the tourism industry. I mean, we are not a factory; we are not in the manufacturing business. In the paint industry, for example, before the product reaches the customer, it passes through several controls. And even if something goes wrong and the customer purchases a defected product, he can always return it and receive a new one. Whereas, because services is a sector in which production and consumption are contemporaneous, you do not have a chance to control it beforehand. For this reason, the service industry requires knowledgeable staff who are open to personal development and training. We have had ongoing training programmes since 2005.
>
> From the equipment to the knowledge, competency and skills of the staff, everything has to be perfect in tourism. It does not tolerate mistakes. There is no quality control; it is consumed right after you produce it. Once the customer finds a hair in his food, it does not matter if you change the plate. Mr. Timothy [the general manager] keeps saying to us, 'We are selling people's dreams. For 6-9 months they dream about their summer holiday. They will either achieve their dreams or we'll disappoint them and they won't. This is the game.' In production, everything can be tolerated … Moreover, in manufacturing, your customers are people who you know, who you work with all the time. When something goes horribly wrong, based on that one-to-one relationship you can make the customer tolerate something. You can compensate for it the next time. But here, the customer comes here once, stays 3-5 days, and

[6] Hazard Analysis and Critical Control Point (HACCP) is a systematic preventive approach to food safety that treats potential food hazards as a means of prevention rather than finished product inspection.

> then leaves. Within this environment, human resources becomes even more important; the existence of skilled human capital, continuous training and continuous development becomes even more important. *(HR Manager)*

Because of this sensitivity, the development of organisational knowledge base is deemed to be vital by Dolphin. But although having competent staff is seen as such a central pillar for the success of the firm, the biggest problem the firm faces, according to the HR Manager, is the lack of adequately-trained, skilled labour.

> There is 50 billion dollars of tourism investment in Turkey, but there are neither managers to manage this investment, nor qualified employees. Of course, the educated population is increasing, but not at the speed of the increase in investment. For some of our job assignments, we cannot find adequately trained staff. Sometimes the staff that we require are not accessible by us because of regional distances. Students in vocational high schools, in universities, in their 3rd or 4th year do not know whether they will work in the tourism industry or not, they are not sure. There are various reasons for that. When students start their internships they see the nasty face of tourism. Sometimes, generally speaking, not in the case of Dolphin, there are long working hours and inadequate lodging facilities; problems with students' social security and wage payments discourage them. Second, there is no coordination between the Ministry of Tourism and the Ministry of Education; there is no cooperation at all. This holds true for university education as well. The education the students receive and the openings in business life are completely incongruent. Lecturers have no idea about real-life applications, they just teach by the book. This is a problem. *(HR Manager)*

The scarcity of qualified workers is even more pronounced at the Cure Centre. Dolphin does not own its physiotherapy cadre and there is only one M.D. who has the role of Medical Superintendent. Even the Cure Centre Coordinator is not a physical therapist and most cure centre staff are either medical technicians (graduates with vocational high school degrees) or certified wellness and massage specialists.

> We don't need physiotherapists. Mud and seaweed are auxiliary treatment methods. You do not need specialists to apply them. We have massagers and that's enough. With thermal water plus massages, patients relax anyway. *(Cure Centre Coordinator)*

Dolphin prefers to develop quick solutions when internal resources do not match customer requirements.

> I am the only doctor here but there is the *Hatay Physiotherapy Branch Centre* here in Çeşme. We have an agreement with them. Based on that agreement, when we need to we can ask for a doctor and a specialist from them. There is also a private hospital, the *Sissus Hospital*, we have

> an agreement with them as well. There are physiotherapists there, and some physical therapy MDs. In case of necessity we can contact them and call on the specialists and MDs from that hospital. Similarly, we have a freelance physiotherapist; when we need him we give him a call and he comes and provides the required service. *(Medical Superintendent)*

The redevelopments and renovations in service offerings are effected as a response to customer demands. New technology investment is no exception to this reactive approach:

> As the demand for our cure offerings has increased we bought new equipment this summer. We have more professional thermal massage equipment that is replacing hand massage. We also bought a infrared machine that has a built-in timer. This new equipment enables us to take care of our customers while the other patients are being treated with that automatic machinery. We are taking steps which should grow our business while increasing customer satisfaction. Once we start to attract more customers, we will increase such redevelopment. (*Cure Centre Coordinator)*

Knowledge acquisition is concentrated in the hands of a few people. In the cure centre, all new knowledge comes through the Cure Centre Coordinator. She is the one that attends fairs and participates in training programmes. When a new technology or new treatment method is acquired she gets the external training and then trains her team in-house. She does not follow up with any literature and she does not participate in any international events. The Cure Centre Specialist does not have any aspirations to develop herself professionally or the curiosity to discover new things. I will not say that individual initiative is discouraged, but there is no evidence pointing towards a deliberate concentration of power for knowledge acquisition, and it is clear that it is not encouraged. When I asked the cure centre specialist if there was any sign of participative learning and knowledge sharing, she gave the example of practice-oriented training sessions that the Coordinator delivers where she shares her new knowledge with the rest of the team in a classroom environment by applying the new technique on one of the specialists. She perceived this interactive style as participative, which signals that they do not experience any kind of participative system in any aspect of their work environment.

In the hotel part of the business, knowledge acquisition is in the hands of HR Manager and perhaps some other senior managers that I failed to identify. He is the one who develops the training curriculum and decides what training the staff needs to receive,

in what format, and when. I did not come across to any sign of a participative curriculum development; neither the departments nor organisational members draft training proposals. They may have a say and they may voice their opinions, but there was no system that ensures that their opinions and ideas get heard.

4.7. Seahorse Hotel

4.7.1. Firm Overview

Seahorse Hotel is situated on a historic thermal spring source in Izmir, which is known to have been active since 1200 BC. Because of the existence of a thermal spring source, there were some existing state-owned facilities with thermal water pools and baths before the establishment of Seahorse on the same land. The Governor of Izmir in the 1980s, Hüseyin Öğütcen, during one of his overseas trips, visited the thermal facilities in Baden Baden, Germany and decided to build a copy of it in Izmir. As a result, Seahorse Hotel was opened as a thermal spring facility in 1989, owned and managed by the Provincial Special Administration of Izmir. In 1990, the new Governor of Izmir, Kutlu Aktaş, recognised the trend towards thermal tourism and decided to modernise Seahorse Hotel. A proper physical therapy clinic and resort were established in 1990 and Seahorse was incorporated in 1990 as a semi-independent body of the Provincial Special Administration. Although the facility was not technically owned by the state, the doctors and specialists were appointed by the state, so the cure centre part was an extension of the state's public health system. In 1992, the first patient group from the Norwegian Ministry of Health was received. This can be seen as the first wave of professionalization and institutionalisation of the firm. The hotel personnel from all functions said that Norway facilitated the redevelopment and improvement of the hotel and cure centre. The therapy methods, physical facilities and cuisine changed drastically to meet the requirements of the Norwegian Ministry of Health. The main driving force for the unprecedented organisational change was the appointment of the current General Manager of Seahorse in 2000. His appointment can be seen as the third milestone in the firm's history, following incorporation in 1990 and the agreement signed with Norway in 1992. In 2006, the cure centre was detached completely from the Provincial Special Administration; now they hire all

their personnel autonomously and, according to the interviewees, this has increased the quality of their workforce significantly, as detachment from the state meant the end of nepotism and favouritism and the introduction of objective performance measurement for all staff at all levels – a development that is perceived as the last stage of professionalisation.

Currently, Seahorse Hotel is Turkey's best facility in terms of physical therapy technology. Over 3,500 Turkish patients and 1,500 Norwegian patients visit the cure centre on an annual basis. The treatment success rate of the facility is around 90-95% per year according to the pre-therapy and post-therapy measurements of patients. Seahorse has a EUROPESPA-Med quality certificate. Moreover, they have their own quality management system and their processes are in accordance with the World Health Organisation and HAACP standards. Apart from Seahorse, the firm operates a ski centre situated at Mountain Bozdağ, Izmir and also owns a Geothermal Corporation providing heating to 24,000 houses in the neighbourhood using geothermal energy.

4.7.2. Assumptions about the Environment

Seahorse Hotel perceives an increasingly dynamic business environment with ever-changing definitions of success. The General Manager is aware of the fact that being the market leader today does not ensure future success; he knows that Seahorse cannot rely on having the best facilities and most advanced technology now as they will quickly become outdated.

> The market is very dynamic. Before you even have time to realise that the market requirements have changed, bam, there, the market has changed again. The definition of success changes continuously based on improvements in technology, customers, anything and everything. The same holds true for management and leadership recipes, such and such. What can be successful and functional today becomes outdated and dysfunctional even before you become aware of. You might have beautiful facilities but you still need to renovate them. You need an approach that can revise itself, renew itself. Once you fall behind, the game is over, it's too late, too too late. *(General Manager)*

As such, the General Manager is committed to spotting and exploiting every possible opportunity in the environment; he encourages employees to intrude into the

environment and import new knowledge to the organisation, and he allocates resources to searching for and trying out new ideas. Seahorse is so focused on exploratory action that none of the senior managers has ever mentioned competition, competitors' actions or market positions. They are not interested in what is happening in their immediate competitive environment and how they can respond to the environment. They do not think of an organisation-environment relationship in terms of alignment and adjustment. They *enact* their environment and *create* customer demand by exploratory action, rather than waiting to react and adjusting to the changing needs and requirements of the environment.

> What we are doing here is not a result of changes in the Turkish market it is not the result of competitive dynamics. We might be impacting on the dynamic of thermal tourism industry in Turkey, but the industry is not the reason behind our dynamism. If someone else was the General Manager, none of this would have taken place, neither in Seahorse nor in Turkey. *(General Manager)*

This quote vividly illustrates how the General Manager's cognition and interpretations instil an organisational vision and the values driving Seahorse's active penetration into the environment. A unique competitive strategy stems from this focus on penetration instead of adjustment:

> SELEN: How do you follow up developments in your industry?
> QUALITY SPECIALIST: Simple, we don't. In an age with so much access to information, bombardment by trend reports, industry statics, competitors' advertisements and technological product commercials, is it possible to claim you are keeping up with the developments in your industry? Anyway, where is our industry? Where should we direct our attention? Which competitors are relevant? Which industry trends are relevant? These are all very relative concepts with variable definitions. We stopped benchmarking the competition; we really don't worry what they are doing, that's their business. We care only about our business; we have our own market place, the rest is irrelevant for us.

It is with this mindset that Seahorse is expanding its market, and is creating new and uncontested markets in Turkey by stimulating customer demand.

4.7.3. Fundamental Attitude to Innovation and Change

Managers and even the employees that I interviewed in Seahorse were prepared to and used to thinking in an open and challenging manner about ways of working. They

were willing to question the contemporaneity of their service portfolio and the relevance of ways of organising. The General Manager is sceptical about stability:

> The business is dynamic, the competition is very, very fluid. And the only obstacle to embracing this dynamism and fluidity is *us*. The only thing that can stop an organisation from changing is the organisation itself. Because organisational life is about establishing mindsets and routines. Because without an established mindset you cannot function today. But what makes you function today brings clumsiness in performance. If this leads to conservatism, if this constrains innovation, then you are dead, sooner or later you are dead.

The General Manager clearly presents himself as a critic of established structures and as an enemy of conservatism. Innovation is perceived as something inevitable in every aspect of the business by the General Manager. Breaking limits and moving beyond current organisational structures and processes is his recipe for success. As a result, Seahorse's organisational functioning relies heavily on change, renovation and innovation.

Something very unique about Seahorse is the fact that some senior and middle managers are aware of different types of innovation, such as marketing innovation, service innovation and organisational innovation. There is also awareness of the different models of innovation. The General Manager and the Quality Specialist noted two basic models of innovation. First is at grassroots, where innovation wells up from people almost anywhere in the organisation, at almost any level, at any time when they pick up ideas from various internal and external knowledge sources. This is the sort of innovation where people come along and say, 'I have a great idea, I want to run with this'. Second is the hero model, where the saviour is identified and trusted to lead innovation. They argue that both of these models rely on some sort of plan to direct the innovative efforts of the firm, implying that there is also awareness about issues surrounding innovation management. Several managers in Seahorse emphasised the important role of organisational culture as a factor in encouraging innovation and shaping behaviour. There is a cult of personality in the firm – in the sense that you can go and make things happen.

> Seahorse is very flat in practice. If you see our organisational chart you will see lots of departments, levels, boxes – boxes, boxes everywhere. But you won't see much hierarchy in

> the place. You can go into a meeting room and see people arguing; you will not be able to tell who the so-called department chief is, and who the so-called specialist is. *(HR Manager)*

> You have probably realised that Mr. Tom's [General Manager] office and other top management offices are on the third floor of the hotel, right between the guest rooms. We are located just across the garden, in the senior and middle managers' offices, we are among the rest of the Cure Centre staff and the patients. So employees with ideas or problems or suggestions do not have to go far to meet with higher levels of management. Indeed, they are likely to run into Mr. Tom at least twice a day. So no one would have to wait very long to move information up or down. Employees might think that they are meeting Mr. Tom or me accidentally but that's not true. We make them bump into us; we create the ground for this to happen, on purpose. *(Cure Centre Director)*

A critical part of the approach to innovation is self-management and the explicit recognition that too much external control and direction are likely to constrain individual initiative, which is seen as a critical component for new knowledge to be created.

> QUALITY SPECIALIST: It is starting to happen, to the point where people self-organise. That is happening in the Cure Centre. They see an opportunity, they self-organise teams, they bring capabilities and competences across the Cure Centre into a project team of some kind. That is the first step in establishing the learning organisation, I think.
> SELEN: Are you familiar with the learning organisation concept?!? You know, my research heavily relies on the organisational learning perspective.
> QUALITY SPECIALIST: Of course I am! I read Senge's book and some other publications. I even read a PhD thesis on the application of the learning organisation concept in Turkish firms. You can borrow the copy that I have, if you like. A learning organisation is my ultimate aim. Once Seahorse becomes a learning organisation, my mission will be accomplished. By the way, what is the difference between learning organisation and organisational learning? I thought they were used interchangeably.

Interviewees' accounts of innovation at Seahorse were impressive on a number of fronts. First, they had clearly thought long and hard about the subject. Hence, they were able to articulate interesting propositions, something uncommon when compared to other participant organisations. Second, their ideas about innovation covered interlocking elements. They embraced aspects of organisational processes, culture and capabilities.

In sharp contrast to the pragmatist approach of Dolphin towards quality management in *coping* with the incongruence between business dynamics and ISO requirements, Seahorse was distinguished by its aspirational approach. Seahorse's General Manager also does not believe in the appropriateness of ISO 9001 for the tourism industry; consequently, they took a fairly radical step and decided to develop their own quality management system.

> We are currently developing our own unique quality management system, Crea-QM. Systems like ISO and TQM are developed mostly for manufacturing industry. They require gigantic documentation. And this makes the system clumsy, it is not suitable for the nature of the tourism industry … Plus, such a system after a while is perceived as a formality by the employees, it becomes torture for some people. Of course, our system is not very different from existing quality management systems. But it requires less documentation, and of course it has some standardisation but the human aspect is more pronounced then the bureaucratic dimension … This is a *very* serious project. First of all, it is unique to Turkey and it is particularly developed for the thermal tourism industry. It enables coordination between the hotel and cure centre, hospitality and health. Firms export quality and other management systems without really considering their applicability or suitability for their needs, and they pay big amounts of money for this. And we see that they [exported quality management systems] are not life preservers. When in congresses I said 'I am against ISO', everybody reacted, when I told them about my project they didn't believe me. But we will do this, surely we will. *(General Manager)*

Moreover, the quality measurement and evaluation part of Crea-QM is also far from a coping approach to learning. It is based on error prevention and continuous improvement, rather than error detection and correction. In departmental meetings, employees are encouraged to reflect on their daily experiences and work practices, and at the end of the meeting there is a list of learning points. With the assistance of the quality specialist, those learning points are transformed into an action plan, which will then be actively experimented with and integrated into organisational work. Once the improvement areas are defined and an action plan is set, further training is given to the employees, if this is required to solve the problem. Guest feedback and feedback from the Norwegian Ministry of Health also play a key role in this reflexive practice where all departments review the improvement areas put forward as feedback and use them in the process of continuous development of physical facilities, human capital and service.

4.7.4. Approach towards Learning and Knowledge Acquisition

Employees at all levels are expected to contribute to organisational improvement by importing new knowledge into the organisation, sharing their knowledge with others, and developing that knowledge into innovative and improved practices and processes. I would like briefly to explain the managerial principles and values driving the knowledge acquisition and dissemination efforts of Seahorse.

> We are dedicated to continuous improvement. I believe that you can always find something to improve. And how are we improving our firm? We are developing our business in the light of science. In Turkey, we can't limit ourselves to thinking commercially and focusing on competitive tactics. If you only think commercially you can't imagine the future, because you'll be so focused on outperforming your rivals TODAY that you'll occupy yourself with something purposeless. In fact, when you focus on the science, the philosophy of the business that you are doing, commercial success will come as well. What's our philosophy? To take health to the forefront. So we have to keep abreast of, to hold, all new knowledge that will help us to live up to our philosophy. *(General Manager)*

With this dedication to follow new knowledge and scientific improvements, external knowledge sources are valued highly. As will be further evidenced in Chapter 6, Seahorse has a very sophisticated training system to support knowledge acquisition and absorption. Employees are encouraged to follow the literature and to keep abreast of new technologies, emerging standards and criteria. Ample funding is provided for employee participation in external training and conferences, including overseas certification programmes and vocational training.

> Mr Tom [General Manager] trusts specialists' knowledge; he trusts employees' beliefs in what knowledge will help to improve the processes related to their jobs. So we don't have a standardised training curriculum really. Of course, we have some required training which forms the basis of Crea-QM. But we know that innovation is unlikely to come through such standard training. So we have a 100,000TL training budget for extracurricular training. Every single employee plans his or her own training programme. They decide on their own who will attend which training. It is truly a democratic system, in this sense. *(HR Manager)*

The unique quality system at Seahorse relies heavily on employee input and management is committed to improving the individual skills of its extant employees.

> The burden of this system is mostly on the lower echelons of the organisation, including middle management. I think that these people are the most critical people in the organisation,

> since the business mainly operates based on their daily activities. As such, I work together with these people. Our quality system does not create a separate organisational structure, it uses the existing organisational structure and I move between functional departments. We don't even have separate quality meetings, I join periodical departmental meetings and quality is one of the issues on the agenda. What would you call this? A matrix structure? So we use our extant employees, by forcing them to take the lead in quality we are also improving them. (Quality Specialist)

Even though the competence level and individual skills of organisational members have significantly increased over the years (60% of employees hold professional tourism and hospitality qualifications), continued occupational and professional training is the *sine qua non* of Crea-QM, and having a common knowledge base is deemed to be vital by Seahorse's management.

> Training is not enough for organisational learning. Training is individual learning. For organisational learning to happen "sentient standardisation" is needed. A common knowledge base should be formed. One of the employees might come up with a brilliant idea to improve organisational functioning, and the management can decide to implement it. But all other employees should have an understanding of what skills are required from them to carry out this improved practice, what knowledge set they will need to build that skill, and why this is requested from them. OK, the employee might have prepared a feasibility report and the management might have approved it. But he has to share his idea, and the knowledge that brought that idea forward, with the rest of the organisation. That's why we have meetings specifically designed for this kind of sharing to happen. *(Quality Specialist)*

There is also an occupational library in the firm, which is claimed to be unique in the Turkish tourism industry. There are sections targeting all departments, from gastronomy to customer relations, including a wide range of physical therapy and other medical publications. In the first couple of months, except for the medical section, the library was not utilised by many employees but according to the HR Manager's statement, the General Manager overcame this disinterest on the part of employees by highlighting the importance of the library in all of his communications and by walking the employees off to the library when he came across them while walking around the hotel.

4.8. Learning to Innovate and Innovating to Learn: two mindsets for learning and capability development

The observations made in this chapter reveal that the six firms differ significantly in their assumptions about the environment, their attitudes towards innovation, their knowledge acquisition practices. But, regardless of this, all six firms have been successful in their respective industries over many years, which suggests that they are capable of developing and altering organisational capabilities as necessary for competitive performance. Thinking through the similarities and differences between these six successful firms, I was pleased to see that the *a priori* classification of organisations as *adapters* and *innovators* seems to hold true. Comparison of the six organisations in this chapter has exhibited two distinctive mindsets in learning and building capabilities: *learning to innovate* and *innovating to learn*. In the former mindset, innovations (adaptations) result from purposeful learning in an attempt to respond to exogenous shocks, while in the latter, innovations and other organisational development projects are seen as learning experiences in themselves, which are then a powerful source of endogenous triggers that steer future actions in relation to learning. Gold Oil, Accelerator Automotive and Seahorse Hotel demonstrate proactive, dynamic, participatory and forward-looking learning mindsets – *innovating to learn.* Conversely, Crystal Oil, Suspension Automotive and Dolphin Hotel exhibit problem-driven, expert-based learning systems that are triggered to address the immediate organisational needs for resource accumulation and expansion – *learning to innovate*. There might be an inclination to identify the first group of firms with learning organisations and the other with non-learning organisations. However, given their comparable competitive performance, these labels become questionable. I can only venture to say that while *learning to innovate* is related more to exploitation and single-loop learning, *innovating to learn* calls for exploration and double-loop learning.

This is in line with the enactment perspective that this study advocates, for the assumptions about the environment are dependent on the perceptions of organisational members. From Duncan's (1972) conceptualisation, I suggest that this dimension varies from being simple/static on the one hand and complex/turbulent on the other. If an organisation assumes that the external environment in which it operates in is simple

and static, it will see the environment as predictable and determinant. The simple part refers to the degree of complexity of the environment, meaning that the organisation takes few factors in its environment into consideration while developing its strategy. As the organisation assumes that it is operating in an objective environment, it uses few sources of information and refers to few locations for acquiring knowledge. This is because, if there is an objective environment, then all sources of information and knowledge are similar to one another. The static part of the dimension describes the degree of dynamism in the environment. Thus an organisation whose managers assume that the environment is static will think the environment stays the same over time and will not pay attention to many of the changes taking place in the organisation's environment as those are not relevant to shaping its interpretations. In contrast, when an organisation assumes that the external environment is complex and turbulent, the environment becomes subjective and changing. In order to deal with uncertainty and change, organisational members will search the environment formally, utilising a diversity of sources of information and knowledge residing both inside (staff, meetings) and outside of the organisation (consultants, trainers, publications). This chapter illustrates how managers of organisations operating in the same sector assume differing degrees of environmental dynamism. For instance, participant companies operating in the olive oil industry, which is known to be a traditional industry, perceived distinctively different rates of environmental change, although they are based in the same geographical region, serving the same geographical region, had comparable financial resources, and were at a similar life cycle stage. While Crystal Oil perceived a great deal of stability in their external environment in terms of the changes that they need to respond to, Gold Oil perceived some degree of dynamism in the olive oil industry. More specifically, Gold Oil referred to the new entrants to the olive oil market, especially by multinational companies, and interpreted this as a positive factor that would grow the size of the Turkish olive oil market. However, the same external event was not even mentioned by Crystal Oil managers. This example vividly demonstrates how assumptions about the environment influence events that would be "bracketed" (Weick, 1995) and might gain a foothold in the organisation's actions and processes.

When organisations notice a change in the environment, bracket and assign a meaning to it, depending on how the issue is interpreted, they might be willing to take an action

against that event in order to align the organisation with the new environment. Whether becoming endogenously or exogenously interested in implementing an innovation, such as a new technology or practice, organisations can orient themselves by responding to the need to change in one of two ways. They may approach the challenge to change as something with which they need to cope, or as an exciting learning and improvement opportunity (Edmondson, 2003). A coping approach is characterised by protective defensive aims, and by technically oriented adaptations specifically focusing on improving performance. Organisations with a coping-oriented approach perceive learning as a problem-solving error correction process and expect to observe immediate results. In contrast, learning-oriented firms frame innovation and change as an exciting learning opportunity. The value of learning resides in the process rather than the outcome – though the outcome is obviously an essential part if not a primary short-term consideration. Learning is not about problem-solving, it is about gaining understanding of the self, the environment in which one operates, and one's position within that environment. In this way, change and innovation are perceived as a continuous state of being. The most expressive example is the contradictory approaches of Dolphin Hotel and Seahorse Hotel to the adoption and implementation of quality management systems. Both organisations were exogenously motivated to have a quality system in place, in order to become members of the highly-prestigious ESPA Association and to get the EuropeSPA-med seal of approval. Dolphin chose a coping approach, adopting ISO 9001 which is known to be highly unsuitable for the tourism industry, and perfunctorily applying it by bending its rules and marginalising its principles. Meanwhile Seahorse Hotel, by embracing the difficulties that ISO 9001 would pose given the highly dynamic work environment of the tourism business, chose a learning-oriented approach and developed its own quality management system.

There is a direct link between the organisation's approach to the environment and how it approaches new knowledge. At any given time, organisations tend to locate themselves between two assumptions: knowledge is an indispensable good and knowledge is a necessary evil. In this way, an *innovating to learn* mindset recognises that, in an era of change, organisational knowledge base has to be continuously synchronised with the environment. These organisations are characterised by a viable and active interest in external knowledge. Because the environment is seen as a place

full of exciting learning opportunities, these organisations openly and actively engage with external knowledge sources. Enhancing and extending the knowledge base are deliberately and thoroughly pursued by management. The organisation and managerial traditions are best characterised by an attitude that supports continuous improvement in all business functions, and by a desire for renewal through technical/scientific knowledge and managerial expertise. Management and the organisation attend new suggestions sympathetically and encourage the search for and experimentation with new ideas that have less certain immediate outcomes – a behaviour exhibited by innovative firms that allocate resources for exploration and experimentation. They aspire to expand the knowledge base of the firm, even when there is no immediate need to acquire knowledge. Especially at Seahorse Hotel, there are several instances in which organisational members attend training programmes and conferences which are beyond the scope of the organisation's service offerings or are tangential to their jobs. The outcomes from these training events might only be applied several years later, as was the case with the Waist School Project at Seahorse, which caught a physiotherapist's attention in a conference that she attended and was applied three years later. On the other hand, a *learning to innovate* mindset, as a result of a coping approach, is driven by the intention to augment knowledge quickly and efficiently enough to get their problems solved. This mission-driven approach to knowledge results in a localised knowledge search under managerial discretion and control. The distribution of new knowledge to the organisation is also focused, resulting in specialised knowledge pockets of experts within the organisation. As such, these organisations adhere to the belief that organisational members are the main repositories of acquired knowledge. This approach to human resources stands in contrast with how personnel are perceived by the *innovating to learn* mindset, in which employees are believed to be potential knowledge-seekers.

4.9. Conclusion

In this rather descriptive chapter, I have aimed to report, in detail, the insights into organisational antecedents that I predicted would have an impact on capabilities. The chapter has described various organisational perceptions and behaviours and established some initial analytical links with organisational learning processes. I have

not attempted to make any judgements or evaluations but simply to introduce the richness and variety of organisational life. The observations in this chapter indicate that organisations have different assumptions about the external environment and the organisation-environment relationship which plays an important role in determining the organisation's and the individual's approach to the environment, to new knowledge and to learning. The learning mindset of a firm is influenced by its managerial interpretation of environmental events, and consequently sets out a motive for organisational activities and guides the process of prioritising the development and deployment of certain capabilities. Learning mindsets are compared in Table 4.1.

Dimension	**Learning to Innovate**	**Innovating to Learn**
Assumption about the environment	- Environment is given, static and simple - Environmental events are viewed as threats, the focus is on adaptation	- Environment is transient, dynamic and turbulent - Environment is viewed as full of exciting opportunities, the focus is on active penetration
Fundamental Attitude to Innovation and Change	- Coping	- Learning
Approach towards Learning and Knowledge Acquisition	- Defensive - Exogenous valuation of knowledge	- Aspirational - Endogenous valuation of knowledge

Table 4.1. Learning Mindsets

The importance of a learning mindset lies in explaining what the approach of the organisation to the external environment and knowledge is, and how it drives the organisation's learning and capability building processes. After thinking through the similarities and differences between these six successful firms, and as the analytical links related to organisational capability development surface further, I shall continue by interpreting the empirical data even more thoroughly and systemically. In the next two chapters I continue with a thematic analysis which will construct an overall synthesis to explain the subtle differences between the six cases.

CHAPTER 5
EXPLORING THE NATURE AND CONTENT OF ORGANISATIONAL CAPABILITIES

5.1. Introduction

Section 2.2 provided an almost chronological evolution of organisational research, studying the relationship between firm skills and capabilities and competitive advantage. As was extensively discussed in Chapter 2, the resource-based view of the firm and the literature on dynamic capabilities provide an influential and well-debated theoretical framework for understanding why some firms are more successful than others and how they achieve and sustain that competitive advantage over time (Barney, 1991). RBV makes two main assumptions: (1) resources and capabilities are heterogeneously distributed across firms and (2) those resources can become a source of competitive advantage when they exhibit VRIN properties. These resources must be properly managed, and benefiting from them relies on the managerial ability to accumulate, divest, enrich, pioneer and leverage firm resources appropriately. As such, RBV gave a substantial role to managers' decisions and organisations' actions in order to acquire and deploy resources that would secure competitive advantage and enhance market performance. RBV has been considered static and deterministic because it assumes frictionless and immobile product markets, which cast doubts on the practicality of RBV theory for volatile and unpredictable environments. Consequently, the dynamic capabilities perspective was introduced; this argues that firms should develop dynamic capabilities that will enable them to generate and reconfigure new resources for sustainable competitive advantage. The research suggests that the dynamic capabilities approach is a more comprehensive and integrative way of understanding the sources of competitive advantage; it recognises the key role of managerial proactiveness as well as the external context within which the firm operates. Furthermore, a small minority of dynamic capabilities theorists have explicitly acknowledged the idea that managers' cognitions and interpretations of contextual factors do have important implications for the development and deployment of certain dynamic capabilities. While the majority of dynamic

capabilities scholars suggest that dynamic capabilities are contingent on environment dynamism, alongside other exogenous factors, this group of scholars suggest that dynamic capabilities are also based on managers' interpretations of the degree of dynamism in their environment.

The primary research focus for the majority of dynamic capabilities literature is however not on understanding the implications of managerial interpretation *per se* on capability development. Rather, they position perceptions, interpretations and cognitions as limits on human personality, as factors that lead to imperfect and incomplete information about the external environment. Very like the neoclassical economists, both RBV and dynamic capabilities alike expect the organisation to succeed in aligning internal organisational resources and processes with the pace of environmental change for sustained competitive advantage. Even the researchers who account for the mediating role of managerial cognition and interpretations have to encompass the 'real', 'external' environment and the partly 'mistaken' beliefs of managers. From a practical standpoint, the challenge for managers is to minimise the gap between their flawed perceptions and the reality of their environment.

Recently, under the influence of the interpretive turn in social sciences, I have argued that another perspective vies for attention. In Section 2.2.3, I argued that the enactment perspective can lead to a better understanding of the genesis and evolution of organisational capabilities. If we rule out the inherent assumption that an objective environment does exist, in line with the argument of Burrell and Morgan (1979) and Weick (1979), then what is the implication for organisational capabilities? If there is no objective environment to be discovered and optimally perceived, then what are the implications for the idea of alignment which is forcefully argued by RBV and the dynamic capabilities scholars? This study was initiated with the desire to explore the implications of the enactment perspective in the conceptualisation of organisational capabilities. Cause-effect logic, which is dominant in capability research, is eschewed in favour of an exploration of managers' reasons for organisational actions and the meanings they assign to external events and agents.

By empirically studying organisational capabilities, this study adopts Helfat et al.'s (2007: 1) definition of dynamic capabilities; "the capacity of an organisation to

purposefully create, extend and modify its resource base". These resources can include human capital, including the skills of managers and employees, the facilities of production and distribution, and other technological capital and knowledge-based capital (Chandler, 1990; Easterby-Smith et al., 2009). As Easterby-Smith et al. (2009) note, this definition is precise enough to be studied as an identifiable specific organisational process, yet broad enough to allow researchers to investigate the nature of the concept from different perspectives. Most importantly, this definition also makes clear that the word *dynamic* refers neither to the environment nor to capability, but rather to changes in the resource base; it refers to the renewal of resources. This is an important distinction to make since, as pointed out in Sections 2.4.3 and 3.4.2, this research also studies the nature of organisational capabilities in not-so-dynamic industries. When talking about capabilities, I refrain from using the word dynamic when referring to capabilities, and prefer to use the term *organisational capabilities,* because the term dynamic evokes the shifting character of the environment and has been unconsciously associated with rapidly-changing industries by various strategic management scholars (e.g. Hayes et al., 1988 cited in Teece and Pisano, 1994; Prahalad and Hamel, 1990; Teece and Pisano, 1994). However, even in industries where the pace of innovation is not accelerating, organisations still need to develop certain organisational capabilities in order to gain or retain competitive advantage, and occasionally need to renew them to respond to sporadic shifts in the business environment. Organisational capabilities can, potentially, be adapted, or even renewed and reconfigured, during shifting environmental conditions. But as the research data presented and discussed below indicate, this is not an essential attribute of organisational capabilities and thus not an integral part of the definition.

Replacing the term dynamic capabilities with organisational capabilities in the confines of this thesis also serves as a way for me to disassociate myself from the unwanted theoretical baggage that comes with the former term. There are several reasons why I choose to do so. First, because the term dynamic was introduced to the field of organisation studies by strategic management scholars, it implies that capabilities need to be strategic, meaning that "a capability must be honed to a user need (so that there are customers), unique (so that the products/services produced can be priced without too much regard to competition), and difficult to replicate (so that profits will not be competed away)" (Teece and Pisano, 1994: 539). This definition is

an extension of RBV in dynamic markets; thus it suggests that capabilities will enable the firm to develop valuable, rare, inimitable and non-substitutable organisational resources, which can then be related to activities addressing specific markets and customers in distinctive ways. But as the research data suggest, not all competitive firms are necessarily heavily engaged with such fresh value-creating innovative activities. The case of Crystal Oil, as described in Chapter 4, suggests that it is possible to remain competitive in the market for prolonged periods despite low firm dynamism. Second, although Eisenhardt and Martin (2000) account for variations in dynamic capabilities related to market dynamism, they still refer to mindful and effective organisational processes and routines based on valuable knowledge and rare expertise. As will be discussed in the forthcoming section, although all capabilities are inherently effortful accomplishments, they may be ingrained in very simple processes that rely extensively on an existing knowledge base; and in this sense, they are neither unique nor inimitable but still value-creating in some other way. In other words, capabilities leading to organisational competitiveness may not be that 'dynamic', and because the research data indicate this, I refrain from using the word dynamic when talking about organisational abilities or *capabilities* that are fundamental to the competitive advantage of a firm.

The purpose of this chapter is to extend our understanding of organisational, or 'dynamic', capabilities. Since capabilities are processes and routines embedded in firms, I assume an organisational and empirical lens. By examining the nature of organisational capabilities, and how and why those capabilities are built, I propose three distinct types of organisational capabilities in Section 5.2: operational capabilities, adaptive capabilities and generative capabilities. The idea of categorising and typologising organisational capabilities may appear counter-intuitive, as capabilities are often characterised as being unique to individual firms (Teece et al., 1997). Yet, research data empirically indicate that specific organisational capabilities exhibit some common features across participant organisations, suggesting that a pattern exists across the organisational capabilities that are chosen to be used and built by firms when dealing with specific organisational and technological challenges. The dynamics of industries that participant organisations operate in, and their assumptions about and interpretations of their respective industries' dynamics, differ; thus the motivations for building a certain capability probably differ significantly, but research

data on sources of firms' competitive advantage still suggest that firms end up with capabilities that are similar in terms of key attributes, a phenomenon that Eisenhardt and Martin (2000) term "equifinality". This section provides empirical validity for Eisenhardt and Martin's (2000) argument that dynamic capabilities exhibit common features, although they are all idiosyncratic in their details; and, additionally, it extends Eisenhardt and Martin's (2000) work by further detailing and distilling commonalities and idiosyncrasies. Section 5.3 focuses on the patterns of these distinct types of capabilities and shows that they are influenced by, and vary in relationship to, a variety of factors, including market dynamism, based on the study by Eisenhardt and Martin (2000) in which they show empirically that capabilities obtain different characteristics in markets with different rates of change. I end the chapter by focusing on an exploration of how these capabilities are built, indicating that different types of capabilities require different capability development approaches. I believe, overall, that this chapter offers an interesting lens, both to academia and to management, if we want to influence, sustain and manage organisational capabilities.

As the discussions throughout the chapter will illustrate, distinguishing between three types of capabilities is useful for at least two reasons. First, analytically, each type contributes a different aspect of the formation and maintenance of competitive advantage and market performance. Operational, adaptive and generative capabilities usually coexist, and every organisation owns each to some degree and in some combination, as noted in Sections 5.2 and 5.3. Still, one dominates and thus gives a different quality to the organisation's strategic posture and attitude towards learning and innovation. Second, practically, each type of capability requires a different kind of approach in order to be built and fostered. The approach to developing generative capabilities, which requires opportunities for opportunity search and experimentation, is different from that to developing operational capabilities, which often calls for quick fixes of particular problems, which is a point that will be discussed in Sections 5.2 and 5.4.

5.2. The Capability Triad

5.2.1. Operational Capabilities

Operational capabilities are "zero-level capabilities" (Winter, 2003) that are necessary for the firm's performance of basic operational and functional activities (production, sales, distribution, etc). They reflect the basic level of skills, knowledge functionalities, technology and information that is needed by a firm that wants to earn a living in a particular industry, and which will enable it to produce and deliver its product/service offerings to its customers. It is important to note that the fact that operational capabilities are basic does not mean that they are trivial and thus expendable. On the contrary, they are essential, as they are the foundation of a firm's continued operation in any given industry. Without them, the firm would not be able to operate its machines, manufacture its products at a certain quality level, and would not be able to sell to and collect revenues from its customers. Moreover, as Collis (1994) argues, in order to remain competitive in an industry for many years it is not enough merely to be able to carry out these functional activities. It is crucial to be able to perform them more efficiently than competitors. In this respect, operational capabilities can be termed developed abilities in their performing of basic functional activities.

Table 5.1 summarises the research data for a selection of the operational capabilities existing in participant organisations. As can be seen, all six firms have operational capabilities. Given the definition of operational capabilities, it is not surprising to see that the concept of operational capabilities is applicable to all six cases, because, as was discussed in Chapter 3, all six firms are major players in their respective industries and have operated successfully for many years. And this suggests that they carry out at least some of their functional activities better than their competitors, signalling the existence of operational capabilities. This list of operational capabilities is not indicative, meaning that they are not the only operational capabilities existing in these firms; they are examples extracted from interviewers' accounts on their views about the sources of firm competitiveness. The examples presented in Table 5.1 also indicate that, based on their strategic posture or existing core competency and

knowledge-bases, different organisations choose to focus on different functions to make the firm competitive.

Although operational capabilities exist in all six cases, as indicated in Section 5.1 and which will be further discussed in Section 5.3, there is one capability level that the firm predominantly operates at and invests in. In the case of operational capabilities, Crystal Oil is the only firm heavily investing in the development of operational capabilities and, for this reason, out of the examples provided on Table 5.1, I will expand on the case of Crystal Oil while further elaborating on operational capabilities.

Firm	Operational Capability	Description	Function
Crystal Oil	Relationship management	The Crystal sales team know the sensibilities of their customers and distributors, as they have built a trust network by working with them over generations, and act accordingly by protecting the interests of their customers and distributors.	Sales
Gold Oil	Product differentiation through branding and packaging	Gold's packaging strategy is based on the customisation of product packaging in accordance with the point of sale's position in prestige-based business market segmentation.	Marketing
Suspension Auto	Integrated production model	Suspension's production system integrates all the manufacturing stages from compound and mould manufacturing to vulcanisation and testing.	Production
Accelerator Auto	Cost-effective production model	The technological investment implemented for production line improvement enables Accelerator to bring down their cost/quality ratio by simultaneously increasing their quality while decreasing unit production cost.	Production
Dolphin Hotel	Brand image and reputation	The name Dolphin Hotel and the holding company owning it have a strong name in the consumer market. By being the first big holiday village in Turkey they became a myth in the region. Their marketing and all other activities maintain the brand image and live up to customer expectations.	Marketing
Seahorse Hotel	Knowledge-based approach to business development	The organisation prioritises scientific principles and the value of knowledge. Specialist knowledge and informed opinions is valued in scoping new services and applications.	Business Development

Table 5.1. Operational Capabilities in Participant Organisations

Examples from the remaining five firms, since they predominantly exhibit capabilities at other levels, will be discussed in Sections 5.2.2 and 5.2.3.

Contrasting with Winter's (2003) view on zero-level capabilities, I would claim that operational capabilities, as defined and explained in the context of my research, are not static; they actually adapt incrementally. Even if their products and markets remain the same for long periods of time, firms can and have to renew their operational capabilities during this period as and when new technologies become available or if new industry or regulatory standards are imposed. If operational capabilities are not concerned with change when new quality or safety standards for an existing product are introduced by regulatory bodies, e.g. because the firm is not aware of or adapting to changing conditions, then it will not be able to sell and generate revenue from the same product delivered to the same market. Hence, if operational capabilities are vital for firm survival, then, by definition, they are not and cannot be immune to change. But it is important to note that, although operational capabilities can be subject to change, their modification will always be targeted towards survival and this occurs often – if not always – due to *force majeure* from the environment. Thus, management will consider reconfiguration, modification or – if necessary – the acquisition of skills technologies, knowledge and information only when change is unavoidable and after the change at stake has become a norm in the industry. This means after the new practice, technology or knowledge has been acquired and is being practised by all major competitors in the industry. Because these firms are late adopters of a particular innovation, even the modified set of capabilities will have come to include the basic elements for operational survival by the time they are acquired and practised by the firm. Put differently, the modification of a given operational capability *per se* would not make the firm more competitive. Changing operational capabilities will only enable the firm to maintain its relative competitive advantage compared to the leading players in the industry.[1] From this perspective,

[1] Hypothetically speaking, assume that your firm's operational capability lies in distribution. This is the functional activity that you perform better than your competitors. If your competitor's efficiency in managing distribution is represented by D – which is the minimum level of ability that is needed for any firm wanting to survive in the industry – let us represent your efficiency level by D+1. Then, assume that a new distribution management software program is released. Competitors adopting this software are now able to know the status of their customers' orders and suppliers' service levels. Because this software gives them control over their distribution network, assume that your competitors have increased their efficiency level to D+2. In order to maintain your competitive advantage, you will eventually adopt this particular software as well. When you adopt, the level of efficiency of your

although a given operational capability is subject to change, the relative competitive advantage of the firm remains static.

If differentiation is not possible through operational capabilities, one might wonder whether it is possible to survive in an industry, for sustained periods of time, by focusing on and investing in operational capabilities only, given the turmoil that the global competitive landscape is subject to. Crystal Oil presents an interesting example, demonstrating that an organisation can remain competitive through building mainly operational capabilities only, as it is the only participant organisation using a particular type of organisational capability. First of all, it is important to remember that operational capabilities become firms' capabilities because these firms perform certain functional and operational activities better than their competitors. In the case of Crystal Oil, one of the main reasons why they have managed to sustain their competitiveness in the olive-oil industry for over 70 years is because their skills of relationship management in sales and distribution. Their competitive advantage is less about their product – the product is of good quality but not significantly better than those of major competitors – but a whole lot more to do with how they connect and engage with their distributors. Their skills have engendered trust in their distribution network – they have distributors that they have been working with for three generations – and this enables them to get under the skin of what is going in distributors' companies and to watch over distributors' interests and needs. While they protect their distributors from the negative effects of the competitive environment, such as price fluctuations, the distributors watch over Crystal's interests in their sales area and also promote Crystal's products to end consumers. Secondly, it is also important to remember that operational capabilities are not static and that they are adjusted incrementally to keep up with new environmental exigencies. As Crystal Oil's Chairman Norman notes, "We make our investment in piecemeal fashion, by slow degrees … We implement whatever technology and quality ordain." One of the things that this quote highlights is the stepwise approach to change which suggests that the management refrains from drastic changes and large-scale investments, "like building a brand new factory" as Norman explains.

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distribution system increases from D+1 to D+3. Because your competitors' level is D+2 – which is the new required minimum level of ability to compete successfully in the industry – although you have renewed your operational capabilities your competitive advantage relative to your competitors remains at the same +1 level.

The other thing that requires further explication is that change and investment occur to carry through external imperatives. Crystal Oil is the only research participant that does not have ISO or any other quality management system in place. And from the accounts of the production manager, Ripley, it is understood that they do not have a quality management system because they do not need one.

> Being able to follow your product from raw material purchase to end product sales to customer, from production to customer, the system of forward tracking is something beautiful. But you need a team to do that, a good team. And this requires investment. Family firms tend to think minimalistically ... We do not have HACCP or ISO because we don't need that right now.

Although Ripley thinks that they could benefit from having a quality management system, not only for quality purposes but also for smoother and predictable production cycles, he cannot convince Norman to apply for ISO. This is because ISO requires commitment, it requires serious commitment in the area of human resources, including hiring and continuous training costs. First of all, commitment on this scale does not fit the passive approach of the management. But more importantly, Norman objects to adopting ISO or HACCP principles because the application of these is not necessary for Crystal's survival. However, in line with the requirements of the Ministry of Agriculture and Rural Affairs, they do check their products for quality and food safety. Ripley explains how the quality check is done:

> Three colleagues work in the lab. One conducts flavour tests, checks the taste. The other two check the quality, they run tests on samples taken from the tank before the bottle-filling process starts, they check for foreign substances and track the acid and peroxide levels. These are the minimum standards and this is what we do.

These minimum quality and flavour tests are stipulated by the Ministry and are necessary prerequisites for being allowed to sell in the market. Because running these basic tests – that have to be performed by every single olive-oil producer – is essential for Crystal's existence in the industry and its continued operation and revenue generation, the investment to establish this small quality laboratory was made, but no more and no less.

If that is so, what happens when satisfying minimum requirements become inadequate for the survival of the firm in the industry? The answer is that they change when they

are pushed into it by *force majeure*. Recently, they started to have problems in hitting a consistent quality level for their products. Because this started to incur additional production costs and led to a drop in the desired level of profit, Norman decided to improve the oil refinery system single-handedly. This case shows us that when operational success is at stake, passive management can take on expensive commitments. But it is interesting to see that this commitment which calls for significant investment emerged in sporadic fashion as a solution to the firm's operational problems and it is followed without thinking about its consequences. As Ripley explains, building a new refinery system in the middle of the factory land while production continues in the other corner might stall production and could create bigger quality and hygiene problems. He thinks that installing new machines and tanks will put production at risk. Because action to change is not taken in a planned and informed way, while trying to solve one problem they risk creating multiple problems that could have bigger repercussions. Since management only (re)acts to do what is necessary, they are fire-fighting, and if new fires are set then they will come up with alternative behaviours to fight those fires too until survival and continued operation are guaranteed. So, speaking hypothetically, if construction work creates food safety issues and prevents the distribution and sale of products, then management will come up with a corrective action to fix that problem and go on with production.

Only doing what is needed for survival in a sporadic fashion interferes with the organisation's capacity to see and consider its next steps. As Ripley points out, the new refinery system will solve flavour and quality problems but it will not be possible to utilise its full capacity because the rest of the production process is not as sophisticated as the refinery system. In order to standardise the quality level of the raw material entering the refinery process, the system is computerised. In order to keep up with the speed and precision of the refinery system, the next steps of the production process should be fully automated as well. But at Crystal Oil the production is semi-automatic, meaning that they still rely on significant manpower for bottling, labelling and warehousing after the refinery phase. These will continue to be completed at the existing slower pace creating a bottleneck in the whole value chain. However, if more automation and more technology were integrated into the whole production system, they could reap bigger and more lasting benefits from the investment made in the high-tech refinery system. But Norman does not see the situation like that. Norman is

known to be extremely prudent when it comes to investment and Ripley thinks that this attitude is shaped and reinforced by the general tone of the olive-oil industry:

> This place is outdated. Building it from scratch is a better idea. I know that is expensive but I experienced the same issues when I was working in the tobacco industry. In tobacco, the buyer was putting huge pressure on you, this is not present in olive oil. They were imposing such regulations, such standards that you had to take on a couple of significant investments over 10 years. In olive oil, there is not much pressure, it's up to you. If only the buyer had demanded it ... This situation wouldn't have occurred. When you insist on using an old system, the machinery doesn't fit. Full planning and better investment are more advantageous in the long run.

Interpreting Norman's approach to invest and modify and change the production system, we can conclude that new technology will be adopted only when it becomes unavoidable. Even if the end result is a patchy business model, only the minimum condition for survival is met and the rest is put off until the next crisis hits the firm. If we use the automation example again, the new refinery system suggests that full automation is the rational action to be taken, but because full automation is not essential for survival at this stage, because they can continue to produce on this scale no matter what the difference is between the the actual and potential speed of production, no further action to change the production system is taken.

Because operational capabilities and changing them aim for survival of the firm and continuing operation in the industry, and because actions for change are not necessarily intended and well thought out, if I borrow Bateson's (1972) labels for categories of learning, it can be said that firms mostly investing in operational capabilities demonstrate "zero learning". In opposition to Vera et al.'s (2011) classification, where they identify operational/zero-order capabilities with single-loop learning (Argyris and Schon, 1978), I argue that learning at this level cannot be classed as single-loop because these organisations exhibit minimal change in their response to external and internal environmental changes which are a sensory input for the organisation. This finding is in line with what Fiol and Lyles (1985) argue: "change does not necessarily imply learning" (p.803). Although operational capabilities are not static and can change in line with unavoidable developments in the external or internal environment (such as new technological developments requiring new investment in machinery), organisational learning requires improvements to

practice and taking change actions through knowledge and better understanding of the situation (Fiol and Lyles, 1985). Because the learning type needed to build and maintain operational capabilities is defensive in nature, without understanding or thinking about the reasons beyond their immediate action, this unintended unrepeatable type of organisational learning can, at best, be labelled 'ad-hoc learning' or 'coercive learning', as it suggests a general unwillingness to learn within the organisation.

To summarise, organisations investing in operational capabilities are mainly interested in building operating skills that will ensure the execution of production routines. Incremental improvements to existing operational practices are accomplished through sporadic acts of change with no learning associated at the organisational level. Of course, effective operational capabilities are always a necessity, and the example of Crystal Oil evidences how superior operational capabilities can be a source of competitive advantage and that a single change episode may suffice to endow the organisation with a modified operational capability that will be adequate for an extended period.

Although Norman is undoubtedly in charge and in control of every single action that the organisation takes, as the quotes above show, Ripley seems to be the only critical employee who questions the status quo. In this sense, he seems to be the only catalyst for future innovation in the company. He is evidence of the potential adaptive capability that could be developed at Crystal Oil – which is the second level of capabilities that I will be discussing in the next section.

5.2.2. Adaptive Capabilities

Improvements in the basic functional activities and operational capabilities of the firm can be made in a less passive manner than at Crystal Oil. There, change is seen as something that should be avoided for as long as possible, but research data show that there are firms that do not see change as evil, but as something that the organisation should respond to. These firms will change, modify and renew their operational capabilities systematically, intentionally. But it is important to note that, while change

does not occur by *force majeure* from the environment and in this sense management is not adopting a sceptical or passive stance towards it, the behaviour of the firm remains reactive. Hence, change is accepted to some degree, but it is not internalised; it is visualised as something that occurs beyond the organisational boundaries, as something that the organisation has no control over.

Because change is seen as external to the organisation, the behaviour of the firm, in focusing on adaptive capabilities, is typified as adjusting its capabilities to match the level of environmental change only after the environment has changed. Table 5.2 summarises some examples from the participant organisations. Five out of the six firms have adaptive capabilities, but Suspension Automotive and Dolphin Hotel are found to be the two firms predominantly investing in the development of adaptive capabilities. For this reason, these will be the two cases that will be further elaborated to illustrate how adaptive capabilities are used and maintained within organisations.

Firm	Example
Gold Oil	Applied and qualified for a Kosher Certificate in order to be able to produce and sell private label products to interested buyers in the United States and Israel.
Suspension Auto	Adopted Q1 and 5S principles in the organisation in order to qualify as a potential supplier to big players in the automotive industry such as Ford and Mitsubishi.
Accelerator Auto	Hired a professional and experienced factory manager to solve a series of technical problems regarding production that were preventing the company from qualifying to undertake a major order from a German company for the last three years.
Dolphin Hotel	Signed a contract for cooperation with a physiotherapy branch centre in order to be approved as a Thermal Therapy Cure Centre by the Ministry of Health and thus be eligible to apply for EUROPESPA-med Quality Certification.
Seahorse Hotel	Raised hygiene standards (by for example introducing automatic touchless recycling bins) in the kitchen area in order to meet the requirements of the Norwegian Ministry of Health and start hosting and curing groups of patients from Norway.

Table 5.2. Adaptive Capabilities in Participant Organisations

Suspension Automotive's management decided to invest in new machines only after it became clear that their production capacity was inadequate to meet market demand. Only after customers started to place orders exceeding their capacity did they invest in capability development by buying injection press machines that would allow raising production levels. Similarly, out of the six participants, Suspension is the firm that has

the largest number (five) of quality-related certificates but, when probed further, the Quality Manager revealed that they chose to be certified because certain customers demanded that from them. For example, they applied for a Q1 quality system because that was the prerequisite for Ford to consider them as a supplier candidate; they got 5S certification because their two major customers, Mitsubishi and Temsa, started to work only with suppliers that adhere to 5S principles. As the Factory Manager, Ian states: "...Thus, customer demand is the primary factor for investing in change. It is the most fundamental factor, in any case. Apart from that, competitors' positions are a supporting element."

It can be inferred from this statement that Suspension would stand still if the competitors did not change their positions as they believe that otherwise customers would keep demanding the same product, on the same scale, in the same manner. But because change is inevitable, organisations with an adaptive approach find themselves in a situation where they need to align their internal resources with external demand continuously. In order to appreciate the difference between operating capabilities and adaptive capabilities better, considering a hypothetical example might be useful. If Crystal Oil was operating in the automotive component parts industry, it would have acted differently when faced with prospective customers' quality management demands. While Suspension adapted its operations and aligned its processes with Q1 principles in order to be considered by Ford Motor Company, Crystal would have tried its utmost to avoid working with Ford. Working with Ford is probably not essential for survival. It is an option to generate extra revenue without applying Q1 principles since no other automotive manufacturer other than Ford asks for a Q1 certificate. So Crystal Oil would not even want to work with Ford and would continue to work with its existing customers by keeping its operational capabilities unaltered, insofar as this continues to be a viable strategy for firm survival.

Firms investing in adaptive capabilities are good at scanning their external environment – which is constituted only by existing customers and direct competitors – for organisation-environment misfits. They are better at responding to change and benefiting from new conditions when compared to firms investing mainly in operational capabilities. While the latter are worried only about immediate survival,

firms belonging to the former category are worried mainly about alignment and maintaining their fittingness with the external environment.

Because change is less contingent and more prevalent when compared to firms belonging to the first category of capabilities, the organisations' behaviours towards change and learning are more routine and patterned at this level. As the focus is on alignment, these organisations intentionally check for organisation-environment misfits. While change decisions are intended, they cannot be said to be rational or well thought out. First of all, responses to the environment are made by correcting an error or by improving an operational practice of choice within a set of alternatives. This choice mainly depends on the urgency of the matter. Hence some problems and misfits that are more important or more complicated are brushed off. Thus it can be said that choices about which aspects of the organisation should be aligned with the environment are not carefully considered. Secondly, there is a phenomenon of habituation. Their strategy of adaptation and alignment determines the breadth of actions available to carry out change and innovation and sets a boundary. The likely organisational behaviour in the face of a misfit identified is to take corrective action resting on a repertoire of knowledge sources and networks built over the years as by-products of recurrent cycles of adaptation-misfit-adaptation. These alignment cycles bring about changes that are evolutionary in nature. They are targeted towards adding bits and pieces to the way in which the business is run in order to stay on track. Existing practices are adjusted incrementally to match demands one at a time, without disturbing the system much; this approach results in incremental improvement and low-level adjustments to the organisation, rather than any radical transformation. Fixing the system as they go along, by focusing on mere adaptation, minimises the risk of going through major disturbances and existence-threatening crises that might shake the ground the organisation stands on. Because change actions skilfully target gaps in optimal fittingness of the organisation with its environment, the type of learning at this level of capabilities is "lower-level" (Fiol and Lyles, 1985); it is focused on adjusting only certain parts of the organisations' functions and operations, mostly in a superficial fashion.

When viewed from this angle, these alignment cycles can be interpreted as cycles of single-loop learning. Problems, misfits and irregularities are identified and corrective

action is taken within the existing system, but the central features of the management approach and operations are maintained. If we examine Suspension Automotive's and Dolphin Hotel's application of ISO quality certification, we can see the superficiality of the learning efforts made in the adoption and implementation of ISO principles. As noted above, the central reason for the adoption of quality certificates, including ISO for Suspension Automotive, was to conserve the existing customer base and attract new customers.[2] Suspension is not interested in modifying its management principles by adhering closely to ISO principles and its philosophy of continuous learning and continuous improvement; it wanted to have ISO for opportunistic reasons. As a consequence, ISO was used solely for error correction, rather than for error prevention. In this way, they managed to preserve the operating strategies and norms of the organisation while adjusting their management and production systems to fall in line with the competitive conditions. Similarly, as will be further explicated in Section 6.3.1, ISO 9001 at Dolphin Hotel was implemented only superficially, and in most cases imperfectly, because they were interested in having ISO certification as a means to communicate their professionalism and institutionalism to customers and investors, rather than to internalise its principles and attain insightful learning outcomes. As Dolphin's General Manager openly states:

> …this business cannot be run with so much paperwork [as required by ISO principles]. If we meet all these [requirements] we cannot possibly serve the customers … When a box of tomatoes comes to the warehouse, if we need to fill out 10 different forms at all 10 points that these tomatoes go through, by the time the box arrives at the kitchen the tomatoes will be rotten and no food could be served to the customers.

Thus the organisation manages behavioural development without any associated cognitive development in the long-term implications of their actions.

To summarise, organisations valuing adaptive capabilities develop systematic patterns of organisational activity, which are aimed at the adaptation of behaviour, operating practices and knowledge. Although this characterisation may be associated with 'rote learning', the cyclical nature of organisational alignment suggests that the

[2] One of the requisites of ISO certification is that ISO-holding firms are obliged to use raw materials, intermediate goods and components supplied from ISO-holding suppliers. For this reason when an ISO quality management system diffuses throughout the automotive industry, Suspension Auto has to align its quality control process and apply for ISO in order to be able to sell its component parts to existing and prospective customers.

organisation gains the ability to offer different responses at different times in the face of a variety of internal or external situations. But the common ground is that all these responses aim mainly at the correction of errors and the alignment of the organisation with its environment. Firms investing mainly in adaptive capabilities are characterised by repeated short improvement cycles that are triggered by exogenous shocks.

5.2.3. Generative Capabilities

Capabilities at this level can be called higher-order capabilities, following Winter's (2003) classification. Generative capabilities refer to a firm's conduciveness to develop and adopt new ideas and its ability to create new markets through innovative behaviours and processes. They enable firms "to recognise the intrinsic value of other resources or to develop novel strategies before competitors" (Collis, 1994: 145). Firms investing predominantly in generative capabilities exhibit an active interest in applying new ideas, modifying organisational practices and renewing their organisational knowledge base. Thus, in contrast to the reactiveness of adaptive capabilities, generative capabilities are characterised by a proactive stance towards change and innovation. While change is triggered by external factors in firms investing in adaptive capabilities, firms operating at this level of capabilities are intrinsically motivated to change. In most cases, the rate of organisational change exceeds the rate of change in the environment. This suggests that firms investing in generative capabilities are generally first movers in the industry and that they actively enact the environment they are a part of.

Interestingly enough, the changes forced on firms operating at the level of adaptive capabilities tend to be changes initiated by firms with generative capabilities. In other words, firms with adaptive capabilities *respond* to the environment *enacted by* firms with generative capabilities. Only after firms with adaptive capabilities have aligned their organisations with the environment disturbed by firms with generative capabilities can firms investing in operational capabilities decide to adapt their operations and practices accordingly. If we take the Seahorse Hotel and Dolphin Hotel pair, it is seen that after Seahorse invested in becoming a scientifically operated thermal therapy cure centre, Dolphin partnered with a physiotherapy branch centre

and applied to be approved as a cure centre as well. Similarly, Seahorse's agreement with the Norwegian Ministry of Health was followed by an agreement between Dolphin and the Netherlands Ministry of Health; and, in the same way, after Seahorse got the EUROPESPA-med certification, Dolphin was inspired to apply for it also.

As discussed in the previous section, firms with adaptive capabilities assume change to be something that is injected from outside, and something to be addressed by aligning internal organisational resources with external environmental factors. This perception of change reifies the 'inside' and 'outside' separation between the organisation and its environment. In contrast, firms investing in generative capabilities act with a different ontology of the organisation. According to them, change is not an exceptional event produced in specific circumstances, commanded by external environment factors. Rather, for them innovative ideas and change emerge from everyday practice, almost in an ongoing fashion. Change is an emergent self-organising process in these firms because the focus of management is not on solving problems or correcting errors; they are actively inspired to play with and apply new ideas and new technologies. As such, their change practices go beyond the quasi-automatic stimulus-response behaviour. Organisational members – not only senior management – build an appreciation of deliberate learning and innovation projects, and the organisation overall achieves an increased level of understanding about why to change, how to change, and what does and does not work in the execution of certain organisational change tasks.

Let us recall, from Chapter 4, the quality management system in place at Seahorse Hotel. Dolphin Hotel adopted ISO 9001 and then could not truthfully apply it because ISO does not fit the realities of the tourism industry. Meanwhile Seahorse Hotel *created* its own quality control and management system by acquiring knowledge about extant quality management systems and then assimilating and integrating them in such a way that the emergent system would suit the pace of the tourism industry and satisfy the quality standards expected. The creation and implementation of the Crea Quality Management System (henceforth Crea-QM), developed by and applied at Seahorse, shows that quality management is not just a process at Seahorse, it is an organisation-wide vision based on empowering employees, "[tapping] into the tacit

'energy' of the firm" (Wang and Ahmed, 2007: 35), through collective discussion and constructive confrontations on how to build a customer-oriented culture.

The creation and implementation of Crea-QM at Seahorse is evidence of the management's willingness to question and redefine basic taken-for-granted norms and widely held industrial modes of operating. Many firms would choose to apply for an existing quality management certification, acquire relevant knowledge from institutional bodies, and adopt the required practices regarded as the 'industry standard'. Very few firms, if any, would engage in deeper problem-solving to take action regarding quality issues and consider creating their own system for managing quality. This proactive stance indicates the existence of double-loop learning in organisations with generative capabilities. Another interesting example evidencing the relation between double-loop learning and generative capabilities is the case of Gold Oil.

At Gold Oil, when the managing family decided to establish the second brand, Gold, whose brand proposition was a high-quality refined olive oil, they faced a natural barrier. By the very nature of the olives cultivated in Selçuk (southern Izmir), the quality of the olive oil produced in the area is of second quality when compared to the olive oil produced in the Ayvalık region (northern Izmir), since the olive oil from Selçuk olives has a significantly bitter and stronger taste when compared to oil produced from Ayvalık olives. But the management focused on solving the problem by questioning how the quality of the oil could be improved. First, traditionally, farmers thought that olives should be harvested in December and thus harvested accordingly. Gold Oil managers discovered that this belief was not well-grounded and was in fact erroneous. Their research showed that olives start to mature in October but farmers wait until December because they think that the fat level in the olives will increase as the water level in the olives decreases after maturity. The General Manager's research revealed that it was a false conviction that the level of fat will increase as time goes by. He found out that the fat composition of olives stabilised in September and that what makes the taste of olive oil bitter is delaying the harvest until the olives runs out water, as this increases the acidity level. Given this discovery, members of top management went to the fields to create awareness amongst farmers and convince them to harvest their olives in mid-October. Harvesting the olives earlier

made the processing more efficient as they were able to use less water when preparing the olive paste before squeezing it, and the acidity levels dropped from 0.8g to around 0.5g per 100g. But this change did not completely eradicate the bitterness. During the production process the machines detach the stone from the olive and then the olive is smashed. The resulting paste moves into a tube surrounded by another tube filled with hot water. The paste is cooked with the heat coming from the outer tube but water is never in contact with the paste. Traditionally, the temperature of that water is around 30 ºC. This was increasing the output efficiency but causing the taste to be bitter. With the encouragement of the management, employees experimented with what would happen if the temperature of the water was decreased; through a series of trials and errors, they discovered that 27ºC was enough to cook the olive paste without the taste being bitter. But finding out that the paste would cook with water at 27ºC was not a straightforward process. By default, the machines were set to work with water at 30ºC and thus the related timer settings were programmed accordingly. In order to know whether the olive paste was cooked or not they needed to measure the temperature of the paste, whereas the machine was measuring only the temperature of the water. While the management was studying the operating manual of the machine to find out a way to measure the temperature of the paste, one of the front-line employees suggested adding a second thermometer to the machine at the point where it touches the paste. This was a risky suggestion because it could have damaged the machine, but the management decided to take the suggestion on board and it worked. Through a series of discoveries, altering the principles of olive-oil production, the firm managed to match the quality of Ayvalık olive oil. These cases can be interpreted as examples of how organisations with generative capabilities engage in knowledge creation through double loop learning that challenges basic industry standards and practices.

While potentially requiring significant effort and commitment on the part of members of the organisation, learning efforts to achieve such fundamental changes are likely to produce improved understanding of the performance implications of the actions taken to operate the business on a daily basis, and the potential effects on the environment surrounding the organisation.

5.3. Insights into the Capability Triad

Until now, I have treated the three types of capabilities individually. However, if we adopt a holistic approach, new attributes of the model presented above are revealed. In this section, these dimensions will be discussed and evidenced.

1. *Cumulativeness and Consequentiality.* The organisational capabilities described and discussed above are hierarchically ordered, operational capabilities being lower-level and generative capabilities being higher-level. This hierarchical model of capabilities suggests that capabilities are cumulative; this means that a firm can only aim to develop higher-level capabilities on the premise that it has already built lower-level capabilities in an initial period. The order of implementing organisational capabilities is consequential; a property termed "sequenced steps" by Brown and Eisenhardt (1997). As such, operational capabilities are foundational to others and so must be learned first. Thus, a firm first needs to excel in one or more basic functional activities that are critical for its survival in the industry, before aspiring continuously to align those activities with industrial changes. If a firm cannot carry out basic operational and functional activities better than its competitors, then it cannot modify those activities to align itself with the environment because it lacks the basic understanding necessary to appreciate the need to change, and lacks the necessary skills, knowledge and technology to implement the changes needed. A firm first needs to understand and appreciate the critical success factors in the industry (i.e. build and sustain operational capabilities), and how to modify those capabilities to align with environmental changes (i.e. build and sustain adaptive capabilities), before being able to form a higher understanding of why it should change (i.e. build generative capabilities) in a continuous and intrinsic fashion (i.e. sustain generative capabilities). If we take the example of Seahorse Hotel, the organisation first needs to learn how to survive and succeed in the thermal tourism industry by managing good guest and patient relations, running good-quality eating facilities, and succeeding in offering effective therapeutic methods (i.e. operational capabilities). Only after mastering one or more of these aspects can they aim to attain continuous alignment with industrial trends and endeavour to modify their therapeutic methods to be in line with developments in the global and local

thermal therapy tourism arena (i.e. adaptive capabilities). And only after following the trends for a certain period of time can they understand and appreciate better the nature and inner dynamics of changes in the thermal tourism industry, and initiate changes on their own and shape the local or even global thermal tourism arena (i.e. generative capabilities).

2. *Heterogeneity.* Firms can be seen as a collection of functional activities, and thus a collection of capabilities. Regardless of the scope of their business, all firms have to carry out a variety of functions, ranging from production to personnel management. Needless to say, even the most innovative firm will probably not possess generative capabilities in all of these functions. For that reason, it is possible to observe a certain degree of heterogeneity in capabilities within the organisation. Although there is a dominant capability level which the organisation mainly invests in, it possesses a diversity of capabilities at other levels, alongside that dominant capability level. Hence, while Suspension Automotive has adaptive capabilities regarding production-related functions, it possesses operational capabilities for its sales and marketing activities but does not have any competitive organisational capabilities for the human resources management function. Similarly, Seahorse Hotel maintains generative capabilities in its cure centre, human resource management and quality management functions, while it exhibits mainly adaptive behaviour in terms of food safety and hygiene in the kitchen department. Furthermore, it is not particularly successful or innovative in its guest relations function and presumably uses basic operational capabilities to perform these activities. It is interesting to note that diversity can be observed not only within the organisation, but even within a department. If we again look at the example of Seahorse, it is seen that the kitchen department invests in generative capabilities in its cooking activities by proactively pursuing and introducing healthy cooking and healthy eating practices. But it emphasises corrective action when aligning the food safety and hygiene standards followed to perform its kitchen activities according to the requirements and stipulations of the Norwegian Ministry of Heath, and thus has adaptive capabilities in these aspects of its kitchen practice. This heterogeneity in terms of capability levels and internal dynamism observed within the organisation is related to the strategic posture of the organisation and the areas prioritised by management.

3. *Envelopment.* In general, contingency theory arguments about the origins of competitive advantage view superior organisational performance as a result of the proper alignment of endogenous organisational variables with exogenous environmental variables (Burns and Stalker, 1961). Evaluating and controlling the alignment of organisational strategy, structure and environment is associated with good management. Adapting organisational capabilities, resources and the internal situation to shifting industry and competitive conditions, newly emerging customer preferences and other significant external events and requirements is seen as necessary managerial action to craft a winning strategy to build competitive advantage and boost firm performance (Thompson and Strickland, 2003).

> A good strategy has to be well matched to industry and competitive conditions, market opportunities and threats, and other aspects of the enterprise's external environment … Unless a strategy exhibits a tight fit with a company's external situation and internal circumstances, it is suspect and likely to produce less than the best business result. (Thompson and Strickland, 2003: 69)

However, the range of organisational capabilities presented and discussed above suggests that within a particular industry there is a range of possible strategic postures that would lead to success. Capabilities by definition vary with the level of market dynamism and enable an organisation to adapt to changes in the environment (Cockburn et al., 2000; Eisenhardt and Martin, 2000; Winter, 2003). The case of Crystal Oil shows us that there is a degree of tolerance within a particular industry when fittingness and alignment are in question. When juxtaposed with Gold Oil, which operates in the same industry, Crystal evidences that it is possible to have varying levels of firm dynamism within the same external environment and still be able to build and sustain market performance. A company's strategy needs to be neither intentional nor reactive in order to lead to sustainable competitive advantage, as these two rival cases imply. Hence, when talking about performance calibres leading to competitive strength and long-term market position, the idea of alignment is insufficient to explain the success of Crystal's passive posture and Gold's proactive posture – the postures of two of the leading players in the Turkish olive-oil industry. From this perspective, it might be more accurate to talk about the idea of envelopment rather than the idea of

alignment. It is possible to have multiple strategic postures that are all acceptable within a particular industry. Firms can follow multiple courses within that envelope by reactively exploiting and evaluating their abilities to explore new opportunities proactively by creating new knowledge without necessarily aiming for or achieving a strategic fit between the organisation and its environment.

4. *Management Deliberation.* The dynamism introduced by the idea of envelopment hints that managers can exploit their well-honed intuition and ability to evaluate the merits of alternative postures and coordinate efforts to the greatest extent possible – constrained by internal resources and the capabilities level at which the firm currently operates at – to give direction to initiatives to develop capabilities and create knowledge in a chosen posture. The posture that they choose to adopt within that envelope is partly determined by the importance of change as evaluated by the management. It is important to recall that, as discussed in Chapter 4, this fundamental attitude towards change and innovation is heavily coloured by management's assumptions about the environment and the span of environmental bracketing. Accordingly, it might very well be argued that Crystal Oil sees itself as exhibiting adaptive behaviour, rather than survival, and aligning itself with its environment since it defines its environment in a much more narrow sense than Gold Oil does. Because Gold attends to the developments in a much wider environment and consequently brackets more changes and shifting conditions in its competitive industry, it spots far more numerous organisation-environment misfits than does Crystal.

5. *Individual Quality and Evolution.* Although there is a certain degree of variation in the level of organisational dynamism in their choices of response to the environment, the importance attached to management deliberation should not be taken to extremes. In studies of population ecology among individuals, differences in the traits associated with survival are often attributed to variations in "individual quality". Individual quality is defined as "an axis of among-individual heterogeneity that is positively correlated with fitness" (Wilson and Hussey, 2010: 207). This definition suggests two things: first, quality varies among members of a given population; and second, high quality members have greater fittingness than low quality members of the same population. When the concept of individual

quality is transferred to the realm of management, this suggests that although a certain degree of variance in capability dynamism or any other trait necessary for firm survival is allowed, because individual qualities are also associated with survival and fittingness, then there is some sort of lower limit that organisations cannot go below if they want to survive the process of natural selection. Thus, the envelope available to management and the variance of dynamism allowed within a particular industry are partly determined by the environment which the organisations inhabit. As such, scholars have argued that managers facing turbulent environments tend to be more proactive than managers in less turbulent environments (Miles and Snow, 1978; Milliken, 1987), because they attempt to anticipate events and implement preventive actions rather than merely respond to events that have already occurred. As such, the organisational rate of change can vary, but the envelope available to management and the variance of dynamism within a particular industry correlate with the environmental rate of change. This suggests that Crystal Oil and Gold Oil vary in their dynamism and attitude towards change and innovation to such an extent because the nature of the olive-oil industry allows that variance. In other words, Crystal Oil is able to sustain its competitive advantage within the industry primarily by investing in operational capabilities, since the olive-oil industry can be classified as a slowly-evolving industry. The envelope for the tourism industry, which is a high-velocity industry, is not as large as that for the olive-oil industry, and so investing in operational capabilities in an environment with high rates of change will probably not lead to success and competitiveness over prolonged periods. Because the other industries studied – namely, the automotive component parts industry and the thermal tourism industry – have higher rates of change, no other cases other than Crystal Oil were investing in operational capabilities. Because there is a limit to lethargy, as stipulated by the rates of change in respective industries, you may not be able to survive by being as passive as Crystal Oil within certain industries, meaning that the degree of envelopment is different for different industries, and this explains the differing degrees of variance of individual qualities within organisations. And it can be argued that there might be a limit to dynamism or a limit to the knowledge that an organisation can acquire to build generative capabilities. This dimension of individual quality will be discussed in the next chapter where we scrutinise the different courses adopted by organisations to develop organisational capabilities.

5.4. Altering Capabilities

Teece and Pisano (1994) and Teece et al. (1997) characterise dynamic capabilities as path-dependent processes. Path dependence suggests that decisions about future capabilities will be close to firm's previous decisions, activities and behaviours. Thus, capabilities emerge from the unique cognitive structures formed as a result of the learning repertoire of individual firms. Although I totally agree that learning and capability development are highly dependent on distinctive histories of firm – just as any firm activity is – the strategic paths and alternative behaviours available to the firm and the attractiveness of each of them are highly related to what the firm attends to and brackets and how it perceives and interprets that bracketed information. As such, I argue that organisational capabilities can be designed and managed and thus can be altered at any given time if they are supported by proper organisational resources and processes. Accordingly, while path dependency is an important determinant of firms' position in the capability triad and the paths available for future capability development, organisations are not 'locked in' at a particular capability level; if the structural and social context of the firm is altered by managing firm's learning environment it is possible to move upwards (or downwards) in the capability triad.

An example of an alteration in organisational capabilities is the case of Accelerator Automotive which, at the time the interviews took place, was moving from adaptive capabilities to generative capabilities. Accelerator, as Chairman Mike put it, has had "a growth mindset" since its establishment. Although it was a small local workshop-like firm located in a small town in Turkey, Karabük,[3] the management seem not to have hesitated to move the firm to the biggest and most vibrant city of Turkey, Istanbul, just 10 years after its establishment in order to grow the business in the domestic market. The reason behind this decision was the desire to work with newly-formed joint ventures and with global automotive manufacturers such as Chrysler, MAN and Mercedes. After the Turkish economy started to deteriorate in the 1980s and the domestic market stagnated, the firm decided to begin its export activities in 1986; this gave them a strong impulsive force, doubling the firm's revenues within a

[3] Karabük is one of the newest provinces of Turkey, located close to the Black Sea. Until a decade ago it was a district of Zonguldak, then in 1995 it became a city (provincial centre).

year. As the exporting activities continued to grow exponentially, the firm's production capacity became insufficient, so the management decided to invest in new technologies and the factory was modernised from top to bottom in 1994. In 2000, when management saw that it was not possible to grow any further on the existing factory site, they built a new factory in the TAYSAD Industrial Zone, a move almost quadrupling the firm's production capacity. When the pattern of the firm's behaviour is analysed, it is seen that although the actions taken in the face of changing environmental circumstances were much bolder than those of Suspension Automotive or Dolphin Hotel, they still followed an adaptive behaviour pattern: first the circumstances change, then the firm realigns itself. They moved to Istanbul after major potential customers entered the Turkish market; they opened up to foreign markets after the domestic market started to stagnate; they modernised the production facility after the current production capacity failed to meet external demand. Recently, a new foundry manager was hired, as noted in Table 5.2, to solve a series of technical problems regarding production that was preventing the firm from qualifying to undertake a major order from a German automotive manufacturer. The organisation is very good at scanning and responding to the external environment, but there is no evidence that the organisation recognises the endogenous value of change and innovation. Since improvements in existing resources and capabilities are dictated by external factors, Accelerator's organisational capabilities are categorised as adaptive capabilities. Yet, there is empirical evidence that this classification is about to change.

With Mike acceding to the management of the Board after the death of his father, the firm has started to invest in human capital. It is aiming to expand the knowledge base of the organisation by enriching the individual capabilities of its employees at all levels and by incorporating new knowledge sources to the organisation. To do this, it is hiring new organisational members with specialised knowledge and connecting the firm to various external knowledge sources such as foreign firms, certifying institutions and the Association of Automotive Parts and Components Manufacturers. This learning strategy is close to those followed by Gold Oil and Seahorse Hotel, suggesting that Accelerator Automotive is moving towards generative capabilities and double-loop learning. The increasing dominance of generative capabilities across all the organisational capabilities of Accelerator is evidenced by the increased organisational inclination towards research and development and by training activities

steered by the newly-hired foundry manager and human resources manager. With Allan taking up his foundry manager duty in February 2008, Accelerator applied for a number of R&D incentive grants to various governmental and non-governmental institutions with the inspiration to found a specialised R&D department in the future. Allan summarises the tendency of Accelerator as follows:

> The government and other institutions such as the Technology Development Foundation of Turkey (TTGV) provide R&D incentives and grants for the research and development that you conduct. In my previous job, I was the manager of one of those projects; I conducted research in a new area and brought new technology to Turkey at that time. But there is no such inclination here at Accelerator, investing in R&D has never been thought as an option. They did many R&D projects, but not with the right mentality. They encountered a problem, there was an immediate need to develop a solution so they started a R&D project ... They adapt urged by necessity … But R&D is not about problem-solving, it is about exploring and searching for development opportunities. We are at the stage of convincing the Board about the potential contributions of embracing R&D mentality and hiring R&D engineers for exploration.

As Allan notes, research and development are not about adaptation, they require explorative behaviour and this is the direction in which Accelerator is moving.

> We have solved the technical problems but production is not 100% flawless. We can increase our efficiency by 20-25% ... I am working on 10 different improvement projects. I need to carry out and follow up on those projects … These are all improvement areas that I have determined. They have the data but they do not have the technical knowledge and infrastructure to analyse those data. This requires in-depth advanced technical knowledge … Without this knowledge you cannot ask questions. I have a Masters degree in this area, I have experience. So I can come up with improvement suggestions … In order to think and do something about those thoughts you should have the right knowledge base … we are newly establishing that infrastructure, I am training the engineers.

As the quotes above suggest, organisations can adopt a proactive stance towards organisational development by changing their attitudes towards learning and change and by implementing a different learning strategy. In the particular case of Accelerator Automotive, the activation trigger for adopting a different learning and opportunity search strategy was the hiring of an experienced foundry manager who, with the help of a newly-recruited human resources manager, started a wave of organisational knowledge generation by introducing and implementing a rich and systematic training

programme[4] intended to broaden the knowledge base of the organisation. In this organisation, these two people acted as change agents, altering the organisational capabilities to achieve a higher degree of technology development and product/process innovation. Whether altering organisational capabilities always requires a change agent is a question requiring further research, but the experiences at Seahorse Hotel and Gold Oil support this malleable link. In both cases, waves of organisational changes making the firms more proactive and generative in terms of knowledge acquisition, ideas generation and the adoption of innovative ideas and applications were started by a new manager assuming office. In the case of Seahorse, a new general manager was hired, while in the case of Gold the children and nephew of the owner-manager started their professional lives in their father/uncle's firm by being taken on as marketing manager (daughter), general manager (son) and factory manager (nephew). In the cases of Accelerator and Seahorse, new managers were hired for adaptive purposes as a way to solve immediate organisational problems and internal crises, but this move injected a new set of values to the organisation, enabling employees to find new and better perspectives for the production system of the organisation. While the antecedents of organisational change are the subject of another research study, the finding that organisational capabilities can be altered is an interesting insight. The organisational processes and mechanisms that facilitate and enable facilitate such alterations will be discussed in the following section and the next chapter.

5.5. Developing Capabilities

As discussed by Simon (1991:125), organisations learn in two ways: "(a) by the learning of its members; or (b) by ingesting new members who have knowledge the organisation didn't previously have". This suggests that organisations can either build organisational capabilities internally or can simply buy them by, for example, hiring new personnel. Although organisations can choose any either or both of the two options –the former is suggested as being more effective by Cohen and Levinthal (1990) – the research data from the participant organisations suggest that there is a relation between the capability to be developed and the capability development

[4] More information on Accelerator's training programme and overall learning strategy can be found in Section 6.3.1.

approach, regardless of the industry or the firm in question. In this section I will examine certain patterns of development for each capability level. But before embarking on that, I want to introduce the concept of *capability circles*.

Capability circles are *groups of organisational members who interact regularly to learn and exchange the necessary knowledge and information required to build a certain organisational capability*. This definition highlights two crucial characteristics of capability circles. First, a capability circle has a shared domain of interest to build or improve a certain organisational capability. Second, members of the capability circle engage regularly in joint activities such as training events, meetings in formal and informal social venues to learn together, exchange knowledge, share information, and discuss certain aspects of the capability that is being built. Third, members of the capability circle have a shared competence and this is one of the aspects distinguishing them from other organisational members. Although members of the capability circle do not necessarily work together, because of their shared competence, in practice, they tend to belong to the same department of the organisation. But capability circles are different from departments or other similar functional units in a firm in that they are defined by knowledge rather than by task; and in this sense they create opportunities for collective learning. Organisational members develop knowledge in capability circles that enables them to produce new practices to be performed in their daily organisational work. In this sense, capability circles have a central role in stewarding organisational capabilities to sustain the firm's competitive advantage.

There can be – and most probably will be – several capability circles within an organisation, as the management may be simultaneously building several capabilities in different departments since the activities that a firm has to perform are varied. For instance, in the case of Suspension Automotive they were interested in both acquiring new technologies and improving quality management. When there are multiple and diverse capability circles within an organisation, one capability circle may be bigger than another in terms of the material capital and human capital devoted to it, suggesting that it has more strategic importance for the firm.

Capability circles differ from communities of practice (Wenger and Synder, 2000) and project teams and work groups in several ways (for a summary of the differences see Table 5.3.) Actually, they are complementary to both organisational forms and can be interpreted as an intersection or an intermediary form of the two. In contrast to project teams and work groups, capability circles are not established to accomplish a certain task or to deliver a certain project. Their aim is to build, improve and maintain a certain organisational capability and thus they are less of an object and more of a process directed towards collective learning, implying that they are more enduring than project teams or work groups. They do not work on a specific task and their output – knowledge – is intangible when compared to project teams and work groups, as is the case with communities of practice. But unlike communities of practice they are not informal. Communities of practice are an organisational expression of the individual's need to interact naturally with others who share a common understanding of practice (Plaskoff, 2003). In sharp contrast to the self-organising and voluntary nature of communities of practice (Smith and McKeen, 2002), members of capability circles are not 'free' agents and they may or may not be committed to participate in capability circles as part of organisational life. While communities of practice are often non-canonical and not recognised by the organisation, capability circles are organised or at least sanctioned by that organisation, and in this sense they are less fluid and emergent when compared to communities of practice. In contrast to project teams and work groups, capability circles are not necessarily ordained by management and might be configured by organisational members themselves without any impetus from above; but after their emergence, they may be sanctioned and approved by the management and become bounded entities. Because of this property, although the capability circles observed in participant organisations were all directed towards learning, they did not necessarily constitute passionate and committed members, as is the case with communities of practice which are characterised by their knowledge-sharing orientation and value propositions grounded in knowledge exchange (Smith and McKeen, 2002).

Reflecting their self-organising and regulating nature, communities of practice tend to fail when mandated or forced (Wenger and Snyder, 2000). However, we observe quite the opposite in the case of capability circles. In all cases – with the exception of a number of capability circle cases at Seahorse Hotel – members are selected by

managers based on their expertise and their job assignment relevance to the capability being built. Thus, if they need to learn certain technical and professional skills in order for an organisational capability to be developed, they are assigned to a capability circle by senior management or functional managers. In this respect, unlike communities of practice, the membership is not necessarily self-selective. In addition to that, capability circles are not self-organising organisational entities, in contrast to communities of practice. In all cases observed in the participant organisations, the centre of a capability circle was occupied by (an) individual(s) having either hierarchical or expertise power who direct(s) and guide(s) the learning process. Finally, communities of practice and capability circles differ in terms of the nature of the knowledge that organisational members acquire. The type of knowledge delivered by communities of practice is known as "tacit" and "situated", while the capability of circles is also functional in delivering "explicit" knowledge that can be applied across contexts and situations. The strength of the notion of a capability circle, in relation to a community of practice, is that it also applies organisational groupings in industrial settings with highly-structured workflows – something that is not accounted for by the conceptualisation of a community of practice.

Organisational Form	What is the purpose?	What holds it together?	Who belongs to it?	What is the output?
Work Groups and Project Teams	To accomplish a specific task or deliver a specific project	Job requirements and project goals	Employees reporting to the group's manager and employees assigned by management	A product or service
Capability Circles	To learn and exchange the knowledge required to build a specific individual and organisational capability	The need or inspiration to build a specific organisational capability	Employees selected by managers who have relevant expertise or who are required to build that particular individual capability	A knowledge functionality
Communities of Practice	To develop members' capabilities and exchange knowledge	Passion, commitment and identification with the group's expertise	Members who believe they have something to contribute	A knowledge functionality

Table 5.3. Summary of Comparison between Organisational Forms

Adapted from: Wenger, E. C. and Snyder, W. M. (2000) "Communities of Practice: the organisational frontier", *Harvard Business Review,* Vol. 78(1), pp.139-145.

Although the discussion above provides a universal view of capability circles, since organisations need or are inspired to develop diverse capabilities and follow diverse ways to develop those capabilities, capability circles are also diverse and can have unique characteristics based on the reasons for which they are formed. In the following three sections, I will examine how organisations develop capabilities and what forms capability circles take for each capability level.

5.5.1. Developing Operational Capabilities

In some cases, a development in the organisation's internal or external environment may not only call for new machinery and technology investment but might necessitate change in the organisational knowledge repertoire or the extension of organisational competences. Based on the Crystal Oil case, it is seen that when faced with such a situation the organisation prefers to buy capability via hiring a new person, rather than building it internally through the training of existing personnel. Interestingly enough, even when the organisation decides to buy a new capability (again for operational purposes only) this is not done in an "intendedly rational" (Winter, 2003) fashion, as was the case with Crystal's brand new refinery system investment, which was discussed in Section 5.2.1. While a buying-in decision has a purpose, the actual action of buying in a capability is not purposeful at all. The decision to hire a new production manager in order rebuild the production capability at Crystal Oil is a particularly illustrative example supporting this argument.

The ex-production manager of Crystal Oil, Adam, who is the nephew of Norman, left the company three years ago. Because Adam was the only person with adequate technical engineering knowledge, upon his resignation, it was apparent that a new production manager was needed. Consequently, Norman decided to hire a new production manager, who would also act as the factory manager, in order to rebuild Crystal's engineering related knowledge base again. But rather than hiring someone with related knowledge and prior experience, he single-handedly hired a former sales manager, Ripley. Ripley has an engineering major and worked for a couple of years in the United Kingdom in the automotive industry before coming back to Turkey and starting to work in his father's tobacco factory as the sales director. At this point, it is

important to note that Ripley's father was the best friend of Norman and that Ripley was made unemployed after the bankruptcy of the factory following his father's death. I believe that the way that the hiring decision was made and how it was carried out is a good example showing the management's attitude towards capability development in organisations focusing mainly on operational survival. Ripley was an engineering graduate and had some sort of work experience in the agricultural products industry (i.e. tobacco), hence he met the minimum requirements to run an olive-oil factory – according to Norman. He could have hired someone with better and more suitable qualifications, but Ripley met the immediate need of Norman and hiring an acquaintance was also thought a safer bet from Norman's prudent point of view.

The definition of capability circles, as presented in Section 5.5 suggests that a capability circle can be formed only if there is a group of organisational members interacting regularly, either formally or informally, to share and exchange knowledge for collective learning purposes. However, as was discussed in Section 5.2.1, developing operational capabilities is associated with zero learning as a learning effort. Moreover, as illustrated before, capability buying activities occur in an ad-hoc fashion as a response to existence-threatening organisational crises (e.g. the resignation of Adam from Crystal Oil) or exogenous shocks. Because there is no learning at group or organisational level, it is not possible to talk about capability circles in organisations interested in developing operational capabilities. Learning occurs mainly on an individual level, with Norman following new technologies and judging the investments to be made single-handedly. Only after a new machine has been bought to sustain the production-related operational capability of the organisation is information and knowledge on how to operate the machine communicated to front-line employees through on-the-job training. If we take a concrete example, in line with the competitive pressures at the time this research was conducted, Crystal Oil was affected by a fall in customers' purchasing power. In order to reduce the prices of their products, Crystal was forced to change their packaging and move from glass to plastic bottles. When this change was made, the management bought a shrinking machine and automatic barcode printer module. After these machines were incorporated into the production system, learning how to use them became one of the job requirements of the employees working in the bottling division. The equipment vendor was invited to give an introductory course to production staff.

But the front-line employees at first failed to get the hang of the accurate and thus sensitive controls of the shrinking machine and refused to use it. The production manager and the line supervisors had to work alongside the employees on a one-to-one basis until they became accustomed to using the new technology comfortably. In this example, it is not possible to talk about organisational learning, as we see individual employees learning to use the machine and building their individual competences and capabilities in order to qualify for the new job description that emerged after this particular technological investment. Because employees only learn knowledge which is directly relevant to their job requirements on an individual basis, when the classification presented in Table 5.3 is considered, the organisational form used in building operational capabilities associates better with work groups than with capability circles.

Research data suggest that firms investing in operational capabilities will tend to buy the capability in rather than building it internally. Additionally, because capability development happens in an ad-hoc sporadic fashion triggered by internal and external events in these firms, it is not possible to talk about enduring capability circles dedicated to learning and discussing new knowledge collectively and deliberately. This finding is in line with the suggestion put forward in Section 5.2.1, advocating that the type of learning in these firms can be classified as "zero-learning". If the organisation is not committed to learning then it is not expected to to observe capability circles dedicated to the learning and exchanging of knowledge for capability development purposes.

5.5.2. Developing Adaptive Capabilities

As previously discussed in Section 5.2.2, firms which invest mainly in adaptive capabilities are characterised by their focused approach towards aligning the organisation with the external environment and towards taking corrective action to remedy emerging organisation-environment misfits. This focused error-correction approach of these firms results in a very targeted approach to capability development as well, with almost a sharpshooter's precision. Unsurprisingly, in these firms, new capabilities are only acquired as and when it is necessary to align the organisation

with the environment. Dolphin Hotel, for example, decided to partner with a physiotherapy clinic only after they decided to apply for membership of the Turkish Association of Thermal, Talasso and Cure Centres and to become a candidate for EUROPESPA-med quality certification. At the time these interviews took place, the Medical Superintendent of Dolphin Hotel mentioned that they were expecting a change in legislation that would stipulate that every thermal cure centre should have at least one physiotherapy specialist (MD) and at least three physiotherapists working full-time on-site. Until such a scheme takes effect, or something else happens in the environment that necessitates a response, the Medical Superintendent has stated: "we have not and will not bring up the issue of developing our own physiotherapy cadre".

As change efforts are directed towards solving one particular problem, so too are capability-building efforts. When Dolphin Hotel wanted to apply for membership of the Association, they looked at the eligibility criteria and saw that they needed to have at least a formal contract with a physiotherapy branch centre; therefore they found a partner. When they became a member, they saw that prestigious competitors such as Seahorse had EUROPESPA-med certification, and therefore they too decided to apply for it. Their cure portfolio was enriched as a result of this decision because, in order to qualify for EUROPESPA-med, they needed more than simply a pool with thermal water in it. Treatment regimes, such as aquatic physiotherapy, balneotherapy and thalassic therapy, were added to the firm's capabilities as a result of this desire to become EUROPESPA-med certified. Although they felt the need to align the organisation with the growing trend in thermal tourism and, more generally, alternative tourism, this move was, to some extent, weakening their operational capability in relation to the branding function. Following this recognised threat, more wellness-centred therapies, such as aromatherapy, reflexology and a variety of massage options, were added to the service portfolio in order to expand the niche of the cure centre with the aim of attracting large numbers of holidaymakers to stay at Dolphin Hotel. Via this strategic move they wanted to ensure that the cure centre initiative did not interfere with the 35-year-old history of Dolphin Hotel and its established reputation and would not work against the premium holiday village concept.

When a firm decides to invest in a certain capability, it generally opts for capability buying rather than capability building, as was the case with the firms belonging to the group discussed in the previous section. Because learning is focused, they know exactly (or think they know exactly) what kind of person they need. They hire a 'specialist' who has the required knowledge in order to build a particular organisational capability and thus solve a particular problem or set of interrelated problems. These specialists act as change agents within the organisation; they bring with them their experience of new techniques and ways of working (new as in new to the organisation), act as sole solution providers, educate their team, and plan further actions to influence the learning situation based on reformed understanding. These newly-recruited specialists are crucial to the organisation's ability to acquire and exploit the required new knowledge and improve and build a particular capability.

This ability is actualised by forming mutually exclusive capability circles (visualised in Figure 5.1)[5] within the organisation, so that every specialist becomes a knowledge acquirer, learning planner and solution provider in their circle. The specialist, who occupies the centre of the circle, is surrounded by a number of employees, who are subordinates; these build on their individual capabilities by following the specialists – they attend the courses that the specialist registers them on, they practise new ways of production under the guidance of the specialist, and so on. This is a typical situation in which "push learning" (Santos and Powell, 2001) occurs. As a result of the central role played by the specialist in the capability development efforts of the organisation, when a specialist is incapable of acquiring the particular knowledge needed for a given capability, she is replaced by a new department manager or, in the case of Dolphin Hotel, by a new general manager. This was true in all the cases that I observed. Considering the central role that specialists play in learning and capability development and management efforts of the organisation, it is worth mentioning that these organisations' capability investments are geared towards *experience accumulation*. This is because learning and capability development processes revolve around the previous industry experience of the specialist and her interpretation of the ongoing experience of an organisation with the new capability that is in the process of

[5] In Figure 5.1 every circle represents an independent capability that the organisation wants to improve. These capabilities can be operation-related, human capital-related or in any other functional area, depending on the focus of the organisation. The centre of the capability circle is occupied by someone who has hierarchical or expertise power and who will guide the capability building efforts of the circle.

being developed. The operation and intention to bring about the desired changes in operation take place in such a routinised and highly patterned way that the quasi-automatic approach of top management and specialists to steer capability development activities reflects experiential wisdom rather than the accumulation or articulation of knowledge.

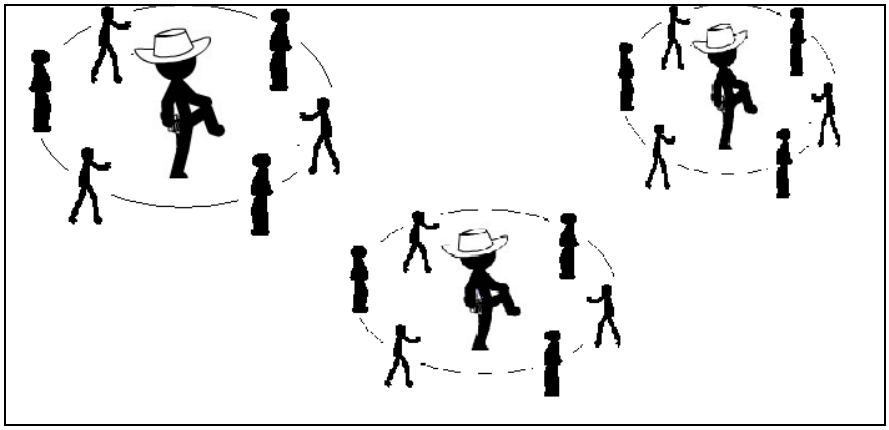

Figure 5.1. Representation of Capability Circles within an Organisation with Adaptive Capabilities

In the case of the research participants observed for this particular research, capability circles represent departments within the organisation. The reason for this is that, by definition, the members of a particular capability circle can be distinguished from other organisational members based on a shared distinctive competence. The organisations included in this research were all medium-sized firms with relatively limited human and material capital to be invested in organisational capabilities. Therefore, all members who share a unique competence and who collaborate to develop a particular organisational capability tend to belong to the same department. These resource constraints are also the main reason why the firm can only develop a limited number of capabilities at any given time. Partly because capability circles share a distinctive competence, and partly because the capability circles observed in this study were also separated by departmental boundaries, capability circles formed to develop adaptive capabilities which were found to be mutually exclusive. The members of each circle, generally employees working in the same department as the specialists, are mostly members of one particular capability circle and mainly learn the skills that are needed to develop that particular organisational capability. The circles communicate with each other at the specialist (i.e. middle manager/functional

manager) level but the communication is limited to operational aspects only with very limited – if any – discussion about learning planning.

The specialists are hired because they have the necessary relevant experience and tacit knowledge for the required capability and knowledge functionality. In the case of Suspension Automotive, the current Quality Manager was hired in 2006 when the management first became interested in working with big customers such as Mitsubishi and Ford. She had previous experience of applying Six Sigma methods in the automotive industry and other advanced quality management systems; thus she was a good match for Suspension's deficiency in systematic quality assurance. A couple of years later, it become obvious that ensuring good product quality was not only about quality control in the production division; it required more extensive adoption and integration of manufacturing-related information technologies (e.g. warehousing and shipping systems) to yield the benefits of forward tracking introduced with quality management systems for all production stages in the value chain. This was the main reason behind the decision to hire the current factory manager, who started work there in late 2007. The Factory Manager seemed the right choice for the company because he had substantive work experience at Daimler-Chrysler, an automotive manufacturer known for its high quality expectations. Daimler-Chrysler, before getting out of the business in Turkey, was one of the first and biggest customers of Suspension; therefore, the Factory Manager's operational success at Daimler-Chrysler was also known personally to Suspension's top management. After a few adaptive cycles like this, the organisation becomes a cluster of tacit accumulation of experiences. It benefits from combining the so-called specialists' previous industry experience and the newly formed, or reformed, understanding of particular business operations, by the employees, which results from these specialists' ongoing steering.

Research data suggest that firms investing in adaptive capabilities will also prefer capability buying rather than capability building. These firms are distinguished from the ones discussed in Section 5.5.1 by the fact that they buy in capability by hiring specialists with relevant experience in the organisational capability that is to be built. Secondly, the cyclical nature of the organisational adjustment process suggests that organisational learning occurs at the lower levels; this allows the emergence of capability circles formed by relevant organisational members, although the newly-

hired specialists may play a leading role in them. This scenario differs from that found in the previous category of firms.

5.5.3. Developing Generative Capabilities

Different from other levels of capabilities, these capabilities are more suitable to be built internally and cannot be hired from outside. A knowledgeable specialist can be hired (for example a Quality Specialist was hired at Seahorse Hotel when the management decided to install a quality management system), but these specialists play a rather different role when compared to the specialists operating at the adaptive capability level. Their role changes from 'solution provider' to 'knowledge provider'; they do not train their employees to solve a particular problem. Rather, they prefer to provide the resources and knowledge to the employees to develop individual capabilities and then let them come up with their own solutions, or at least they rely on the knowledge and insights of other employees in developing solutions to immediate and complex problems. The case of the quality management system development project at Seahorse Hotel demonstrates that the Quality Specialist, Amy, did not impose her solution or implement her action plan after she was hired. Actually, she did not even have a solution or action plan when she started work at Seahorse. She researched quality management systems and applications in the services industry in general and in the tourism industry, and then shared her knowledge with employees. Crea-QM was jointly developed through collective discussions, the pilot testing of various quality control and measurement forms, debriefing sessions about the results of pilot tests, and quality performance evaluation meetings. During the quality management building process, Amy worked in the kitchen area for two months, observed the work routines and attitudes of the staff towards existing quality measurement forms, talked with them about what was wrong with the current forms, why the forms were not filled in properly, and how the forms could be improved to solve the problem.

This example clearly shows that although Amy has expert knowledge in various quality management applications, she does not act as the 'solution provider'; Crea-QM was collectively created as a response to employees' expectations, perceptions

and experiences in a way that would suit their individual capabilities and the nature of the organisation's work. During the implementation of Crea-QM, if corrective action was needed Amy again did not provide or impose a solution; she bought the quality problem to the attention of weekly departmental staff meetings, reported on the results of her quality inspections, and shared her suggested action plan. The root causes of a particular quality problem were discussed at length and an action plan was generated collectively at the end of the meeting. Both Amy and the General Manager pointed out that having a collective discussion was much more effective and efficient than reading 'the expert report', as an action plan generated with the insights of employees experiencing the problem on a daily basis reflected the real nature of the deficiency better and more accurately.

Evaluating and solving problems collectively and developing the organisation through this collective and deliberative effort suggests that capability circles in these firms exhibit a rather different nature when compared to the ones in firms investing in adaptive capabilities; this is visualised in Figure 5.2.

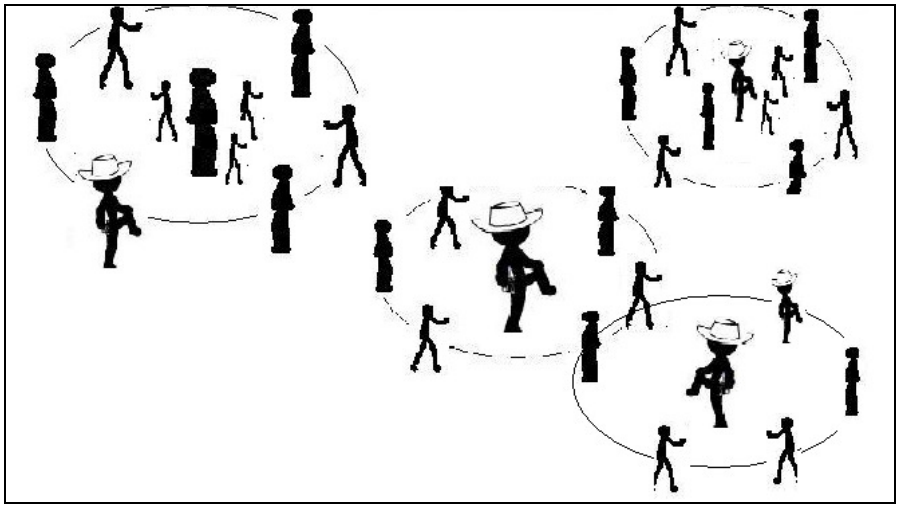

Figure 5.2. Representation of Capability Circles within an Organisation with Generative Capabilities

First of all, as the position of Amy in the Crea-QM project suggests, the specialist does not necessarily sit in the centre of the capability circle. The centre can either be occupied by the specialist or by an employee. In this sense, hierarchical power is not associated with the expertise power related to the capability being built. In fact, the collective nature of capability building for quality improvement at Seahorse Hotel implies that the centre of a given capability circle can be occupied by a group of

individuals – in this particular case the centre was occupied jointly by the 'head chief', the Quality Specialist, and by employees who wanted to contribute to the development of Crea-QM. Secondly, because capabilities are built internally in an emergent fashion by discussion, negotiation and evaluation, the centre of the capability circle can be transitory. Depending on what knowledge functionality is needed during the process of capability development, different individuals from different positions in the firm may rise to the position of knowledge provider to the capability circle. Thus, at the beginning of the Crea-QM project, in order to come up with the scope and a QM concept, extensive knowledge about quality management systems and their application to the tourism industry was needed. During this concept building phase, Amy was in the centre of the capability circle as the knowledge provider. But when the concept needed to be tested operationally, the kitchen staff transited to the centre of the circle. They acted as the providers of the critical knowledge about the organisational work in the kitchen that was needed for informative evaluation of the feasibility and applicability of the new QM concept. This case evidences that the specialist is not necessarily the knowledge provider, let alone the solution provider, for areas in which her expertise is inadequate. The collective nature of capability development in firms investing in generative capabilities takes us to the third and final attribute of the capability circles in these firms. Because the focus of emergent and ongoing change is on collective discussion and negotiation rather than on imposing a solution to fix immediate problems, capability circles may overlap, as visualised in Figure 5.2. Thus, although there were several departments within the Cure Centre or within the hotel complex, these departments came together both formally and informally. The fact that they shared knowledge on a continuous basis suggests that capability circles are overlapping, meaning that certain employees may be part of multiple capability circles. For example, all Cure Centre physiotherapists attend body message and hand message training to develop their individual capabilities and to contribute to the organisation's capability in alternative supportive treatments. Concurrently, some of them are part of the Waist School Project[6], which forms part of the promotion of the community health capability, a circle that was being built up at the time of the interviews. Interested physiotherapists have the opportunity to attend

[6] The Waist School Project is a one-month workshop aiming to create an awareness in the community of the importance of the correct use of the waist and lower back. It teaches participants how to protect and improve the health of their waist, back muscles and spine by applying a number of therapeutic exercise programmes.

pilates training and become certified pilates trainers and part of the wellness and fitness capability circle.

The active interest in capability development and knowledge acquisition reflected by a large part of the employees and the overlapping nature of capability circles at this level of capabilities prevent the emergence of specialised knowledge pockets within sub-units of the organisation. The fact that the Seahorse Cure Centre employees can self-select themselves to join the capability circles they are interested in implies a resemblance between this type of capability circle and Wenger's communities of practice. But it is important to remember that the capability circles are formed and approved by management and that, although employees can register their interest for a specific capability circle, in the end they are assigned to a circle by their group managers or by the specialist running the circle. In this sense, even for capability circles in which passion and commitment make a significant reflection a substantial degree of formality is found, contrary to the non-canonical nature of communities of practice.

5.6. Conclusion

At the start of this chapter I posed some questions for the chapter to answer. The main motivation for analysing the data for this chapter was to explore what organisational capabilities would look like from an enactment perspective in which an objective environment for the organisation to become aligned with does not exist. Having an enactment perspective at the core of organisational theorising had a number of important implications in its redefining of the relationship between the organisation and its environment. First, ruling out the assumption that an objective environment exists revealed the role of internal endogenous factors such as the organisation's attitude towards change, its knowledge orientation, perceived external change and management's perceptions of opportunities. Considering the role of these endogenous factors, in Section 5.2 I proposed that capabilities can be decomposed to three distinct levels, called the 'capability triad'. This capability triad sequentially steps organisational capabilities that can be built in response to perceived external change. Second, as was thoroughly discussed in Section 5.3, allowing for the impact of

organisational perceptions and assumptions about the environment, in line with the enactment perspective, doubts were cast on the validity of the traditional adjustment and alignment-based logic to characterise the organisation's relationship with its environment and external change. The contrasting capability levels at Crystal and Gold, Dolphin and Seahorse, highlighted that it is possible to have varying levels of firm dynamism, leading to varying capability levels, within the same external environment and still be able to maintain competitive advantage. If the traditional idea of alignment, which most of the current organisational theorising is based on, was valid, then firms that insisted on investing in adaptive capabilities in a high-velocity industry would be doomed to failure. However, the case of Dolphin shows that adaptive behaviour is acceptable within the tourism industry – which is classified as a high-velocity industry. Similarly, the proactive posture and aspirational approach of Gold Oil, which operates in a slowly-evolving industry, demonstrates that firms can choose to explore new opportunities, and dedicate themselves to continuous improvement and knowledge creation without necessarily aiming for organisation-environment fit. This finding suggests that although capability levels vary with environmental dynamism, a certain degree of 'envelopment' is allowed within each industry, thus creating room for managerial deliberation. Hence, applying the enactment perspective enhances our understanding of the development of organisational capabilities by introducing 'the idea of envelopment' as an alternative to the idea of alignment. The last part of the chapter built up the case for capability development processes and argued that there is a patterned relation between the level of capability to be developed and the approach to develop it. It is suggested that while operational and adaptive capabilities can be *bought* in, generative capabilities should be *internally built* because of their complex and idiosyncratic nature.

Table 5.4 provides an integrative framework of the capability triad and summarises the information discussed throughout the chapter. As I illustrated in the development of the framework, some organisations could not learn and innovate systemically, and rely instead on ad-hoc efforts. In terms of enactment, I argue that their inability to learn and innovate arises directly from the capability level they operate at. This inability is not caused by path dependency or industrial and organisational dynamics, at least not directly, but rather the assumptions on which they base their actions, on the skills, resources and knowledge functionalities that form the organisational

capability sets that are prioritised by management, and on how capability development investments are organised.

Capability Level	Perceived External Change	Targeted towards…	Organisation's Stance	Learning Type	Learning Mode	Capability development through…
Operational Capabilities	Static and simple	Survival	Passive	Zero-learning	Ad-hoc/ Coercive Learning	Buying in (Hiring)
Adaptive Capabilities	Complex, turbulent and threatening	Alignment	Reactive	Single-loop learning	Focused Learning	Buying in expert knowledge by hiring specialists
Generative Capabilities	Complex, penetrable and opportunity-creating	Continuous improvement	Proactive	Double-loop learning	Integrated Learning	Building internally

Table 5.4 Organisational Enactment, Learning and Capability

The framework created is limited by the data and analyses used, and it is based on mature organisations, so the particular features of capabilities I found may only fit similar organisations. If nothing else, the framework shows that the commonalities and idiosyncrasies of organisational capabilities can be empirically observed; they need not be assumed (e.g. Eisenhardt and Martin, 2000) or ignored (e.g. Teece and Pisano, 1994; Teece et al., 1997). The framework as presented in this chapter does not detail how organisational capabilities are created and maintained; Section 5.4 briefly discusses an 'outer shell' of specific managerial choices and social mechanisms that foster or inhibit knowledge search and generation. But if managers are to use this framework of organisational capabilities for continuous learning, sustained innovation and organisational development, they first need to understand how the organisational capabilities outlined in this chapter can be built and supported. Thus, in the following chapter, I will describe in detail 'the inner shell' of specific mechanisms and organisational practices that foster high-quality organisational learning that is exhibited via increased knowledge generation and innovation. Then, we can obtain a deeper understanding of not only why organisational capabilities matter but also how to create them. Without this level of detail, the concept of organisational capabilities may become an abstraction that is too impenetrable for managers to understand how to apply to the innovation and learning efforts of the firm. Without a clear understanding of the intricacies of capability development, the processes of

organisations and the role they play, the concept of capability itself cannot be understood and cannot be engendered through learning activities.

CHAPTER 6

EXPLORING ORGANISATIONAL LEARNING MECHANISMS: UNDERLYING PROCESSES FOR CAPABILITY DEVELOPMENT

6.1. Introduction

The literature on organisation theory and strategic management acknowledges the critical role of the acquisition and development of capabilities for increased organisational performance. (Teece and Pisano, 1994). In the previous chapter I discussed how organisations can choose to acquire a variety of capabilities for sustained competitive advantage. The central issue that requires further scrutiny is how organisations develop and adjust their portfolio of capabilities. This chapter investigates how organisations implement appropriate learning strategies for capability development. In doing so, I will adopt an organisational learning perspective to capability development and contend that organisations and their members need to learn from their environment and acquire new knowledge to reorganise their business practices in order to remain competitive. The argument that organisational learning provides organisations with an effective means to develop new capabilities and sustain existing ones is in line with scholars who consider learning to be the driving force for the creation, dissemination and exploitation of organisational resources that foster organisational adaptation and innovation (Teece et al., 1997 Teece, 2011).

This study considers the organisation as a knowledge-based system (Daft and Weick, 1994) which is constituted by different units (e.g. employees, work groups, capability circles, departments) that create, disseminate and share knowledge The processes through which knowledge is created and disseminated are critical, in particular because knowledge-based activities support the development and refinement of a variety of capabilities (Penrose, 1959 cited in Pitelis, 2007; Teece and Pisano, 1994). This view of the organisation has three main implications. First, it assumes that the organisation is an entity capable of developing suitable responses to changing environmental circumstances (Daft and Lewin, 1993). Second, it provides structures

and processes to attend to environmental changes and realise organisational change in order to make the necessary response to environmental change. Third, these processes and structures are important in a variety of ways for the ability or inability of organisations to adapt to changing environmental circumstances and to regenerate (Feldman and Rafaeli, 2002; Teece and Pisano, 1994; Tranfield and Smith, 1995).

If organisations learn and assimilate new knowledge to develop capabilities then, following Pentland and Feldman's (2005) suggestion, I need to understand the underlying organisational learning processes in order to explain what promotes learning and adaptation in organisations and leads to organisational renewal and change. Pentland and Feldman (2005) propose three approaches to studying organisational processes: (1) treating organisational processes as black boxes, (2) examining parts of organisational processes, and (3) considering interactions between various aspects of a process. One option is to apply the black box approach by focusing on the inputs and outputs of a specific organisational process. By using this approach, a scholar would study organisational processes and internal structures to explain the change in organisational capabilities that lead to increased organisational performance. In order to appreciate the dynamics occurring in specific organisational processes, Pentland and Feldman (2005) suggest looking inside an organisational process to examine its constituent parts by considering: (1) the performative aspect, (2) the ostensive aspect, (3) or related artefacts. Studying the performative aspect requires the scholar to observe patterns of actions performed by specific people, at specific times, in specific places when they are engaged in an organisational process in order to understand how the context of action changes the performances of that action. Research on the ostensive aspect is distinguished by its focus on the abstract idea of the process as the scholar collects information about the general outline of a process from groups of organisational members, without reference to particular performances of that process. "The ostensive aspect … is the idea; the performative aspect, the enactment" (Feldman and Pentland, 2003: 102). Lastly, some researchers use artefacts, such as rules, standard operating procedures, forms and formalised job descriptions, as indicators of ostensive and performative aspects to examine factors relating to change in organisational processes. While Pentland and Feldman (2005) state that, for many research questions, studying parts of an organisational process might be adequate, researchers need to take a further step and begin to study the

interactions between three aspects of processes (i.e., performative, ostensive and artefacts) if they want to understand the factors leading to change in organisational processes.

For the purposes of this study, first I will examine the organisational processes relating to collective learning activities that are designed by management for capability development purposes as black boxes, in line with Popper and Lipshitz's work (Popper and Lipshitz, 1998; 2000; Lipshitz and Popper, 2000). Thus, in the following section, I will examine the *organisational learning mechanisms* in participant organisations with the inspiration to further their capabilities and knowledge which are seen as critical for sustained competitive advantage. Eisenhardt and Martin (2000) claim that learning mechanisms underlie and guide the evolution of firm capabilities, but their definition and discussion of learning mechanisms are very vague and the concept is treated only superficially. Thus, this chapter details their argument further by reframing and scrutinising the concept of organisational learning mechanisms. Yet, as Pentland and Feldman (2005) argue, in doing so I found some indication that studying *organisational learning mechanisms* in an undifferentiated way without looking at their underlying dynamics provides only a partial understanding of the learning strategies of the organisation and falls behind in explaining why some organisations learn more effectively than others, thus making them more successful in adaptation and regeneration. In order to examine the accuracy and over-simplification problem created by the generalisation ingrained in the black box approach, in Chapter 6.3 I look below the surface to understand how particular OLMs are implemented. In doing so, I focus on the ostensive aspect of *learning mechanisms* – the procedural and social arrangements that play a mediating role in determining the patterns of actions carried out during specific learning mechanisms. Since Pentland and Feldman (2005) suggest that focusing on the performative aspect is more suitable for field studies aiming to compare performances, I limited the study by focusing on the ostensive and related artefacts which are found to be "typical of firm-level or establishment level studies" (p.802).

6.2. Conceptualising Organisational Learning Mechanisms

As mentioned in the previous section, organisations utilise a variety of internal structures and processes to attend environmental changes and to realise organisational change in order to give the necessary responses to those changing circumstances. Lipshitz and Popper (2000) call these structures organisational learning mechanisms (henceforth OLMs), which can be defined as the institutionalised structural and procedural arrangements that allow organisations to systematically collect, analyse, store, disseminate and use information relevant to the performance of the organisation. OLMs can be both formal and informal organisational entities and individual and collective mechanisms extant in the organisations through which knowledge is shared and capabilities are developed. A very common example of OLMs would be staff meetings, but as the discussion in the following section indicates, OLMs are much more diverse than that. OLMs range from social organisational arrangements such as meetings and training to physical objects such as reports and suggestion boxes. In order to be classified as an OLM, an organisational structure should provide a venue or a means for aiding knowledge acquisition and exchange which will lead to the transfer and modification of individual learning to the organisational knowledge base. Another common denominator of OLMs is that they are enduring and, in that sense, institutionalised features of the organisation.

Nineteen OLMs were identified in six organisations through a search for systematic patterns of formal and informal learning events and other knowledge acquisition and integration activities. This list was developed inductively from the interviews, thus, most certainly, it captures all organisational processes and practices that learning is embodied in, not merely formal standardised learning events like training. The following section briefly describes the OLMs operated in the participant organisations and Table 6.1 provides a snapshot of these OLMs. The list of OLMs as described by interviewees is categorised in line with Huber's (1991) processes of learning – knowledge acquisition, knowledge distribution and knowledge interpretation.

> *Knowledge acquisition* is the process by which knowledge is obtained. *Information distribution* is the process by which information from different sources is shared and thereby leads to new information or understanding. *Information interpretation* is the process by which

distributed information is given one or more commonly understood interpretations. (Huber, 1991: 90)[1]

Company Name / Organisational Learning Mechanism	Crystal Oil	Gold Oil	Suspension	Accelerator	Dolphin	Seahorse
1. Knowledge Acquisition Mechanisms						
Quality Management System (ISO and other)		✓	✓	✓	✓	✓
Internal Quality Audits		✓	✓	✓	✓	✓
External Quality Audits				✓		✓
Staff Surveys					✓	
Suggestion Boxes		✓		✓	✓	
Overseas Trips ♦						✓
Journal Reading Hours						✓
Occupational Library						✓
2. Knowledge Distribution Mechanisms						
In-house Training						
a. On-the-job training	✓	✓	✓	✓	✓	✓
b. Quality training		✓	✓	✓	✓	✓
c. Technical training (professional development)		✓		✓	✓	✓
d. Behavioural training (personal development)					✓	✓
External Training				✓	✓	✓
Learning Reports				✓		✓
Research Club						✓
3. Knowledge Interpretation Mechanisms						
Review of Patient Records	N/A	N/A	N/A	N/A	✓	✓
Quality Meetings			✓	✓	✓	✓
Staff and Management Meetings	✓	✓	✓	✓	✓	✓
Union Meetings	N/A	N/A	N/A	N/A	N/A	✓

♦ Undoubtedly, overseas trips are very common in every organisation that has an international outlook. But here, I only include overseas trips which are inclusive. That is to say, international fairs to explore trading opportunities or family/board members' visits abroad are not included in this table.

Table 6.1. List of Organisational Learning Mechanisms

[1] Huber (1991) uses the word *information* when referring to data that reduce ambiguity and uncertainty and other types of factual knowledge, while he uses *knowledge* when referring to more complex products of learning, such as know-how (See footnote No. 1 on p.89 in Huber, 1991 for more details). However, I think that not every learning product that is being distributed and interpreted is necessarily factual and declarative as data. To me, information refers to facts expressed verbally or numerically with regard to cases, events, outcomes and so forth. As such, information does not convey, in itself, any additional meaning such as intentions, relevance, significance or its place in the larger scheme of things. People may share their individual experiences, observations and thoughts before they make sense of them, and they can interpret these ambiguous products of learning in a social environment, collectively, with their colleagues. Thus, knowledge is information plus interpretation; it is endowed with meaning. Furthermore, it enables the recipient to act in a way that is intended to achieve a desired action; knowledge is something that can be acted upon. For that reason, I preferred to use *knowledge* consistently instead of *information*.

A similar, very popular, classification was introduced by Alavi and Leidner (2001) – knowledge creation, knowledge storage and retrieval, knowledge transfer and knowledge application. Since this thesis is interested in exploring the structural and social factors conducive to extensive organisational learning processes for high-level capability development, knowledge storage, with its information technology focus, is not a relevant process. And knowledge application is a process beyond the scope of this study. Surely, capabilities are about knowledge application; but with its inductive and constructivist focus, this study refrains from mapping suggesting cause-and-effect relationship between specific organisational learning mechanisms used to acquire certain knowledge sets which will then be applied for the deployment of specific organisational capabilities. For this reason, while recognising the cognitive underpinnings of Huber's work, I choose to use his classification as it is useful for classifying OLMs, following Popper and Lipshitz's (1998, 2000) conceptualisation of the notion.

6.2.1. Knowledge Acquisition Mechanisms

Quality Management System. As a result of the importance attached to documentation and measurement, quality management systems enable the organisation to collect information relating to quality performance which serves as an input for quality assurance and quality improvement actions. This OLM, if supported with proper rules and procedures (as will be discussed in Section 6.3.1), places emphasis on the continuous improvement of organisational performance through the continual review of organisational processes and practices.

Quality Audits. Quality audits are typically performed at predefined time intervals by an internal or external quality auditor, or by an audit team, in all five firms having a quality management system in place. OLMs are an important part of the organisation's *Quality Management System* (QMS) and are a key element of the ISO quality system standard. Their primary objectives are to determine if the organisation complies with the defined quality processes and to collect data regarding the results achieved through the implementation of the QMS. The documentation resulting from these OLMs provides valuable input to the *Quality Meetings,* described in Section 6.2.3, where corrective and preventive actions are discussed and

determined. Especially, the thorough internal and external quality audits carried out at Accelerator Automotive and Seahorse Hotel include detailed results-based assessment criteria which enable management to collect and store information regarding not only procedural adherence to QMS but also measurement of the actual effectiveness of the QMS.

Staff Surveys. This OLM is conducted only at Dolphin Hotel, by the HR Department, in order to acquire information about staff satisfaction with training programmes, and the management and organisation's social and work environment. There is an action team constituted by the HR staff and the Quality Specialist which develops and implements ideas to tap into the improvement areas identified by the survey results.

Suggestion Boxes. Another OLM used to obtain employee input is suggestion boxes which are a device to garner employee suggestions to improve working conditions and work procedures and to field employees' innovative ideas relevant to the performance of the organisation. Suggestion boxes are utilised at Gold Oil, Accelerator Automotive and Dolphin Hotel and, in all these firms, in order to encourage employees to attach a value to this OLM and to submit their ideas, the employees whose suggestions are implemented are rewarded in some form, either with extra annual leave or with money.

Overseas Trips. This OLM, only observed at Seahorse Hotel, can be seen as an extension of external training activities, giving the opportunity to certain employees, in line with organisational objectives and strategic priorities, to go abroad, to attend conferences or work in a hotel, in order to increase their specialised knowledge and expertise. This OLM is not utilised frequently, even at Seahorse Hotel. Five years ago, the Head Chef was sent to a hotel in Norway for four months to understand better the substance of change efforts to increase Seahorse's kitchen and hygiene standards in line with the requirements of the the Norwegian Ministry of Health. Additionally, physiotherapy MDs are sent to Germany every two years to excel in new thermal therapy methods and health standards relating to treatment effectiveness.

Journal Reading Hours. This OLM, operated only at the Seahorse Hotel Cure Centre, is aimed at creating a designated time for physiotherapists and MDs to keep up with recent developments in therapy and treatment methods by reading publications from

the professional literature. It was initially intended to be held on alternate weeks in the *Research Club* (described below under Section 6.2.2), to ensure the continuous input of material to the *Research Club,* meaning that participants can present the practices and innovations they read about during *Journal Reading Hours* and discuss their ideas at the *Research Club.* But because of the busy daily routine, this OLM is not operated systematically, and the majority of attendees are MDs, partly because of their professional interest in research activities due to the education they have received and partly because their daily work schedule, compared to the physiotherapists, allows them some free time to concentrate on research. However, all members of staff are still expected to present something at the *Research Club*, as described below.

Occupational Library. Another OLM observed only at Seahorse Hotel and facilitating new knowledge acquisition by organisational members is the existence of an occupational library in the organisation. In this library, there are sections targeting all departments of the organisation from gastronomy to customer relations; it notably includes a wide range of physiotherapy and other medical publications. Employees utilising the library have the opportunity to acquire new information and skills and to build their individual capabilities by learning new knowledge related to their jobs and wider interests.

6.2.2. Knowledge Distribution Mechanisms

On-the-job Training. This is a training activity performed in all six firms in which, during their first weeks, newly recruited or relocated employees are provided with basic information about the job they will be doing, by their immediate supervisors. The aim is to familiarise employees with machines and equipments they will be working with. Additional on-the-job training can be organised for existing staff when new machinery or technology is bought in, by equipment vendors to show how to operate it.

Quality Training. These are training programmes in which the standards requirements for Quality Certifications that the firms have (e.g. ISO 9001, ISO 14001, HACCP, etc.) are explained in connection with the employees' job descriptions. They are performed in five out of the six firms that participated in this research and which have

various quality certificates. The curricula for these training courses are predetermined by the certifying bodies and thus are standard for all firms operating in a particular industry. They include seminars on various topics, ranging from basic orientation seminars on how to define quality, the importance of documentation and an introduction to the measurement and control, to more specialised subjects, such as hygiene, pest control and the importance of customer satisfaction.

Technical Training. This mainly includes basic vocational and technical courses that are job-related and are present at Gold Oil, Accelerator Automotive, Dolphin Hotel and Seahorse Hotel. They are aimed at increasing the knowledge and skills of employees on the jobs they are responsible for. Through these, employees become equipped with the knowledge, information and skills they need to perform successfully in their respective jobs. They take different forms, in each department, as the skills needed for every position are different. Generally speaking, while technical training is more basic for blue-collar workers, it can involve more advanced specialist training for white-collar workers and senior blue-collar workers.

Behavioural Training. This OLM offered at Gold Oil, Dolphin Hotel and Seahorse Hotel, includes personal development training that is not directly related to the jobs that employees perform. There are training activities aimed at developing employees' individual skills and capabilities on topics such as professional behaviour patterns, stress management, time management, communication skills, emotional intelligence and teamwork.

External Training. The four training programmes described above, although differing in their content, are all delivered in-house. They are either internally sourced (i.e. offered by an employee of the organisation) or are delivered by training and consultancy companies on site, though a few of them may be conducted off-site; but the common ground is that they are all sanctioned and organised by the management to meet the training needs of the employees. External training refers to the training programmes available at Accelerator Automotive, Dolphin and Seahorse Hotels which are delivered independently by an external training body such as a professional association or the Ministry, and employees of the organisation are allowed to attend courses that are relevant to their professional and personal development at their own discretion. Employee participation in a particular external training programme is

funded and should be approved by management; but if participation is granted, employees have the opportunity to attend a training activity they are personally interested in, with a group of trainees working for various firms sharing the same interest.

Learning Report. At Accelerator Automotive and Seahorse Hotel – two of the organisations in which employees can attend external training – after attending a training course the employee is required to write a report to the group manager and/or top management, including the aim(s) of the event, the reason(s) for participation, the material and/or development that she was exposed to during the course, and the ideas that she thinks can be implemented within the organisation. For manufacturing staff working at Accelerator, the employee is also expected to do a small-scale project and to apply the knowledge acquired at the event. This OLM is seen as critical, not only for measuring and ensuring training effectiveness, but also for the integration of new knowledge into the organisation. At the Seahorse Cure Centre, this OLM is operated in conjunction with the *Research Club* where attendees share the new knowledge they have acquired with their colleagues on a more interactive platform, so that the combination of the two OLMs can lead to new understandings of the same knowledge.

Research Club. As mentioned above, this OLM is operated only at the Seahorse Hotel Cure Centre. It takes place fortnightly, with the participation of all physiotherapists and some MDs for knowledge sharing purposes. It includes presentations of innovative applications in the industry published in the professional literature and presented at training events and conferences by physiotherapists and physiotherapy MDs. Employees who come across a new idea, new application or new treatment method in their *Journal Reading Hours* or *External Training* OLMs, or as a result of their individual research, share their findings with their colleagues during these meetings. The ideas in line with Seahorse's overarching 'Healthy Living and Healthy Ageing' concept and in accordance with the scientific notions the Cure Centre adheres to, are explicated at length during this OLM; a group of employees interested in carrying a particular idea further can initiate an ad-hoc R&D team for further examination and a feasibility study of the idea. Sharing ideas and newly acquired knowledge with colleagues in an environment of open discussion not only leads to enhanced understanding and integration of new knowledge but also has the potential

to lead to some knowledge overspills by triggering the emergence of innovative ideas and thoughts.

6.2.3. Knowledge Interpretation Mechanisms

Review of Patient Records. This OLM is operated only at the Seahorse and Dolphin Hotel cure centres. They aim to review treatment effectiveness for patients suffering from various health conditions based on statistical indicators of medical records. This year-end review helps the medical superintendents to analyse and use information relevant to the performance of the cure centre. The results of these periodic reviews lead to changes in treatment methods and practices.

Quality Meetings. Meetings to review quality and determine corrective and preventive actions are held at pre-determined intervals. At Accelerator and Suspension Automotive, they take place on a weekly basis, with the participation of departmental managers and the quality assurance department's staff; they aim to discuss identified quality problems and issues and to take action to solve those. At Dolphin Hotel, quality meetings are scheduled to take place after the internal quality audit (once a month for the kitchen and twice a year for other departments), and any issues emerging in the meantime are discussed either during *Staff Meetings* or *Management Meetings.* At Seahorse Hotel, quality meetings are merged with *Staff Meetings* as the Quality Specialist attends *Staff Meetings* (once a week for kitchen and once a month for other departments) to present her audit findings and open her suggested action plans to discussion.

Staff Meetings. Weekly departmental meetings are held in all six firms to review organisational performance, to discuss issues relating to product/service quality, to reflect on problematic cases and experiences, and to develop action plans to increase performance. Customer feedback and complaints are also considered during those meetings in departments that have customer contact.

Management Meetings. These meetings are held in all six firms once a month, at top management level, with the participation of departmental managers and the general manager. They are devoted to briefings from weekly staff meetings and the discussion

of organisational problems, including a review of performance and quality improvement suggestions collected via *Suggestion Boxes* and/or *Learning Reports* – in organisations in which these OLMs exist.

Union Meetings. The hotel staff at Seahorse Hotel are the only unionised workforce among the participant organisations. The General Manager and the HR Manager meet with union representatives twice a year to share and analyse information regarding working conditions and employee performance and to discuss any organisational or personal problems relevant to the performance of the organisation and the well-being of employees. HR matters, such as promotions, sanctions and pay rises, are determined during these meetings but, more importantly, actions related to organisational development and improvements in the working environment are decided as a result of these discussions.

6.3. The Structural and Cultural Facets of High-Quality Organisational Learning

The organisational learning mechanisms described in the preceding section can be viewed as a directly observable social infrastructure that enables organisations to learn. In Table 6.1, the presence of each OLM is indicated by ticks in the appropriate boxes. The ticks tell us nothing about 'how' particular OLMs are performed or implemented, and I will discuss their implementation later in this section. However, I start with comments on the simple patterns evident in the table.

Although all six companies utilise several OLMs, it is evident that, within the same industry, adapter firms have fewer OLMs than innovator firms. This suggests that innovators show more willingness and exhibit more capacity to learn than do adapters. But, interestingly, this distinction between innovators and adapters does not hold when an inter-industry comparison is made. As discussed in Section 5.2.3, Gold Oil – one of the two firms having generative capabilities – exhibits a particularly telling example of double-loop learning. While Seahorse Hotel – the other firm associated with generative capabilities and double-loop learning – is the organisation with the most varied OLMs, Gold Oil is positioned at the lower-end of the continuum when organisations are placed on a scale with respect to the variety of OLMs they operate.

Gold Oil, which is classified as an innovator, has far fewer OLMs in place when compared to Suspension Automotive and Dolphin Hotel which are classified as adapters. This relative difference in the use of OLMs can be explained by the firms' varying levels of market dynamism. Because the olive-oil industry is a slowly-evolving market, the degree of new knowledge generation and technology creation at the industrial level is low, meaning that the amount of knowledge that the organisation has to acquire and can acquire is not as great as in a more dynamic industry.

This suggests that it is not necessary to have a large number of learning mechanisms in markets with low rates of change, and may even prove to be dysfunctional, as the organisation might be spending too much of its resources on explorative activities at the expense of focusing on exploiting its current capabilities. In this respect, as was mentioned in Section 5.3, there is not only a limit to the lethargy tolerated by the industry dynamics but also a limit to dynamism, since there is a limit to the knowledge that an organisation can acquire to build even the most complex organisational capabilities (i.e. generative capabilities). Thus, both Dolphin Hotel and Seahorse Hotel have institutionalised more OLMs than Suspension Automotive and Accelerator Automotive. It can be concluded that organisations inhabiting environments with relatively higher rates of change utilise a higher quantity of OLMs when compared to organisations inhabiting relatively slow-changing environments. This finding provides empirical support for Zollo and Winter's (2002) suggestions that higher speed requirements of a business environment (such as the speed of technological development) require greater learning investment.

OLMs provide the structural basis for studying and managing organisational learning, but the existence of OLMs does not however ensure that organisational learning will occur or that learning will be productive. Although some OLMs, such as training and meetings, exist at all research participants, be they adapters or innovators, they do not produce the same learning outcomes. For instance, although every organisation presented some sort of training opportunities to its employees, the knowledge base and knowledge generation potential of each organisation differs dramatically when compared with each other. If the existence of one particular OLM was enough to get the intended learning outcome, we should have expected to see similar patterns of knowledge acquisition and generation in all six cases. Interestingly, research data

suggest quite the opposite. This suggests that the existence of OLMs cannot, in itself, account for productive organisational learning. OLMs such as technical training, quality training and quality meetings can be instituted and operated with great fanfare yet without improving the organisation (Feldman and March, 1981). In recognition of this possibility, we wanted to assess the contribution of particular procedural and social arrangements of specific OLMs to innovation and learning. Therefore, the next step is to look at the aspects of structural and cultural context that shape organisational learning in OLMs.

When the OLMs in six participant organisations are compared, we find out that there is a clear distinction between standard information processing mechanisms and more reflective learning mechanisms which generate imaginative responses to environmental challenges. It is clear that these results ask for a better understanding of the details of OLMs and how they mutually affect one another. Thus, I refined the concept of OLMs as discussed by Lipshitz and Popper (2000) and Popper and Lipshitz (1998, 2000). The prior work of Popper and Lipshitz is extended by detailing concrete mechanisms and by examining the ostensive aspect. The importance of looking inside the black box is succinctly argued by Feldman (2000), with an analogy from linguistics:

> Pentland (1995) and Pentland and Rueter (1994) are saying that within a particular structure there are many ways of saying the same thing. We can, for instance, indicate approval in a variety of different ways: good, ok, nice work, etc. Levitt and March (1988) and March and Olsen (1989) are saying that we can draw words from other structures to show approval. We can, for instance, draw on different languages and say bon, très bien, bueno, etc. … Each of these are different processes for changing how we show approval, and there are strong similarities between the three processes. In all cases, 'the same thing' becomes a slightly different thing because it is said in a different way.

This perspective of OLMs fits with an understanding of learning and innovation (or innovating) as an ongoing accomplishment. Learning, innovating or knowledge sharing (whatever aspect of change you want to consider) do not happen as a result of an OLM but are constantly created and accomplished during the course of an OLM. What you will learn and take out of the room after an OLM has finished depends very much on the internal dynamics of that OLM and what happens and how it happens during its implementation. The purpose and aspiration in designing and implementing

an OLM, and the procedural arrangements via which the OLM is run, further the current managerial goal of designing that particular OLM, permitting unplanned learning from the same OLM. Thus, the learning outcome depends in part on managerial attention to procedural and social arrangements. Attending to the ostensive aspect of the OLM also assists in *bridging the acquisitionist and participationist metaphors,* as detailed in Chapter 2.3.3; this is because it facilitates seeing beyond knowledge acquisition and transfer structures and embracing the social and cultural facets of OLMs by exploring the interaction and participation patterns and organisational values underpinning the OLM's design and implementation.

I argue that the key to productive learning lies in at least three critical mediating factors: the rules and procedures followed for running the OLM, the extent of the co-creation of knowledge, and the recognition of the value of knowledge by senior management. In the following, I will present three vignettes exemplifying the influence of these three factors. The first vignette describes the different rules and conventions followed in implementing the training curricula offered by the six organisations. The second vignette touches on the importance of the co-creation of knowledge through reviews of patient records in the Dolphin Cure Centre and the Seahorse Cure Centre. The third vignette covers differing applications of quality mechanisms in five of the organisations; it shows how senior management's valuation of knowledge influences the use of a quality management system. Each of these vignettes analyses a different OLM, all commonly found in organisations, namely training, meetings and quality management systems. I argue that productive organisational learning is contingent on the existence of these three elements. The rationale for selecting these three factors is that they support theoretical understanding and managerial action. They provide a comprehensive but parsimonious model for capturing the key features of an organisational context that encourages extensive and simply more *organisational* learning. Although I will be treating each factor separately, in the next chapter we will see that they are interdependent and mutually reinforcing.

6.3.1. Rules and Procedures

As presented in the previous section, every organisation participating in this research provides some sort of training to its employees. But the emphasis given to employee development (both technical and behavioural) varies between them. In Table 6.1, I have separated the training initiatives of the organisations into four broad categories: (1) on-the-job training, (2) quality training which is required by the ISO or other certifying body, (3) technical training aiming at the professional development of employees, and (4) behavioural training such as time-management or communication skills which aim to support the personal development of employees. Using this broad categorisation, we can easily place the six organisations on a continuum where, at the low end, we will see Crystal Oil and, at the high end, there will be Seahorse Hotel, which is the organisation with the most advanced training programme. But clearly, using these four categories says little about the quality or content of training offered by the organisations. While analysing the training programmes of the research participants, it became clear to me that organisations' training curricula can be compared in several dimensions.

(1) What is the content of the training? (on-the-job, quality, technical, behavioural)

(2) Who decides which training to include in the curriculum? (the employee herself, employee's department, a centralised body in the organisation – HR department or quality department – decides on the training needs for all organisational members)

(3) How is the training delivered? (in-house, by predetermined external bodies, by various external bodies)

(4) Is training effectiveness measured? If yes, how?

Using these questions to analyse the training curriculum of organisations gives a better understanding of the rules and conventions followed by them in operating a particular OLM. It is important to note that the first question is the same one that I answered in order to determine the OLMs for each research participant when building Table 6.1, suggesting that in order to be able to study the underlying dynamics of OLMs, I first need to have a non-metaphorical, concrete and directly observable mechanism-learning event. Table 6.2 provides answers to the questions:

	(1) Content of the training				(2) Deciding body			(3) Delivery of the training			(4) Training effectiveness measurement
	O-t-J	QUAL	TECH	BEH	CENT	DEPT	EMPL	INT	EXT	VAR	(Yes/No)
Crystal	✓				No training programme						No
Gold	✓	✓	✓		✓			✓	✓		No
Suspension	✓	✓			✓			✓			Yes
Accelerator	✓	✓	✓			✓		✓	✓		Yes
Dolphin	✓	✓	✓	✓		✓		✓	✓		Yes
Seahorse	✓	✓	✓	✓			✓	✓	✓	✓	Yes

Table 6.2. Summary of Training Programme Features

Crystal Oil does not have a formal designed training curriculum. The only training offered to employees is basic on-the-job training in which the foreman shows newly-recruited operators how to operate a machine. Additional on-the-job training is organised for existing staff when new machinery and technology is bought in. Occasionally, the finance director meets with young and interested staff and they teach some skills to each other, such as MS Office applications and presentation skills. But these are informal unsystematic learning efforts; they are sporadic in nature and have no associated rules or conventions of conduct

.

Gold Oil, which operates in the same industry, has a formal training curriculum. It offers on-the-job training, quality training required for ISO certification, and technical training to transfer the knowledge needed by employees in order to perform their respective tasks. The curriculum for the quality training is predetermined by the certifying body and is delivered by a consultancy company hired for the development, implementation, training and review of ISO Quality Systems. Alongside these fairly standardised quality training courses, the shop-floor workers and sales staff attend professional training courses relevant to their job. There are two people who decide the content of these job-related technical training courses. The Quality Manager is responsible for developing the content for the production staff, while the technical training programme for the sales and merchandising team is prepared and implemented by the Business Development Manager. The content of these courses is richer when compared to the quality training, and they are updated frequently, even monthly, when a problem is noticed with the application of training deliverables. This corrective action for training content is generally the case for production-related technical training as quality problems are easier to detect when compared to the soft

skills linked to sales-related training courses. These technical training courses are generally internally sourced, especially for the sales and merchandising staff, but, when necessary, external trainers with expert knowledge are invited on site to deliver training. On the other hand, it is not possible to claim that equal learning opportunities exist for all levels of staff. The learning and training opportunities for senior managers are far more extensive and various. For example, while the Marketing and Communications Manager, who is a member of the owner's family, attends three or more marketing-related conferences each year, her subordinate is excluded from this rich and varied knowledge source. Similarly, the Production Manager, who again is a family member, goes on olive-oil factory trips overseas in order to learn about new technologies, but no other engineer from the factory has this kind of learning opportunity.

The routine for determining employees' training needs and designing the training curriculum is the same at **Suspension Automotive.** It is the Quality Department that determines the curriculum and prepares an annual training schedule. Not surprisingly, all courses are focused on quality and thus mainly relate to employees working on the shop-floor. The administrative personnel receive only introductory training about the fundamentals of the ISO system. In this respect, the span of content covered in the training courses is much narrower at Suspension when compared to other companies. All training is delivered in-house at Suspension by the Quality Manager. It is only she (and in some cases the Factory Manager) who attends external training events and then teaches what she has learnt in the external training to the rest of the staff. So the convention for receiving training suggests a more standardised OLM in the case of Suspension. The fact that all organisational members receive training from the same person – who is again an organisational member – might have a negative effect on the learning and knowledge generation potential of the OLM. It is the Quality Manager who decides which training to attend; and once she has learnt the information delivered on those courses, she filters her understanding on the subject based on her perception of what Suspension staff needs to know from the content of the training and what should be the message that the staff take from that. Moreover, as every member of staff is exposed to the same training material, regardless of their job or position, it means that they either learn things that are not central to their work or some of the things that are central to their work are presented in a fairly rudimentary

fashion in order to create common ground and language for all OLM participants. Data suggest that these procedures kill much of the dynamism that might otherwise have been generated from the OLM if run in a more participative and diverse manner. At the end of training, in order to measure its effectiveness, employees sit a multiple-choice exam. But as the Quality Manager admits:

> Knowing something and carrying that knowledge over to your work are two different things. For middle- and upper-managers above a certain educational level bridging this gap might be of little importance. Because for us, when you internalise the knowledge you apply it easily to your work practices. But for operational staff such a test means nothing but rote learning.

As a consequence of this test-taking procedure, the management cannot check whether the individual has learnt anything, let alone consider taking this knowledge to the next level of organisational learning.

The participative nature of and variety in training that were lacking at Suspension Automotive exist at **Accelerator Automotive**. First, as can be seen from Tables 6.1 and 6.2, the variety of training courses (OLMs) is greater at Accelerator when compared to Suspension. Although the lack of behavioural training courses is still an improvement area for Accelerator, when training rules and procedures are considered we see that Accelerator invests more in the development and enlargement of the organisational knowledge base. Each department declares its training needs to the HR Manager, who then creates an annual training budget and schedule. Employees can communicate individual training needs and suggestions to their manager which, after consideration at departmental level, can be incorporated into the training curriculum. The procedure of consulting departments and, indirectly, employees before designing the training curriculum makes the OLM more open to development and change. Secondly, the routine of delivering training courses creates potential for richer learning outcomes. At Accelerator, not only managers but also employees are allowed to attend external training events. They do not have the freedom to choose which events to attend but some of the technical training courses they are expected to complete as part of the training curriculum are delivered externally by the Association of Automotive Parts and Components Manufacturers (TAYSAD). These training courses take place at TAYSAD's headquarters, with the participation of TAYSAD member organisations' employees, meaning that the routine of sending employees to

TAYSAD training courses adds a social interaction aspect to this OLM. During the course, participants have the opportunity to meet other people from different organisations and to learn about different applications at different organisations. This injects some sort of dynamism into the OLM; having different trainers and different participants every single time produces diversity in learning outcomes. Contrary to the training effectiveness measurement method at Suspension, upon completion of technical training courses, attendees are expected to do a small-scale project and apply the knowledge acquired. This routine is not only a way of measuring training effectiveness but also ensures the integration of new knowledge into the organisation. If the employees went through a multiple-choice test as is the case at Suspension this would be a check on individual learning. This applied aspect at Accelerator acts as a mean of transferring individual learning to the organisational level by integrating the knowledge acquired.

When we look at OLMs operating in the tourism industry, we see that there is far more investment in human capital, as evidenced by the range and quantity of training courses offered. The first difference that commands attention is the existence of behavioural training courses at Dolphin Hotel and Seahorse Hotel, while the other organisations made no efforts in that area. This divide can be attributed to the nature of the services industry, as the main input to the production of service is the human element, while manufacturing industry relies more on technology and machinery than human capital. However, the argument put forward in this thesis warn us that it is not the quantity of OLMs that matters; real learning comes from how OLMs are run. Hence let me now describe how the existing OLMs are run in these two hotels.

As can be seen from Table 6.2, the training curriculum is determined and designed at departmental level at **Dolphin Hotel,** as was the case with Accelerator Automotive. Still, like Accelerator, Dolphin utilises external knowledge sources in the training of its employees. Yet, external bodies from which they receive training are more diverse – including consultancy companies, the Ministry of Culture and Tourism, Tourism Education Centres and two universities located in the city. The variety of bodies engaged in training delivery suggests that it is less standardised and more flexible when compared to other organisations. In particular, the training delivered by the university faculties of tourism tends to be quite changeable in terms of content and

mode of delivery. Sometimes, interested staff are invited to join a seminar at the university about novel topics in the area of tourism, or sometimes the hotel management request a guest lecturer to come to the hotel and give a lecture on a topic regarding day-to-day business. This collaboration with academia suggests that organisational members are interested in making use of the knowledge residing outside organisational boundaries, and even outside their immediate external environment.[2] In addition, the management encourages hotel staff to take part in the certificate programmes offered by the Ministry of Culture and Tourism and hence asks organisational members to take responsibility for their own learning and professional development, as becoming a certified employee is by no means a requisite for career development. The HR Manager comments that they would like their employees to be abreast of new developments and practices in the tourism business and be able to confront theory with practice which will make them question how they perform their jobs. Finally, as is the case with Accelerator Automotive, Dolphin has its own in-house training curriculum designed through departmental proposals, and thus answering the special needs of each department. These formal training courses can be both internally or externally sourced, depending on the topic.

As discussed previously and as can be inferred from Table 6.2, **Seahorse Hotel** has the most open learning system. Not only does it invest heavily in the training and development of organisational members at all levels, but it has also developed a set of participative routines to ensure dynamism and transiency. It has an extensive and comprehensive training curriculum, including quality training courses, professional training courses delivered by external bodies, international and national part-time certificate programmes attended over a long period of time (2.5 years for the cure centre staff and 2 years for hotel staff), which must be completed by every member of staff. But in contrast to other cases, this curriculum is fully tailored for the needs of

[2] I am aware that the distinction between organisation and environment is diffuse and fuzzy, problematising organisational boundaries and making them extremely difficult to define. If a boundary is defined as a "spatial boundary", then the university definitely resides beyond it. If I adopt a definition of operational activities, the boundary will include the entire value chain with the suppliers, consultancy companies hired, associations that the organisation is engaged with in an active manner, and so on; but the university will still be outside the organisation's boundaries as there is no formal or systematic operational intercourse between the two. In line with Cooper and Law's (1995, cited in Antonacopoluou et al. 2005) conception, I view the organisation as "mediating networks" and so the university will not be within the boundaries of Dolphin as the frequency of interaction is very low and random-looking, even at this analysis level of networks.

specific departments and, in order to communicate the relevancy and usefulness of the new learning to the employees and to make the learning experience more relevant to work practices, all courses are delivered by specialised external bodies. For example, even basic hygiene training which is repeated on a monthly basis is delivered with different content for each department, from housekeeping to kitchen, and delivered by different trainers. Alongside this training curriculum, a high level of individual initiative in training curriculum development is cultivated. Seahorse is the only participant organisation where employees are the ones to decide their training needs and suggest training events to the management. In the case of the cure centre, the physiotherapists search for new training programmes individually and then they apply for funding to participate. All interested physiotherapists are sent for training. The knowledge acquired individually at these events is shared at the unit-level with the help of the *Research Club* OLM described in Section 6.2.2, implying that there are no boundaries dividing the team created by over-specialisation. Although there is no formal structure preventing specialisation, because of their inherent curiosity, everybody wants to learn every slice of knowledge available; and this hinders the formation of compartmentalised knowledge pockets – an aspect of capability circles discussed in Section 5.5.3. Another example that applies cross-departmentally is that organisational members at all levels are encouraged to search for and attend one or two conferences in their area every year. Upon their return, they submit a learning report which is dual-purpose – measuring training effectiveness and transforming individual learning to organisational learning through knowledge sharing; each individual states the learning points from the event, the potential methods and/or developments that the attendee was exposed during the event, and how s/he thinks these can be integrated into Seahorse's organisational practices. The report is presented to the General Manager, including a feasibility study. Many new treatment methods (e.g. musicotherapy), new services (e.g. yoga) and new cooking practices (e.g. steam cooking) have been introduced through these learning reports.

This section takes a critical look at the role of training in relation to organisational learning. As the cases suggest, when individual organisational members acquire new knowledge or learn a new skill, this does not necessarily equate to organisational learning. Popper and Lipshitz (2000) call the former *learning in* and the latter *learning by* the organisation. On the other hand, the discussion on rules and procedures shows

that training can evolve into, or generate, a very productive OLM. As such, it is almost possible to distinguish between low-quality and high-quality learning processes.

6.3.2. Co-creation of Knowledge

As presented in Section 6.2.3, at both Seahorse Hotel and Dolphin Hotel, patient records are reviewed annually. The systems of collecting patient records are quite similar in both organisations. When patients check into the cure centre they go through a medical control, which includes a check-up of their overall health and some body tests relating to their physical diseases (for example flexion measurement of the spine or the degree of dorsal curvature for patients suffering from ankylosing spondylitis), and afterwards the patient receives the 2-3 week-long cure. Before checking out, the same tests are repeated and any improvement in the patient's medical condition is recorded; this is then stored and used as input for treatment statistics. Although the procedure of recording and reviewing seems to be the same at first sight, there are some notable differences in how this OLM is carried out which has implications for the improvement of treatment methods. Table 6.3 summarises the diverging aspects of the annual review process in these firms.

Dolphin Hotel (adopter in high-velocity industry)		Seahorse Hotel (innovator in high-velocity industry)
Check-in /Check-out tests	Data collection	Check-in /Check-out tests
250 Dutch patients		1000-1500 patients from various nationalities
Objective measurement criteria		Objective + Subjective measurement criteria
Medical Superintendant	Review Process	All cure centre medical staff
Report-writing		Dialogue and discussion

Table 6.3. Summary of Review Processes' Features

First, the patient data collection procedures are significantly different. At Seahorse the data feeding into the annual review are much richer when compared to Dolphin. While Dolphin conducts medical check-out controls only on its Dutch patients (around 250), Seahorse conducts medical check-out controls on all its patients (around 5,000), and a sample of 2,000 sets of patient record data are used for year-end statistical analysis. The larger sample size at Seahorse means that more cases are studied and explicated;

this provides richer insights into the diagnosed treatments' effectiveness for a variety of disease groups ranging from the most common inflammatory rheumatic diseases to seldom-encountered orthopaedic and neurological rehabilitation. In turn, studying only Dutch patient data means studying similar cases as most Dutch patients suffer from similar health conditions (namely, inflammatory rheumatic diseases), so this decreases the chance of measuring the treatment effectiveness for different diseases at Dolphin.

Not only the number of patients included for statistical analysis but the amount of information recorded about each patient's medical condition form valuable input to explicate treatment effectiveness in depth. From this perspective, Seahorse is found to be more advanced than Dolphin when the number of criteria used to assess patients' medical conditions are compared. Dolphin uses only objective criteria for assessment, whereas Seahorse adds in subjective measurement instruments to track patients' pain and well-being, namely the 'visual analogue scale' (VAS). More specifically, before, during and after treatment, Seahorse asks each patient to mark the point that they feel represents their perception of their current amount of pain, and how they feel, on a horizontal line 10cm. in length. Then, the doctor or physiotherapists apply pressure to the joint, bone or spine which is being treated to determine the level of correlation between patient perception and the actual condition. This type of data is used to look at improvement in the patient's well-being, and the results attained from some objective measurements are adjusted according to the scale results.

Probably the most significant difference in terms of OLM implementation is the data analysis processes. Annual reviews of patient records are carried out by the participation of all the cure centre medical staff at Seahorse, while at Dolphin the medical superintendent performs the review on his own, without the presence of any other staff. The participative and collaborative nature of how this OLM operates at Seahorse provides the basis for lengthy explication of unsuccessful cases; and it makes it possible to feed insights from staff who participated in the treatment of unsuccessful cases into the evaluation of treatment effectiveness. The Medical Superintendent explains the value of the OLM as follows:

> We believe that if a patient does not benefit from the cure she receives then it is our fault. This is a healthy attitude, even if in reality it may not be true. I mean, this is alternative therapy right? Factually, 100% healing is not possible, even with thermal therapy. There is an infinite number of medical arguments that one can find to rationalise treatment failure. But such an attitude is absolutely not acceptable. If the basic premise is that it was *our* fault, then it follows that we can improve our treatment methods; we can find out how to improve them. The annual review of patient records gives us some room to think about what we did, what went wrong, and how we can alleviate this. In my opinion, that's the key to constant improvement of our services.

As this quote illustrates, there is a difference between learning and coming up with reasonable explanations based on some statistical data as they appear on paper. The divergent practices in the annual reviews at Dolphin and Seahorse suggest that learning occurs when the insights of organisational members enable the organisation to act more effectively in the future.

The medical superintendent at Seahorse pointed out that the outcomes of these reviews are used to revise and modify the treatment plans for each disease group. Discussion generates ideas for improving treatment effectiveness; ideas generate actions to be followed; and in the long run, actions have the potential to generate intended outcomes. And this flow nurtures the potential for exploring new treatment methods or new applications of existing methods. On the contrary, at Dolphin, the strategy of one-way communication from the medical superintendent to management then from the management to the cure centre coordinator, and finally from the cure centre coordinator to the cure centre staff probably leads to the loss of some valuable knowledge which could have been used more effectively in the development of existing methods.

These findings suggest that the scale of actor involvement determines the extent to which the organisation learns as a community. Where this participation is low, knowledge remains located within a narrow circle of organisational members; where it is high, opportunities for learning and renewal are created for the wider organisation. Participation is particularly important because unless the organisational members judge the outcome of the review process to be valid and important, they will not make the necessary effort to change their daily work practices. That is why it is important to involve as many members as possible in the OLM and to let the organisational

members who are directly involved participate in a meaningful way. Apart from the level of participation, other factors such as leadership style, the receptiveness of higher and lower echelons, the plausibility of lessons learned, and the effectiveness of implementation are important to communicate the value of this OLM to the remaining organisational members.

6.3.3. Valuation of Knowledge

Rules and forms for the quality certification OLM are very standardised by the nature of ISO requirements, but the conventions of applying those rules and filling out the forms are a good example showing how the valuation of knowledge can affect OLMs' potential to generate knowledge and innovation.

Crystal Oil does not have ISO certification because it is not a key success factor in the olive-oil industry. Yet **Gold Oil,** which is in the same industry, has gone through the process of being certified for ISO 9001 and ISO 22000. These ISOs are not directly related to competitiveness, because their regulative framework and demand conditions do not require Dolphin to be certified; but Gold values the ISOs not as mere certificates but within the entirety of all the learning opportunities it creates. Gold got its ISO 9001 certification in 2003 and ISO 22000 in 2007, the latter being more about food safety and hygiene than the quality of the product. After getting ISO 22000 they dropped ISO 9001 in 2008, because they said they now have a system in place for quality assurance. After having established their quality management system (QMS) based on ISO 9001, they developed routines for applying and internalising it; after five years of application they then moved on to another certificate that concentrates on other aspects of the production process. In the words of the Quality Manager, "When you stop seeing QMS as a bureaucratic sufferance you can gain many positive and desirable things from it for your organisational development and improvement." I think this quote showcases the importance of reframing an OLM in order to augment its potential for learning and innovation.

Cure Centres are motivated to sign agreements with foreign countries' health ministries in order to guarantee a certain inflow of patients in off-season periods. In order to be able to sign these agreements they need to be certified by EUROPESPA-

med. One eligibility criterion for EUROPESPA-med is to have a suitable QMS in place. Thus, a QMS is required to increase competitive performance in this industry. That is the major reason for **Dolphin Hotel**'s application for ISO 9001 certification. At Dolphin, it is clearly seen that ISO certification is perfunctory and characterised by superficiality, as its application is far from the underpinning philosophy of ISO. Except for the kitchen area, which is strictly monitored and controlled according to HACCP criteria, in none of the remaining departments is quality management practised systematically. When asked about how they go through the audits, the Quality Specialist answered:

> Turkish people do not like writing, you know. This proved to be a difficulty for us in ISO implementation. Anyway, I do all the writing; I fill in the required documentation. Departmental supervisors tell me their work routines and I fill in the relevant forms and charts. Only the kitchen area writes their measurements in real-time. *(Quality Specialist)*

While at Dolphin the documentation is completed by the Quality Specialist retrospectively, based on the input provided from the departmental supervisors, if ISO principles were to be applied truthfully, then the employees should be recording every work practice as they perform them on the relevant forms. Because the forms are filled in retrospectively, any developments in service quality are done in a reactive way. In an ideal situation the existence of ISO should be helping the company to avoid any quality-related problems by reviewing and reflecting on past and current performance; but at Dolphin development occur only after a problem has arisen and been detected, because the forms that could have flagged up a problem in real-time do not exist. When asked about the reasons for these 'shortcuts', the General Manager said:

> We explained to the company granting us the ISO certification that this business cannot be run with so much paperwork. If we do all this we cannot possibly serve the customers. We need to modify it.

Because the manager values serving the customer and solving problems in the short-run over investing in development of a learning repertoire and preventing problems in the long-run, ISO is perceived as pure bureaucracy which has a stagnating effect on organisational work, so clearly the learning part of it has eluded him. Although it is true that QMS injects a lot of bureaucracy and documentation into organisational

practices, it can in turn become an important learning opportunity as the Seahorse Hotel case evidences.

The General Manager of **Seahorse Hotel** also does not believe in the appropriateness of ISO for the tourism industry. But while Dolphin chose to modify and implement it in their own way, Seahorse built a unique QMS that was developed to prioritise speed, quality of service and customer-focus. The development team first pooled the quality standards and forms stipulated by different QMSs and then parts of those standards were adopted according to their congruency with the dynamics of the business at Seahorse. Although this approach can be criticised for being eclectic, it does allow Seahorse to exploit extant QMSs and then to explore new ways of adapting them for their business context. To make this point explicit, let us consider the application of the Seahorse QM in the kitchen area. In order to fulfil the requirements of ISO, HACCP and EUROPESPA-med in the kitchen area, staff need to fill out seven different forms. Yet, given the busyness of staff in the kitchen area and their level of education, expecting them to fill out the forms in a proper way is very unrealistic. The Quality Specialist worked in the kitchen for about two months, observed the work routines and the staff's attitudes toward the forms, and talked with the staff about the problem and how it could be solved. Consequently, working with the staff, they adapted the forms together in a way that would meet the standards requested when done properly and, at the same time, be easier to complete by the employees. Currently, there is only one form attached to the work station of each staff member, and this includes only items relevant to their job.

Quality certification is a key success factor in the automotive components industry, because automotive manufacturers do not work with suppliers that do not have appropriate certificates. Out of all six research participants, **Suspension Automotive** is the company that has the most certificates. The company currently has the ISO 9001, ISO 9002, ISO 19646, Q1 and 5S quality management systems (QMSs) and was in the process of obtaining ISO 14001 in 2008. Rules are closely followed and all forms are filled in carefully because they have to go through intense audits by their big customers, such as Ford and Mitsubishi. But the empirical evidence suggests that Suspension does not embrace the dynamism and change that QMS can inject. ISO and all other quality management systems are perceived as a "statutory obligation" as the

Quality Manager frames it; big customers look for them in their company audits, and for this reason these systems have to be implemented "seamlessly". The idea driving QMS adoption at Suspension is to attract and please customers. All these different QMS are adopted in order to sign deals with sought-for customers. Such an aim has at least two consequences when operating QMS OLMs. First, it creates problems in operating QMS applications. Because the focus is not on internalising a particular QMS but on applying it well enough to attract new customers and keep existing ones, the employees and management are not very interested in learning and reflecting on QMS principles and practices; mostly they do whatever is required mechanistically. This attitude leads to the second consequence; because the management and employees do not seize the learning opportunities arising from using various QMSs on a day-to-day basis, most of the time Suspension ends up learning from its failures. The weekly quality meetings that are held to evaluate important quality issues that have arisen during the previous week finish up by generating several quick fixes rather than pondering on a permanent solution to prevent a given problem reoccurring. The organisational members at Suspension are interested in moving forwards, rather than reflecting on how to benefit more from the different QMSs.

But not all organisations perceive ISO and other QMSs as another tick on their customers' evaluation forms. **Accelerator Automotive** operates in the same industry as Suspension and works with almost every automotive manufacturer that Suspension supplies. But while Suspension claims that a company has to have 5S to work with Mitsubishi, Accelerator is another supplier to Mitsubishi even though it does not have 5S certification. This suggests that if you can meet the quality expectations of customers with your existing QMS, then the customer will not insist on any specific quality certificate. The important thing is to ensure continuous organisational improvement with the existing QMS. Accelerator perceives quality certification as a means of increasing and expanding their technological capabilities and making the organisation more professional. For example, the Quality Manager stated that:

> We have had ISO 9001 since 1998. Last year we got ISO 16949. We haven't adopted it because of customer coercion. We wanted it. Why? Because we wanted to open ourselves to improvement, 16000 is the latest quality system. We wanted to get the latest system and to keep abreast of it. You may call it a quality policy but we really want to use it as the next level of development in terms of quality and customer-centredness.

What is deemed relevant and important by senior management and their motivations and expectations while designing and operating an OLM are important factors in ensuring productive organisational learning. In the case of the tourism industry, even though the two general managers share the same thoughts about the applicability of ISO in the tourism context, as a result of their ideals and business priorities they developed different strategies to deal with it. Similarly, although in the olive-oil industry QMS is not a key success factor and is not critical for competitive advantage (as evidenced by Crystal's competitive position in the industry for over 75 years), Gold Oil adopts and systematically implements QMSs because such knowledge is valued endogenously for organisational development. As different QMS application in the six organisations show, apart from the exogenous valuation of knowledge as determined by industry expectations, endogenous value seems to matter more. Figure 6.1 provides a snapshot of the firms positioned according to these two dimensions.

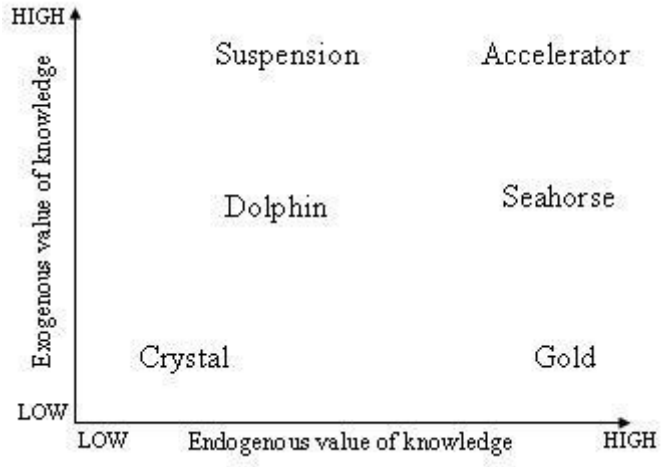

Figure 6.1. Valuation of Quality Certificates

The positioning of the organisations in Figure 6.1 may surprise the reader, as the exogenous valuation of knowledge is lower in the tourism industry when compared to the automotive components industry, although the former is more dynamic than the latter. It is deemed important to note, at this point, that this positioning is a result of the particular OLM that is analysed in this example. Although the tourism industry is highly dynamic, quality certification is not as vital as it is in the automotive industry. As noted above, in the automotive industry, even the organisation that is most resistant to change has to have ISO or other relevant certification if it wants to sell its

products to automotive manufacturers. In this respect, it is almost obligatory to be certified and thus the exogenous value of this particular knowledge is highest. However, in the tourism industry, proof of quality can be a point of differentiation for hotels having certain quality certificates, though customers are not particularly sensitive to the existence of certain quality certifications. In this sense, quality certificates' exogenous value is lower when compared to the automotive components industry since accreditation is more discretionary than obligatory. If another case other than the quality of certification was taken, such as the application of enterprise resource planning systems, then the position of the firms on the vertical axis might have been different. The important point is that all innovator firms are positioned on the left-hand side of the graph, suggesting that endogenous valuation of knowledge is higher in those firms when compared with adapter firms.

6.4. Conclusion

Organisational learning mechanisms (OLMs) can be considered a learning strategy (Beer et al., 2005) that the organisation implements to develop its capabilities in order to survive and thrive within external environments having varying degrees of change. This strategy needs to be formalised in the shape of various learning mechanisms as a first step towards guaranteeing learning. But listing OLMs throughout Section 6.2 and trying to associate the quantity of mechanisms operated with levels of capability has revealed two things. First, we have seen how industry dynamism mediates the relationship between OLMs and the organisational capabilities developed through them. Gold Oil, which has very few OLMs, has been able to develop, internally, the most complex type of organisational capabilities, namely generative capabilities; this is because the degree of new knowledge creation and technology generation is not as great as in a more dynamic industry. This suggests that a firm in a slowly-evolving industry is able to acquire and disseminate all relevant knowledge through relatively few OLMs. But this correlation between the quantity of OLMs and the environmental rate of change is not enough to explain why Dolphin has a variety of OLMs but is still operating at the adaptive capabilities level. Cross-company and cross-industry comparisons imply that while the existence of various mechanisms is an important source of learning, studying under which conditions and in what environments these

mechanisms work best is also important. Not having any structured OLMs (e.g. a training programme) almost guarantees no increase in organisational learning. But the mere existence of OLMs does not guarantee beneficial learning outcomes in term of increased competitiveness and organisational renewal or improved organisational capabilities.

The discussion throughout Section 6.3 reveals that the internal structure of an OLM carries the potential to appreciate divergence among the constituent parts of that OLM. It is seen that, in order to improve current practices and explore new ones, management has to provide the base for participative and reflexive OLMs. While traditional and standardised OLMs generally generate weekly, monthly and yearly reviews of performance and management planning, the same OLMs can become distinctively more dynamic and generative, as in the case of innovator organisations. The actions generated by these OLMs end up being more adaptive and less automated as they originate from specific needs and contexts of the organisation. The key attribute of these participative OLMs is that they provide semi-structures so that organisational members can focus their attention on their individual capability development needs and make sense of their individual learning experiences by focusing on the implications for organisational development and learning; meanwhile the management can still control these mechanisms so that the mechanisms constituting the learning strategy of the organisation will exhibit some coherence. As such, despite the substantial number of OLMs in operation at Dolphin, partially due to the procedural and social arrangements and partially due to the high degree of dynamism in the tourism industry, Dolphin still has adaptive capabilities and is engaged in single-loop learning while Accelerator Automotive with fewer OLMs is switching from adaptive capabilities to generative capabilities, thus evidencing the beginning of double-loop learning activities.

In describing the ways OLMs are designed and implemented, this work has identified three central factors: rules and procedures, the co-creation of knowledge and the valuation of knowledge by senior management. Looking at the specific ways in which OLMs are constructed takes us further towards understanding under which conditions and in what environments OLMs produce higher levels of learning. This link between OLMs and procedural and social arrangements suggests that when the structural and

cultural contexts in which OLMs are embedded are changed, the learning outcomes will also change. Such an approach provides sharper insights into the genesis and consequences of learning processes with appropriate empirical support. In addition, on a broader theoretical level, I reject the deterministic approach to organisational capability as the final outcome of a single set of OLMs. In terms of organisational capabilities, it raises the question of how to manage OLMs to create more dynamic and generative organisational capabilities. While certain individual capabilities such as technical and professional skills emerge from combining OLMs, the organisational learning outcome attached to a particular OLM does not result from, but is rather an element of the context related to the governance and values embedded in it.

In this chapter I have chosen primarily to focus on the structural and social aspects of learning, rather than on underlying assumptions and interpretations, because these elements are more easily observable and can thus provide a framework that can guide managerial action. In focusing on these three elements, I am not claiming to have discovered some ultimate truth about organisational learning. There may be other aspects that I have overlooked. However, I believe that these three elements present a useful set with which to begin to analyse the particular context in which organisational learning is to be initiated, or improved. My aim is not to develop an exhaustive model but rather a conceptual framework that strikes a balance between exhaustiveness and parsimony – a useful framework that would provide organisations with clear targets to aim for when establishing and managing OLMs. The three driving elements do not ensure the success of organisational learning, but they do play a mediating role in predicting the way in which OLMs enable the targeting of outcomes. The data do not suggest any evidence *per se*, it may even be the case that the non-existence of these elements does not even preclude the feasibility of organisational learning, but their absence will certainly make success difficult and will probably require different norms or different OLM design to overcome this difficulty created.

CHAPTER 7
DISCUSSION AND CONCLUSIONS

7.1. Introduction

The last chapter is an appropriate place to look back on my track. Why did I start this adventure and what I have encountered during my exploration? The study has focused on a range of firms between low- and high-tech in both service and manufacturing industries, six Turkish medium-sized companies from three different industries in a matched-sample setting. The underlying notion was that innovators would differ from adapters with respect to capabilities and learning processes. The ultimate aim was to advance the extant literature a step, and indeed to contribute to a theory which endeavours to bridge the gap between the capabilities framework and the organisational learning literature. The difficulty of conducting a qualitative investigation in medium-sized companies as a PhD student made it necessary continually to find pragmatic solutions to unforeseen problems as I proceeded with data gathering and analysis. This meant that compromises had to be made between the desirable and the feasible. In this respect, this study, to borrow Donald Schön's swamp metaphor, resembles more of a voyage of discovery in the swampy lands than the risk-free survey of familiar terrain.

As was argued in the first two chapters, there is already a vast amount of knowledge available on capability development and organisational learning. But the current study differs from most other on three levels:

- It calls for an eclipse of the organisation-environment dichotomy in the study of organisational capabilities. As such, it rules out the inherent assumption that an objective environment does exist and offers an enactment perspective to study capability development for sustained competitive advantage.
- It is a non-sector specific study and it includes not-so-dynamic traditional industries alongside more dynamic industries with the aim of scrutinising the applicability of the dynamic capability framework to various organisational scenarios.

- In order to understand how capabilities are developed, this study integrates the organisational learning literature with the organisational capabilities field. In so doing, it integrates the acquisitionist and participationist approaches to the study of organisational learning. As such, it argues that both cognitive and social dimensions are important and indispensible and studies structural and contextual facets contributing to learning.

This chapter starts with a summary of the main findings of this study. In terms of structure, it will start by summarising two distinctive mindsets for learning, *learning to innovate* and *innovating to learn*. Next, in Sections 7.3 and 7.4, I present new insights that have emerged from the study. I conclude the chapter with a reflection on the methodology used and the practical implications of this study as well as issues for future research that stem from my findings.

7.2. Learning to Innovate and Innovating to Learn: two mindsets for learning and capability development

As the preliminary analysis in Chapter 4 has demonstrated, the six cases exhibit a number of similarities and differences. The chapter has revealed that Gold Oil, Accelerator Automotive and Seahorse Hotel have similar penetrative relationships towards the environment, an aspirational approach towards learning new knowledge and, to some degree, employ similar practices for organisational change and capability development. There are certain differences between the two, but they carry little significance for the implications. At the same time, Crystal Oil, Suspension Automotive and Dolphin Hotel also demonstrate a number of comparable elements. Firstly, their interest in external knowledge is rather limited and problem driven. Secondly, even though their structures are somewhat different, the effects that they have on organisational learning and capability development are very much alike. Thirdly, their approaches to the external environment and their attitudes towards innovation and new knowledge reveal that they both hold a modest relationship to change.

On the whole, by looking at the data retrospectively, what comes to the surface is that within the pairs, organisations exhibit similarities in their relationship towards the environment, their learning orientation and their knowledge acquisition practices. As a result, the attitudes and practices of the six cases are combined into *learning to innovate* and *innovating to learn* mindsets.

In this way, organisations with a *learning to innovate* mindset are more reserved in their engagement with the external environment. Their attitude towards innovation and change is cautious but not necessarily antagonistic. They engage with new knowledge when internal capabilities seem no longer to deliver and usually exercise rather precise and targeted knowledge acquisition. When these organisations venture outside, they clearly understand what they are after, and exhibit either a coercive or focused learning approach. Alternatively, organisations with an *innovating to learn mindset* reveal an open and curiosity-driven relationship with the external environment, as well as a welcoming and aspirational approach towards change. These organisations are comfortable in dealing with uncertainty and turbulence. They are explorers, intrinsically motivated to continuously improve and renew their organisational practices; and their approach towards new knowledge and learning reinforces that.

In addition, concerning the human resource aspect, the two learning mindsets display different strategies and practices. According to Alvesson (2004), organisations develop human resource management strategies and practices that are rooted in either *human capital* or *human process.* While a human capital system relies on the individual capabilities and inputs of certain organisational members, a human process system accentuates social and communal aspects of organisational life by prioritising relationship-building and continuous communication between organisational members. The emphasis on either principal way does not negate the existence of the other, but each of them calls for significantly different strategies and practices. The empirical evidence already discussed thoroughly in this thesis reveals that a *learning to innovate* mindset is inclined to prioritise *human capital* while an *innovating to learn* mindset manifests a *human processes* system. Especially, the capability circles discussion in Chapter 5 vividly illustrates that at Crystal Oil, Suspension Automotive and Dolphin Hotel, certain individuals with expert knowledge hold hierarchical power

as well. These professional authorised experts in whom the relevant knowledge is embodied act as key brokers of organisational knowledge. The organisational knowledge almost embodies itself as an individual property within these organisations. In this sense, organisational capabilities are individually packaged and learning processes and capability processes are driven by the actions and decisions of these key individuals. On the other hand, organisations manifesting a *innovating to learn* mindset, such as Gold Oil, Accelerator Automotive and Seahorse Hotel's human resource strategies and practices, are rooted in *human processes.* They are also interested in recruiting and retaining qualified personnel though the individual agents are not only cognisant and thoughtful but also active and participative in organisational processes. The role of the individual agent is also acknowledged in this mindset, but in a different way. The distinctive feature of *human process* systems is that organisational knowledge is a social property; the knowledge acquired by different agents does not remain in individual domains. Knowledge no longer resides in repositories, such as individuals or the organisational structure (Argote and Ingram, 2000), rather it arises through the interaction of the individuals and the interconnectedness of processes. In line with the transient nature of organisational knowledge independent from individual domains, *human process* systems hold dynamic sets of prior knowledge and experience; at any minute, these can be reconfigured into new capabilities to cater for various existing and emergent organisational learning and knowledge tasks should the need arise. Here my work joins the existing debates surrounding the role of individual agency and expands on the work of Jones (2006) by eliciting action and participation as central properties of learning and capability development. It suggests shifting the perception of individual agency from role-driven characteristics towards the participation patterns and interaction of individual agents.

In my opinion, considering these analytical similarities furthers the possibility for more rigorous and in-depth understanding of the data. The mindsets strengthen the explanatory power of my findings by filtering them in a more coherent conceptual form. They help to highlight the differences in the ways organisations deal with external change and capability renewal and, as a result, contribute to the holistic understanding of the antecedents and processes for learning-oriented organisational capabilities. It appears that *learning to innovate* and *innovating to learn* mindsets

differ both in their knowledge orientations and in the organisational design that translates their orientations into learning activities. As such, the knowledge-oriented *innovating to learn* mindset establishes continuous and ongoing learning by empowering and engaging with individual agents of the organisation. This aspirational approach towards learning and capability development results in *generative capabilities.* In contrast, the problem-oriented *learning to innovate* mindset is characterised by undistributed knowledge and regulated capability development for defensive purposes. This ad-hoc and focused approach towards capability development results either in *operational* or *adaptive capabilities,* depending on how stable the environment is perceived to be by management. Many scholars would criticise organisations with this mindset for their undistributed knowledge (Gherardi, 1999; Orlikowski, 2002; Cook and Brown, 1999), formal structures (Tsai, 2002) and modest relationship to change (Todorova and Durisin, 2006). Nevertheless, the empirical evidence demonstrates that these organisations are also quite well equipped to facilitate the acquisition, appropriation and integration of new knowledge. Thus, regardless of the prescriptive labels that some theorists have attached to these organisations, a coping-oriented learning approach organised around individuals holding expert knowledge seems to deliver positive results for competitive advantage. Table 7.1 provides an integrative framework outlining how the antecedents and processes discussed throughout the thesis are connected to organisational capabilities.

7.3. Theoretical Contributions

7.3.1. Towards an Enactment Perspective of Organisational Capabilities

This thesis has looked critically at the concept of organisational capabilities and argued that existing contributions are limited by their lens of theorising. I have argued for an alternative perspective to examine holistically the nature and process of capability development. For the purpose of investigating the nature of capabilities, this research has relied on the enactment perspective to make sense of the complex and interdependent relationship between the external environment, managerial perceptions and organisational capabilities. Adopting an enactment perspective enables us to enhance our understanding of the concept of organisational capabilities.

	DIMENSION	LEARNING TO INNOVATE	INNOVATING TO LEARN
ANTECEDENTS	**Assumption about the Environment**	- Environment is given, static and simple. - Environmental events are viewed as threats, the focus is on adaptation	- Environment is transient, dynamic and turbulent. - Environment is viewed full of exciting opportunities, the focus is on active penetration
	Fundamental Attitude to Innovation and Change	- Coping	- Learning
	Approach towards Learning and Knowledge Acquisition	- Defensive - Exogenous triggers and external shocks	- Aspirational - Internal endogenous factors
	Human Resource Management Strategies	- Human capital systems - Expert-based learning, dominated by skilled staff	- Human process systems - Participative learning, egalitarian
	The *'motto'* of capability development	"Do we really need to do this? We <u>need</u> to do this because other firms are doing it!" "Did we do it right?"	"<u>We</u> want to do this! We want to open ourselves to improvement." "Did we learn to do it and what else can we do to help us succeed?"
	RESULTING ORGANISATIONAL CAPABILITY	-Operational capability -Adaptive capability	- Generative capability
PROCESSES	**Capability Development Approach**	- Capability Buying - Learning *in* the organisation	- Internal Capability Building - Learning *by* the organisation
	Organisational Learning Mechanisms	- Lower variety of training events - Standardised training curriculum - Low agency participation in OLMs - OLMs dominated by narrow exclusive circle of experts - Low endogenous valuation of knowledge (mainly exogenous)	- Higher variety of training events - Training curriculum tailored to departmental/individual needs - High agency participation in OLMs - Co-creation of knowledge - High endogenous valuation of knowledge

Table 7.1. Learning Mindsets, Organisational Capability and Learning Mechanisms

First, the thesis argues that capability development is not only subject to objective environmental dynamism, as Eisenhardt and Martin (2000) and Zollo and Winter (2002) suggest. Environmental dynamism acts as a contingency factor, but not in a mechanistic way; management's perception of stability or dynamism in the environment, its knowledge orientation and attitude towards change and learning enact a distinctive set of organisational capabilities. Considering the impact of assumptions about the environment, organisational knowledge orientation and the approach to learning, I propose that capabilities could be decomposed to three distinct levels: operational capabilities, adaptive capabilities and generative capabilities. As argued in Chapter 5, operational capabilities are likely to be applied when managers perceive substantial stability in the environment of the organisation, characterised by a *learning to innovate* mindset. In sharp contrast, managers prioritise the development of generative capabilities when they perceive high levels of dynamism in their environment and exhibit a positive attitude towards learning and new knowledge in line with an *innovating to learn* mindset. In line with the existing literature, Eisenhardt and Martin's (2000) and Ambrosini et al.'s (2009) statements of these hierarchical levels of capabilities (Ambrosini et al., 2009) are characterised by equifinality (Eisenhardt and Martin, 2000) and consequentiality (Brown and Eisenhardt, 1997). While the extant capability literature implicitly assumes that dynamic capabilities exist firm-wide and operate across the firm in all of its functions, this thesis provides empirical evidence showing that although there is a dominant capability level which the organisation mainly invests in, it possesses a diversity of capabilities at other levels, alongside that dominant capability level. As such, adaptive and generative capabilities can operate within one organisation and they can even co-exist just within one function.

Empirical evidence suggests that organisational capabilities are hierarchically ordered, operational capabilities being lower-level and generative capabilities being higher-level. This hierarchical model of capabilities exhibits a property termed "sequenced steps" by Brown and Eisenhardt (1997), meaning that a firm can only aim to develop higher-level capabilities on condition that it has already built lower-level capabilities after an initial period. "Equifinality" is the principle that different initial states can lead to the same end state, which can be reached by various potential means. That is to say, firms that develop an effective organisational capability begin the development of

that capability from different starting points, and take unique paths. Yet, since they end up with capabilities that are similar in terms of key attributes, then there are multiple paths to the same organisational capability (Eisenhardt and Martin, 2000). Extending Eisenhardt and Martin's (2000) application of the principle of equifinality to the realm of organisational capability, here it is revealed that different levels of capabilities can be equally effective in maintaining competitive advantage. In other words, not only can the same organisational capability be reached by many processes, but different organisational capabilities can also lead to similar competitive performance. Contrary to the argument of Teece (2007), I suggest that there are multiple organisational capabilities that can yield successful competitive performance over prolonged periods. Teece (2007: 1345) argues that "absent a broader overarching set of dynamic capabilities, a firm that is merely competent in operations will fail", but the case of Crystal Oil vividly shows that organisations can remain competitive through building operational capabilities only. And the fact that Crystal's pair in the olive-oil industry, Gold Oil, is committed to building generative capabilities casts strong doubts on the validity of the ideas of organisation-environment alignment and environmental adaptation, which are advocated by organisation theorists.

Secondly, the range of capabilities chosen to be developed by managers facing the same external environment builds up the case for the idea of envelopment to replace the idea of alignment. Figure 7.1 juxtaposes the idea of envelopment with traditional conceptualisations of the relationship between the environment and the organisation. As Figure 7.1(a) suggests, the resource-based view of the firm has a static representation of the external environment and, as discussed in Section 2.2.2.1, by focusing on firm resources it assumes that there is no friction in the external environment. As a result, RBV does not address the interaction between external dynamism and internal firm dynamism. On the other hand, the dynamic capabilities perspective acknowledges external environmental forces and their interaction with the internal organisational factor, and it argues that there is a linear representation between the two. As such, firms need to align internal capabilities with external forces if they want to survive and maintain competitive advantage; organisational capability is viewed as a means of adaptation to the environment. The majority of the literature portrays organisations as passive learners who attempt to gain greater control over the external world with the help of new knowledge. Thus, internal firm dynamism has to

match external firm dynamism and, as Figure 7.1(a) suggests, this conceptualisation suggests a one-to-one linear representation of the environment-organisation relationship. However, having an enactment perspective at the core of social theorising routines redefines the organisation's relationship with the environment. Figure 7.1(b) graphically illustrates the central tenet of the idea of envelopment and proposes that, for a given level of environmental dynamism, there is an envelope of firm dynamism that is allowed for survival. The range of organisational capabilities discussed throughout this thesis suggests that within a particular industry there is a range of strategic postures that will lead to success. As such, if environmental dynamism is low, then firm dynamism can range between low to high, while in a moderately dynamic industry, firm dynamism can range between medium to high. And firms that choose to be highly dynamic in a slowly-evolving industry can be equally successful as firms that choose to purport low-level dynamism in the same industry.

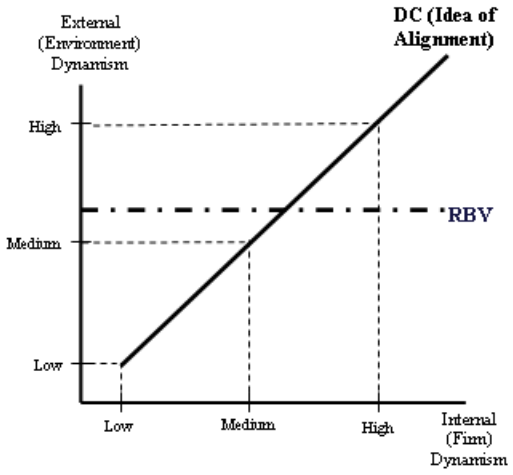

Figure 7.1(a). Organisation-Environment Relation between RBV and the Dynamic Capability Perspective: the idea of alignment

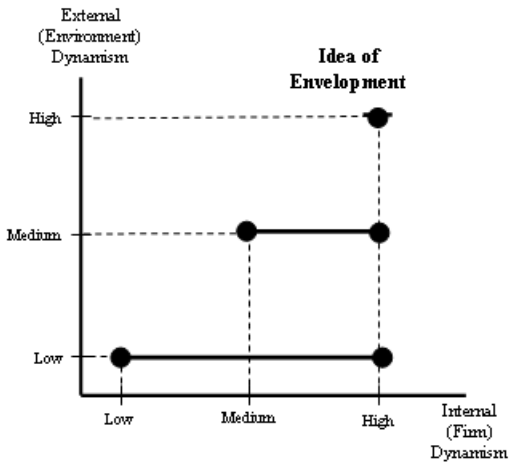

Figure 7.1(b). Alternative Conceptualisation of the Organisation-Environment Relationship: the idea of envelopment

The contrasts between Crsytal and Gold, Dolphin and Seahorse, evidence that it is possible to have varying levels of firm dynamism, leading to varying capability levels, within the same external environment and still be able to maintain competitive advantage. These organisations have differing assumptions for the same market, and this results in firms taking contrasting strategic postures and doing differing things to supposedly 'align' themselves with the environment. If the idea of alignment were

valid, then firms that insisted on investing in adaptive capabilities in a high-velocity industry would be doomed to failure. However, the case of Dolphin shows that adaptive behaviour is acceptable within the tourism industry – which is classified as a high-velocity industry. Similarly, the proactive posture and aspirational approach of Gold Oil, which operates in a slowly-evolving industry, demonstrates that firms can choose to explore new opportunities and dedicate themselves to continuous improvement and knowledge creation without necessarily aiming for organisation-environment fit. This finding provides empirical support for Newey and Zahra's (2009) argument that investment in and the alteration of organisational capabilities can be driven by internal endogenous entrepreneurship as well, which seems to matter as much as exogenous shocks. This viewpoint is largely ignored in the literature (Newey and Zahra, 2009), but this thesis brings this view to the fore again and offers a deeper conceptualisation of the phenomenon by introducing the idea of envelopment. Specifically, it is found that operational and adaptive capabilities are often driven by external factors that necessitate the adoption of specific technologies and processes; however generative capabilities involve firm initiatives that are based on managerial discretion, a desire to change and the interpretation of wider environmental issues as opportunities rather than threats. At this point it is important to remember that the range of alternative strategic postures offered by the idea of envelopment should not be taken to extremes. Some degree of heterogeneity among competitors within a given industry is allowed; because the individual qualities of firms regarding their dynamism and capabilities are also associated with fittingness, then there is some sort of lower limit, in terms of capability level, in every industry that organisations should not go below if they do want to survive. Put simply, the width of the envelope available to management correlates with the 'objective' environmental dynamism which is enacted by the cumulative actions of other firms in the same industry. In other words, Crystal Oil has been able to sustain its competitive advantage by investing in operational capabilities only because the industry in which it operates is a slowly-evolving industry, meaning that all major firms in the industry perceive low environmental dynamism. On the other hand, because many hotels in the thermal tourism industry perceive a dynamic and turbulent environment, and thus focus on organisational development in order to penetrate this high-velocity industry, the envelope for this industry is not as wide as the envelope for the olive-oil industry; this implies that investing in operational capabilities will not lead to competitive success

and that the possibility of survival over a prolonged period is questionable. In other words, the idea of envelopment suggests that there is some variance between leading players in the industry in terms of lethargy and dynamism, but there is also a limit to lethargy as stipulated by the 'objective' rate of change in a particular industry. It can be argued that there might be a limit to dynamism as well, but the data collected from the six firms do not provide any empirical support for this proposition.

Thirdly, the thesis builds up the case for the process of capability development and argues that there is a patterned relation between the level of the capability to be developed and the approach to develop it. As such, while operational and adaptive capabilities can be *bought in*, generative capabilities should be *built* from within. The cases of Crystal Oil, Suspension Auto, Dolphin Hotel and, to some extent, Accelerator Auto reveal that competitively effective organisational capabilities do not have to be developed internally; hiring new personnel can help the organisation to acquire certain capabilities. The capability-buying option, which seems to prove useful when the empirical evidence is considered, is a possibility largely overlooked in the literature (Ambrosini et al., 2009).

In order to appreciate better the patterns evident in the capability development process, the concept of capability circles was introduced in Section 5.5. The capability circle is a type of organisational grouping, which differs from the community of practice (Wenger and Synder, 2000); it refers to a group of organisational members who usually belong to the same department and whom are brought together by the management to build a specific capability. As such, a capability circle can be differentiated from a community of practice, which denotes a non-canonical, organic and organisational grouping formed as the result of a shared intrinsic desire to exchange knowledge and improve practice. The strength of the notion of the capability circle, in relation to the community of practice, is that it also applies to organisational groupings in industrial settings with highly-structured workflows – something that is not accounted for by the current conceptualisation of the community of practice.

Operational capabilities are bought single-handedly with a fire-fighting mentality in order to meet the immediate needs of the company. As a result, no capability circles

were observed at Crystal, which is not a surprising finding since operational capabilities are associated with zero organisational learning and thus all learning takes place at an individual level. The capability circle concept comes in as a handy construct, especially when differentiating between capability development processes across organisations investing in adaptive capabilities and those investing in generative capabilities. The capability circles formed in organisations with an *innovating to learn* mindset, such as Gold Oil and Seahorse Hotel, have more resemblance to communities of practice with their participative design based on expertise power, irrespective of members' hierarchical level or position in the organisation. They emerge in a much more dynamic and flexible way, and the membership and leadership have a transient nature. They are concerned more with knowledge accumulation and implementation than its mere appropriation. They are still canonical organisational forms, established and controlled by the management, but the daily operations of the capability circle in these organisations show some self-organising features. In contrast, the *learning to innovate* mindset which is closely associated with operational and adaptive capabilities is interested in 'experience accumulation'. In turn, adaptive capabilities are developed via capability circles, which are dominated by specialists who are hired by the management due to their supposedly expert knowledge and who hold hierarchical power and exercise episodic power. Contrasting with the flexible and participative capability circles used in generative capability development, these capability circles mainly rely on formal structures, regulated communication and supervisory control. The process of capability development is mostly based on formal channels of communication and subordination, with very little negotiation.

Finally, the thesis suggests that when supported by proper capability development processes, it is possible for firms to alter their capability level. The case of Accelerator Automotive, as discussed in Chapter 5, provides empirical support for the argument that organisations are not 'locked in' at any particular capability level; it is possible to move upwards (or downwards) in the capability triad. The pressure or desire to alter capabilities can be caused by exogenous shocks, as well as being driven by endogenous triggers. Sometimes, it is a change agent who was originally hired for adaptive reasons that 'crosses the line' and convinces management to invest in generative capabilities. For example, Accelerator's foundry manager, Allan, was

originally hired to solve some immediate production problems but, since then, as a result of Allan's intrinsic motivation and endogenous entrepreneurship, Accelerator has shown increased inclination to engage in research and development activities. Certainly, capability alteration requires more than designing participative capability circles; all the dimensions which are summarised in Table 7.1, which form the basis of a firm's learning environment which is used to mediate capability development, should be intentionally modified and managed.

Unfortunately, the theoretical lens borrowed from the capabilities literature remains inadequate for understanding how capabilities are developed and evolved through learning. By following the recent suggestions of scholars such as Winter (2003) and Easterby-Smith et al. (2009), the thesis has adopted a *micro* perspective towards capability development processes by considering the role of organisational learning mechanisms. I turn next to the issue of how integrating debates from the organisational learning field to the study of organisational capabilities has enriched the findings of this research.

7.3.2. Capability Development and Organisational Learning Mechanisms

Moliterno and Wiersema (2007) call for a better understanding of both the content and process of organisational capabilities. Chapter 5 dealt with the nature and content of organisational capabilities, and the previous section detailed the main findings of this exploration. In investigating the underlying process of organisational capabilities, this thesis has focused on the capability development process and, as such, has integrated organisational learning perspective into capability research, in line with the recent suggestions of scholars working in the field of organisational capabilities (Ambrosini et al., 2009; Easterby-Smith et al., 2009; Teece, 2011; Zollo and Verona, 2011). As suggested by recent literature, organisational learning plays a significant role in the creation and evolution of capabilities.

In order to investigate the capability development processes in participant organisations, the thesis has applied the concept of *organisational learning mechanisms*. The importance of OLMs is also acknowledged in the capabilities literature, with scholars suggesting that learning mechanisms are responsible for the

modification and evolution of operating routines and operational activities of the firm (Zollo and Winter, 2002); as such, "learning mechanisms guide the evolution of dynamic capabilities" (Eisenhardt and Martin, 2000: 1114). Despite its recognised importance, the notion has not been well-framed or well-defined in existing studies. For instance, Eisenhardt and Martin (2000) mention events such as repeated practice and mistake, processes such as the codification of experience and qualities such as the pacing of experience under the umbrella of learning mechanisms. Such a vague conceptualisation of the notion does not elucidate which specific mechanisms are involved in the creation and evolution of capabilities. Zollo and Winter's (2002) work is more specific in detailing how learning mechanisms are related to capability development. They specify three learning mechanisms – experience accumulation, knowledge articulation and knowledge codification – which are sequentially-stepped, meaning that knowledge in the latter mechanisms is more complex than in the former ones, and that a higher level of effort is needed to operate the latter ones. However, Zollo and Winter's (2002) discussion raises two issues: First, sequentially-stepping learning mechanisms, from simple to complex, suggests that knowledge codification represents better or more extensive learning when compared to less complex mechanisms. Second, even though their work significantly clarifies the relationship between learning and capabilities, it does not clarify the exact structure of the phenomena through which capabilities are created and modified. It does not tell much about how capabilities come out of these learning-related constructs. Moreover, they only look into the cognitive and behavioural aspects, leaving the social and participative facets of learning unexplored. Finally, as they admit, "the existing empirical base is thin" and, as such, is aimed at "provid[ing] guidance for future empirical inquiry"(Zollo and Winter, 2002: 350).

This thesis not only provides empirical support for the conceptualisation of learning mechanisms but also addresses the social and cultural contexts within which they take place. This requires me, on a theoretical basis, to bridge the two theoretical perspectives that dominate the organisational learning field, namely the *acquisition metaphor* and the *participation metaphor*. While the *acquisitionist* theorists focus on the cognitive dimension of organisational learning, the *participationist* theorists claim that it is the social dimension of learning that matters, and refrain from making any reference to the cognitive aspect of learning. I argue that because existing

contributions perceive the two metaphors as contradictory and mutually exclusive, they end up with an incomplete representation of organisational learning. Inspired by recent works of learning theorists (e.g. Elkjaer, 2004; Marshall, 2008) to stop reading acquisition and participation metaphors as ontological stipulations, this thesis builds up the case for bridging the two perspectives and argues that organisational learning is a holistic experience that has cognitive as well as social dimensions. The two metaphors are synthesised by exploring the social and cultural contexts of learning in the organisation (i.e., elements from the participation metaphor) for the acquisition of organisational knowledge and skills. It is revealed that the cognitively-oriented structural activities of knowledge acquisition and dissemination seem to matter as much as the situated, dynamic and social processes underpinning capability development and learning.

The thesis contributes to the debates in the organisational learning literature by intellectually bridging the gap between the *acquisition* and *participation metaphors.* It does so by utilising the concept of *organisational learning mechanisms* (OLM) introduced by Popper and Lipshitz (1998, 2000); this has enabled me to study knowledge acquisition, dissemination and interpretation processes while attending to the social and cultural contexts within which they occur. The thesis also contributes to the development of the rather limited studies of OLMs. While extant OLM studies focus too much on the structural facet, this thesis contributes to the expansion of the concept by considering the links between social and contextual factors and OLM design and implementation; as such it fills the gap pointed out by Zollo and Winter (2002). From a methodological point of view, the concept of OLM takes the rather amorphous representation of learning in the *participation metaphor* and makes it observable and tangible. Making organisational learning more easily observable offers researchers a tool to study the phenomenon. It provides a means through which organisational learning can literally be seen in action without making it a disembodied, almost mechanical process, as done in the *acquisition metaphor*. From a theoretical perspective, by utilising the OLM concept, this thesis distinguishes between individual and organisational learning. It points out specific organisational learning structures and processes, suggesting how individual learning becomes organisational. By observing the connection between individual and organisational learning, the thesis, on a methodological level, extends the observations made by

participationist scholars by compensating for their disregard of the structural facet of learning.

As evidenced and discussed in Chapter 6, the existence of OLMs does not guarantee that organisational learning will occur at the organisational level or that learning will generate improved organisational capabilities. Apart from establishing a structural context suitable for particular capability development practices, the thesis illustrates the social and cultural contexts which are conducive to high-quality organisational learning. Attending to the social facets of OLMs has revealed some interesting findings. Empirical evidence places an emphasis on the endogenous value that organisations attach to new knowledge and extends the current thinking by suggesting that learning and capability are no longer exclusively associated with adaptation and adjustment to the external environment; they are about active participation and penetration, which proceed from intrinsic organisational motivation and endogenous entrepreneurship towards knowledge acquisition and generation. A clear link is found between organisations' valuation of knowledge, learning investment and level of capability to be developed. While organisations which exogenously value knowledge invest in disjointed, ad hoc and problem-driven learning mechanisms that are based on linear knowledge acquisition and knowledge dissemination, organisations which also attach endogenous value to knowledge harvest all improvement and learning opportunities continuously. And as I have discussed in Section 7.2, this knowledge orientation has a direct effect on the resulting organisational capabilities. The thesis suggests that recognising the value of knowledge is an important factor that makes organisations develop flexible and open boundaries for new external knowledge to enter; and it enables them to stay receptive towards the environment. With this observation, this thesis tangentially joins the recent debates in the field of absorptive capacity by advocating that recognising the value of knowledge is an important antecedent to triggering knowledge acquisition (Todorova and Durisin, 2007).

Finally, the thesis reveals that the scale of organisational members' involvement in both the design and implementation of OLMs determines the extent to which the organisation learns as a community. Where this participation is low, knowledge remains located in a narrow circle of organisational members; where it is high, more extensive learning occurs and opportunities for learning and renewal are created for

the wider organisation. Participation is particularly important because unless organisational members judge the purpose, process and outcome of a particular OLM to be valid and important, they will not make the necessary effort to change their current patterns of daily practice. Such OLMs generate intended and purposeful capabilities through a cyclical interaction between knowledge, participation, co-creation and continuous improvement. Organisational members are expected not only to fulfil their individual function but also continuously to improve organisational functioning. They are expected to solve production (or service delivery) problems, improve production (or service delivery) and other organisational processes, assist in technology advancement, import new knowledge into the organisation, and share their knowledge with others. A malleable link between power structures and the emergence and flow of this interrelationship is observed as well. In this way, it seems that the evidence from participative and co-created learning events illustrates the influence of systemic power which, consequentially, produces emergent, ongoing and flexible OLMs. Alternatively, episodic power structures produced linear, mechanistic and disjointed OLMs that are designed and implemented in a more 'elitist' fashion, rather than being participative.

It was especially interesting to see that, regardless of the nature of organisational life, the same patterned relationship between the structural, cultural and social facets and high-quality organisational learning has repeated itself across different industries, thus maintaining the divergence between adapter and innovator firms. In this thesis, I have refrained from trying to develop a formal contingency model that links OLMs with specific types of organisational work or other features of the learning situation. This area of inquiry provides fertile ground for future research.

7.3.3. Summary of Contributions

This section has related the findings to the existing literature and has discussed the implications that they have for the conceptualisation of the nature and process of organisational capabilities. It has mainly demonstrated and argued that the extant theories of provide only part of the picture and that there is room for improvement. The findings of this lengthy discussion are summarised in Table 7.2, below.

Current view	*Contributions of this work*
Working Assumptions	
• Organisations exist within an independently given environment. This objective environment may be accurately or inaccurately perceived, but in either case the organisational challenge is to maintain organisation-environment fit (e.g. Lawrence and Lorsch, 1997)	• An objective environment simply does not exist. Organisations in an industry cannot simply stand outside the environment and adjust themselves to environmental trends. Their actions make the trends and organisations actively enact their environments.
• Idea of Alignment: Organisations should adapt to their environments. They need to align internal capabilities with external forces if they want to survive and maintain competitive advantage.	• Idea of Envelopment: For a given level of environmental dynamism, there is an envelope of firm dynamism that is allowed for survival.
• Organisations are passive learners and problem-solvers that attempt to gain a greater control over the external world with the help of new knowledge.	• Organisations are proactive learners. They can exhibit active and continuous interest in external knowledge and can have an aspirational approach towards learning.
Nature and Content	
• Capabilities are hierarchically-ordered (Ambrosini et al., 2009; Eisenhardt and Martin, 2000; Winter, 2003; Zahra et al., 2006) and sequentially-stepped (Brown and Eisenhardt, 1997).	• Found empirical support in exploring the concept in various environmental contexts where different constraints and conditions prevail.
• Capabilities are equifinal (Eisenhardt and Martin, 2000) meaning that there are multiple developmental paths leading to the same capability.	• Not only can the same capability be reached by multiple paths, but multiple capabilities also can lead to the same end state in terms of competitive success.
• Zero-level operational capabilities permit the firm to survive in the present (Winter, 2003) but higher-level dynamic capabilities are needed for improved effectiveness (Zollo and Winter, 2002) and sustained competitive advantage (Teece et al., 1997; Teece, 2007).	• Zero-level, operational capabilities can be a source of sustained competitive advantage in relatively stable, traditional industries.
• It is implicitly assumed that dynamic capabilities are firm-wide and operate across the organisation.	• Different levels of capabilities can operate within one organisation and they can even co-exist within one function.
Antecedents	
• Dynamic capabilities are most valuable when the external environment is changing rapidly or unpredictably (Eisenhardt and Martin, 2000; Teece et al., 1997; Teece, 2007)	• A volatile environment is not a necessary component of a dynamic capability. Dynamic capabilities can also operate in relatively stable environments.
• Capability development is subject to external exogenous factors such as market dynamism (Eisenhardt and Martin, 2000; Zollo and Winter, 2002) and internal firm resources such as structures, systems, physical assets and human resources (Verona and Ravassi, 2003).	• Internal endogenous factors such as a desire to change, management's perceptions of opportunities and perceived external change matter as much as any other exogenous factors. The role of organisational members in enacting and directing such capabilities is very important.
• In unstable environments, organisations tend to resort to explorative learning (Van den Bosch et al., 1999).	• Organisations in highly-dynamic environments can focus on exploitation while exploration can be an acceptable knowledge behaviour in relatively stable environments.
Process	
• The capabilities of an organisation exist in a constellation of *communities of practice* (Wenger and Snyder, 2000), each taking care of a specific aspect of the knowledge that the organisation needs to develop a particular capability.	• This work applies communities of practice to industrial settings with highly-structured workflows and terms this organisational grouping *capability circles.*
• Learning mechanisms are important for the development and evolution of capabilities (Eisenhardt and Martin, 2000; Zollo and Winter, 2002), but the concept of learning mechanisms is neither well-defined nor empirically operationalised.	• This work offers a deeper conceptualisation of the concept of learning mechanisms and provides empirical support for the proposition of Zollo and Winter (2002) that there is a relationship between learning mechanisms and capabilities.
• The field of organisational learning relies on the dichotomy between the acquisition and participation metaphors, and these metaphors are seen as contradictory by scholars who subscribe to one or the other.	• This work suggests treating the two metaphors complementarily (Elkjaer, 2003; 2004; Marshall, 2007; 2008) and bridges the two with the help of the concept of *organisational learning mechanisms* that enables focusing on both the structural and social facets of organisational learning.

Table 7.2. The Summary Table of Contributions of the Thesis

7.4. Methodological Reflections

An important aim of this research has been to build a rich descriptive understanding of organisational capabilities and the experience of developing organisational capabilities by its concern for appreciating the multi-faceted aspect of the antecedents, nature and process of organisational capabilities. Following this social constructivist ontology, I sought to allow the experiences and stories of the research participants to form the basis for any theoretical propositions put forward in the thesis. This is a methodological choice which has been seriously overlooked by the extant capability literature (Ambrosini and Bowman, 2009; Easterby-Smith et al., 2009). Such a focus on emergent, inductive and contextualised theory-building made the case study method (Stake, 1995) the most appropriate research method with which to conduct this qualitative inquiry.

This work follows a comparative case study research design. In terms of the number of cases chosen to be studied and analysed during the research (i.e., the number of firms to be included), six cases provided an extremely rich picture of organisations' diverging perceptions of organisational capabilities. Eisenhardt (1989) recommends that selecting between four to ten cases normally works well. In terms of this study, six cases seemed to be instrumental to achieving a greater understanding of the concepts of organisational capabilities and capability development. In particular, given the contextual diversity of the six firms, the similarities in the patterns and consistencies observed were perceived to be an indication of the greater theoretical significance of the findings. In-depth qualitative interviewing enabled me to access organisational perceptions and experiences across their full spectrum and, as a result, has contributed to constructing an enactment model of organisational capabilities. This was further reinforced through inductive data analysis. It allowed inductive conceptualisation, which was particularly suitable to address the research question. Moreover, as the discussion in Chapter 3.6 illustrated, starting analytical construction as early as the stage of data collection enabled flexible categorisation of the data and encouraged the natural emergence of theory.

However, two important reflections emerge from using this particular methodology. First and foremost, the immense volume of data generated as a result of 42 interviews

conducted in six firms made the data analysis process an extremely daunting task. It was difficult to imagine how five hundred pages of transcripts could be transformed into a structured and meaningful form that would create the conceptual basis of the thesis. Moreover, although there are general guidelines that outline how to conduct qualitative data analysis, I found it difficult to make a methodological commitment and to prescribe to or rigorously follow one particular data analysis approach. As a result, as outlined in Chapter 3.6, data analysis remained a largely intuitive, emergent and iterative process. This proved to be one of the most demanding and challenging phases of the research; and yet, on reflection, this remains a highly experiential but important learning process.

In one sense, following this thorny path of data analysis was a consequence of my desire to keep each transcript *as a whole*. I perceived it to be risky in terms of decontextualisation to extract parts of the transcripts to analyse and contrast. At the outset of the analysis of the interview transcripts, I tried to use a "grounded theory approach" (Charmaz, 2006) as an analytical tool. But, having coded the first case, it became quickly evident that I was not convinced by the highly structured approach offered by grounded theorising. Development of codes and categories could have been helpful for navigating through the data but I felt that such a systematic approach to data analysis would have been neglectful to the details and would have resulted in a forced oversimplification of the data. After having come up with a dozen codes, I felt that I was being driven by those codes rather than by the data. I realised that while I was reading the data I was not really trying to appreciate the complex meanings and interrelationships but was merely searching for replications of my preliminary codes. Similarly, during the initial phases of data analysis, the use of qualitative data analysis software packages such as Atlas.ti and NVivo were contemplated but again the adoption of such methods was rejected as, once again, that would have involved coding the data quite rigidly; and becoming a proficient user of the software would have taken several months. Moreover, because my transcripts were in Turkish and I was coding in English, I felt that I was losing connection with the data when I tried to follow a rigorous coding approach. On the other hand, when I tried to remain open-minded and not to worry about my code list while coding new sets of data, I ended up with literally hundreds of codes for one case only, because I was associating Turkish interviewee accounts with different English words (which were mostly synonymous)

BOX 7.1: Reflections on Qualitative Data Translation: problems and solutions

Organisational research has traditionally been dominated by Anglo-American culture, and the English language dominates. However, this situation has changed during the last few decades as a result of the increasing number of international researchers who prefer to write and publish their works in English, in order to attract the attention of a wider audience and gain international recognition. Therefore, data translation and transferring meaning from source language to English become crucial issues. The common view on data translation is that a translator can transfer meanings between two languages unproblematically. However, in my experience, data translation was never a straightforward process and was jeopardised by a number of recurring problems.

The first problem concerns the linguistic differences between languages. There are English words that do not have a true equivalent in Turkish and this had vital effects on data collection since the literature was reviewed, the research was framed and the research questions were suggested in English. The most obvious obstacle in relation to this problem became evident while I was running my pilot interviews. In line with my original research interest, the interviews were centred around the theme of "perceptions and experiences of innovation", but I quickly found out that the lexical meaning of the word innovation, *inovasyon,* was incomprehensible to the interviewees. *İnovasyon* is an English loanword which has been incorporated into Turkish in the last decade. When I started my pilot interviews I quickly found out that, in most cases, innovation was confused with invention, and thus perceived as bright ideas that occasionally occur to brilliant minds. The synonymous word *yenilik*, which translates as novelty in English, is associated with creativity, and thus perceived to be irrelevant by the interviewees who were all businesspeople. Since I was not able to talk about innovation, I had to change the focus of my research and reorient my subsequent interviews around competitiveness and change. Similarly, there are Turkish words and idioms for which there are no true equivalents in English, and this proved to be a continuing problem throughout the process of translating quotes from qualitative interviews conducted in Turkish. I tried to replace them with similar English expressions that "function" in the same way as the original expressions do in Turkish. Whilst it is important to make the translated text understandable to the target audience, trying to conform to the style of the target language must inevitably weaken cultural elements.

The influence of grammatical style is another concern that raised difficulties while analysing the data and writing up the research findings, since there is little similarity in the grammatical structures of the two languages. For instance, Turkish has no noun classes and grammatical genders; therefore, gender pronouns were added into the translated data from the context of interviewee accounts. Similarly, Turkish uses second-person pronouns that distinguish between varying levels of politeness, social distance, age, courtesy or familiarity with the addressee. The plural second-person pronoun and verb forms are used to refer to a single person out of respect. These pronouns were also 'domesticated' in order to get over these effects of grammatical differences. Another distinctive characteristic of Turkish language is its extensive agglutination. Noun cases, plural markers, definite and indefinite compounding are all done by adding affixes to the base word, and verbs can show tenses, negation and potential (i.e., can) and impotential (i.e., cannot) by adding as many affixes as required to the stem.[1] If only translating by focusing on the preciseness of word sequencing, the resulting translated text would not only be clumsy but also incomprehensible to the target audience. Longer sentences resulting from agglutinated words were split into several sentences. The resulting text does not resemble the original text due to these linguistic problems but I believe I have achieved understandability.

My brief encounter with data translation raised a few questions about the implications of moving between languages: If the translator has the power to choose words by making assumptions about meaning equivalence, does this impose another role on the researcher, one of inter-cultural communicator? And if the researcher is not simply "translating" data in order to provide a "correct" version of the text, written in "proper" English, does this mean that the process of data translation involves a significant degree of data analysis?

[1] This makes the Turkish sentences significantly longer when compared to English, since one agglutinated word delivers the meaning of several words in English. One classic example of this is the Turkish word *Avustralyalılaştıramadıklarımızdanmışsınızcasına* which is pronounced as one word, though it can be translated into English as "as if you were one of those whom we could not make resemble the Australian people".

each time. Conducting research in Turkish and writing in English posed other interesting linguistic and cultural challenges, starting from data collection and proceeding to the writing up phase of this research. Box 7.1 summarises some of these problems raised by moving between languages.

A second reflection related to case study research design is the difficulty of striking a balance between maintaining rich and thick descriptions while also providing cross-case insights and generalisation. In the context of this research, even with only six cases, testing and confirming findings, using rival cases, exploring the meaning of outliers and checking out rival explanations proved to be challenging. It is difficult to imagine how the same depth of understanding could have been achieved and subsequently presented in a coherent and meaningful way if more cases had been studied.

With the emergence of numerous qualitative research methodologies, it was often difficult to gain a deep appreciation of the myriad approaches available to me, without actually having the time to practise them. Perhaps a less structured grounded theory approach could have been used in the research or I could have found other suitable approaches, such as narrative analysis or critical incidence technique. But ultimately, a naturalistic (Lincoln and Guba, 1985) phenomenological (Thompson et al., 1989) inquiry driven by inductive theorising attracted my attention, suited my ontological and epistemological commitments, and intuitively appeared to be a credible way to conduct this particular research.

What must be emphasised is that the phenomenological method is not without its problems. Apart from the data analysis challenges posed by inductive theorising, carrying out phenomenological interviews had its own challenges. Although I did some foundational work regarding my research topic during the first year of my PhD and conducted a literature review for this purpose, throughout the remaining parts of my PhD journey I wanted to be as open as possible to the accounts of my interviewees and the experiences of my participant organisations. In order to pave the way for a comprehensive and in-depth understanding of organisations' experiences, I did not impose any rigid, pre-existing or pre-determined framework while scoping the research and planning the interview process. Unstructured phenomenological

interviewing seemed to be the most suitable methodological choice, but the unpredictability ingrained with this method, which is a result of the deep respect for interviewee accounts, represented a significant risk, particularly within the confines of a PhD degree.

As Thompson et al. (1989: 138) assert, phenomenological interviews "flow from the dialogue and not a predetermined path", suggesting that interviews should be participant-led. But allowing interviewees to control the progress of the interviews proved to be problematic in some cases. In every organisation I experienced one such instance where the conversation drifted into talking about issues that I perceived to be irrelevant to the research question at hand. Depending on the personality and attitude of certain interviewees it was very difficult for me to keep any control over how the conversation progressed during the interview. I wanted to adhere to the spirit of phenomenology by adopting an unstructured approach; when I walked into an interview room, I had in mind certain issues relating to the underlying focus of the research that I was keen to discuss. But when certain interviewees introduced other themes that drove the conversation, I occasionally ended up with extremely disjointed interviews which did not give any answers to the questions that I had about the organisation or that particular member of the organisation.

In some cases, the opposite situation came about. Some interviewees did not feel comfortable with the active role they were required to play during the interview. The word 'interview' creates an expectation that the interviewee will be asked certain questions during the interview and that this will result in a question and answer session. An unstructured phenomenological interview does not fulfil such expectations and in a number of cases I tried to maintain a flowing conversation with certain interviewees who were hopelessly waiting to be asked specific narrow questions. In one particular instance, the Cure Centre Coordinator at Dolphin Hotel hinted to me that the interview was not succeeding and that I was incompetent in her eyes as I did not have a list of set questions to direct to her. In phenomenological interviews, dialogue is generated during the discussion and that discussion forms the basis of subsequent questions to be asked. But since she was not familiar with this type of interviewing approach she misinterpreted the situation and thought that I was not asking questions simply because I did not know what to ask next. Dealing with

interviewees who felt uncomfortable with an interview that only has broad questions proved to be difficult for building an in-depth discussion and keeping interviewees talking.

These situations reduced my enthusiasm, energy and concentration during such interviews, which negatively affected my motivation to try to keep the conversation focused. The feeling that an interview was not producing relevant data which were pertinent to my preconceptions about what the interview should cover led me to abandon myself to despair. As an interview progressed in this manner, after a while, I was not keen to prompt the interviewee to talk in depth about issues related to the research. In the case of Crystal Oil, the interview that I had with the Sales Director was so emotionally demanding that I not only wished for that interview to finish as soon as possible, and I also did not want to proceed with further interviews in the organisation. These were not only emotionally draining experiences but were also detrimental to the overall PhD research; with the limited access that I had to the participant organisations I never had chance to make-up for those 'lost' interviews and attain the information that I was keen to discover from other channels, for instance through scheduling additional interviews.

Applying a purely phenomenological interviewing method by maintaining a non-interventionist approach proved to be difficult, since, in practice, there were specific issues that were of academic interest and these issues needed to be covered somehow during the process of interview in order to produce a work of PhD standard. This may seem to go against the core of phenomenological research, but a PhD student (and probably all other researchers) cannot escape the reality that the interviewees should be providing some kind of answers to the research questions driving the research process. However, as I approach the end of this journey, I still believe that phenomenological interviews remain a powerful way to explore organisational phenomena and can be emancipatory, both for the researcher and the researched. A very vivid example of this was the interview that I conducted with the Board Member of Suspension Automotive. Although, he was very sceptical and pessimistic during the interview, at the end of our conversation he thanked me, saying, "You made me realise that my firm is not actually in such a bad situation." In my experience, having the freedom to explore issues in a flexible and responsive manner during the

interviews proved to be highly enjoyable and satisfactory. Overall, using a combination of naturalistic inquiry, case study research, phenomenological interviewing and inductive theorising has demonstrated the amazing richness that can be achieved through in-depth qualitative research methodologies.

7.5. Implications for Practice

This thesis offers a number of observations that have practical relevance. Currently, dynamic capabilities and learning are buzz words of both the business and academic worlds. The speed of technological change and growing firm competition lead to the widely held and heatedly advocated view that the most important contributor to firm competitiveness is the ability of each organisation to *learn* and *dynamically renew* its capability base. Especially during the past two decades, terms such as *learning organisation* and *dynamic capabilities* represent some of the most inspiring advances in management theory. There have been a number of highly influential books which have spread the word among practitioners and consultants. As a result, some organisations have tried to expand their knowledge base through remodelling their human resources practices and training programmes; others have chosen to concentrate on maintaining knowledge about new products and processes. The understanding of what needs to be done differs from organisation to organisation, but they often aim at becoming a *learning organisation* (Gherardi, 1999). Unfortunately, this trend created a false dichotomy between organisations that learn and those that do not. Furthermore, as organisational learning and dynamic capabilities remain elusive concepts with no clearly defined operationalisable criteria, the pursuit of this fashion in the business world drove organisations to make particular choices and undertake certain actions without proper consideration of their suitability and applicability to organisational circumstances. Getting caught up with prescriptive theories proved to be problematic when managers tried to transform theoretical rhetoric into organisational action.

This thesis will certainly not inspire managers to transform their organisations into learning organisations or to excel in the recombination and reconfiguration of organisations' capability bases. On the contrary, it shows that organisations do not

need to conform to one of the singular models posited to them. This work reveals two types of learning mindsets, each of which deploys a particular combination of capabilities and organisational learning processes. They differ in their assumptions about the environment, in their attitude towards new knowledge and learning, learning mechanisms and much more. But, regardless of these significant differences, all six firms were able to remain competitive and place themselves in a position that would enable them to respond to external pressures and keep up with the pace of environmental change. Observing these differences will help managers to appreciate contextual and descriptive, rather than idealistic and prescriptive, approaches to capability development.

Overall, this thesis shows that there is nothing bad with ad-hoc problem solving or learning mechanisms that have a coping approach rather than an aspirational purpose. Evidently, this claim does not mean that all organisational learning is equal or that all organisational capabilities serve the same purpose in terms of competitive position. The focus and chosen strategic postures of innovator organisations suggest an observable profile that can guide management action, if they choose to do so. This thesis reveals that a 'typical' innovator firm is: neither passive nor reactive; does not take the environment as given; envisions plenty of opportunities in the environment; aspires actively to penetrate to benefit from these opportunities; endogenously values new knowledge; is inspired continuously to improve the organisation; is more likely to exploit external knowledge sources while being intrinsically motivated to develop its internal human capital and human processes and, as a result, heavily invests in professional and behavioural training, both on and off the job. I must once again reiterate that although this thesis presents a 'typical' profile of an innovator organisation with innovating to learn mindset, at the end of the day, it is the organisation's choice how it prefers to approach new knowledge and learning and how far it intends to travel with its capability development efforts.

What surfaces from this thesis is that the nature of organisational capabilities and the practice of capability development are too complex to be classified as either/or. The enduring competitive performance of Crystal Oil and other adapter firms are vivid examples of this proposition. Therefore, organisations are encouraged to tailor prescriptive theories to their own organisational contexts. They are the ones that need

to consider by themselves what the desired future situation is and how to manage the process of changing from the current situation to the desired one. This thesis offers plenty of ideas and concepts that might help organisations to visualise their preferred situation and invites managers to distil their own lists of do's and don'ts from the analysis. Ultimately, the greatest effort lies with the organisation, which has to provide all necessary input in terms of the specificities of organisational context and the details necessary to determine the preferred situation, the starting point and the various methods available to it.

7.6. Limitations and Future Research

This thesis, while careful in its observations and findings, has, like all other scholarly studies, limitations that need to be taken into account when considering this thesis' contributions. However, each limitation also suggests some fruitful avenues for future research. This penultimate section brings together this discussion by outlining the limitations of the present study and some opportunities for future exploratory research.

First of all, access to the participant organisations was limited. Buchanan et al. (1998: 56) say that "negotiating access to organisations for the purposes of research is a game of chance, not skill", and it seems that I was pretty unlucky in this respect. I used friends, lecturers and staff from my graduate school and sector associations' general secretariats, yet it took me five months to secure access to the organisations. Even though I dealt positively with gatekeepers' reservations with respect to time and confidentiality, they still blocked access to some valuable information and constrained the time allowed for interviews. None of the organisations provided privileged access to confidential commercial company documents and so I had to settle for access to public data, such as company brochures. Moreover, after my second day in the company, I could easily feel that I was not welcome there anymore. More importantly, none of the organisations that I contacted after the interviews has invited me to visit them to follow up aspects of previous findings. The most important consequence of this limitation is that the analysis represents only a snapshot of a given moment in time, even though organisations are in constant motion. While this thesis has argued that organisational capabilities evolve continuously, and that learning is a process, the

development of participating organisations could not be followed up due to lack of access. Dynamic organisations in stable industries, such as Gold Oil, may fall behind; or adapter firms may suddenly sprint ahead. The change in organisations' capabilities and learning capacities over time can therefore provide additional insights into the organisational processes of development and change and how these processes themselves unfold and change over time. This means that subsequent studies can involve longitudinal research. Furthermore, albeit that I was blocked from accessing any confidential company data, collecting and analysing detailed performance data could help to understand, in greater depth, the relationship between organisational interpretations about the nature and process of organisational capabilities, and firms' competitive performances. Delving into the competitive advantage tenet of the enactment perspective and organisational learning are an attractive avenue for further research.

Secondly, even though phenomenological interviewing enabled me to access organisational perceptions and processes in their full spectrum, and allowed me to alleviate the gap between academic rhetoric and organisational practice, this thesis provides an account of these issues in a fairly linear fashion. I have reiterated several times throughout the thesis that organisational reality is not so linear, where cause and effect are closely linked; as a result, there is no one best way to organise for learning and organisational development. However, the framework presented in this thesis does not fully explicate the gradual emergence of organisational capabilities and learning strategies in participant organisations. Because interviewees rationalised organisational actions retrospectively during encounters with the researcher, ironically, even phenomenological interviews aiming to enquire into the world of lived experience fell short of presenting the inevitable organisational tensions between innovative developments and operational imperatives; divergent viewpoints across the organisation provoked conflict around learning and development issues and other ambiguous challenges. Since interviews took place off-line, at designated and segregated times and places, both the interviewee and interviewer tend to portray organisational events as isolated phenomena. In this respect, participatory research methods such as participant observation, ethnographic studies and action research are needed to describe and explain the complexity and ambiguity of organisational reality. This would soon become a complicated theory, however. An example of such a theory

can be found in Stacey (2001, 2010), who attempts to develop non-linear approaches to the study of complex organisational phenomena, such as learning and knowledge creation. As even quite minor decisions or seemingly irrelevant events, which are hardly ever mentioned by interviewees, can provoke major changes in the total system, drawing on the complexity sciences as source of analogies for managerial action and organisational reality can prove to be fruitful. I follow the work of scholars applying complexity theory to the study of daily organisational life with admiration; I would be interested to see how complexity sciences might improve the framework presented in this thesis.

Thirdly, qualitative researchers expect to be able to gather multiple perspectives of one organisation that will enable them to gain a richer and more complete understanding of phenomena. In the context of this research, talking to several people from various departments with different backgrounds, and as such having multiple voices, should have been enough to provide multiple perspectives and multiple interpretations of the issues at hand. Surprisingly, except for few interviewees who differed from the main accounts, I was not able to uncover viewpoints that would disconfirm the 'consensus'. Although some researchers might prefer to interpret this consistency across members' accounts as cross-validation of their research results and an indication of strong and convincing findings, I think that this is an important issue to think through. I can suggest two reasons for this unity of perspectives. First, Turkish culture is characterised by high social distance; as a consequence, organisational members respect authority and so little discussion and negotiation take place. Even in the most egalitarian organisational culture, to conflict with management's viewpoint in the workplace, especially while speaking to a stranger, is risky. The fact that all participant organisations were medium-sized organisation where the owner-manager or the general manager had a very strong say in organisational decisions and actions might have contributed to their hesitance to reveal their personal views. Secondly, the fact that, in all six firms the managing director (owner-managers in family firms and general managers in professionally-run firms) was my gatekeeper, most probably exacerbated this situation. I established the initial contact with the managing director; I conducted the first interview with the managing director every time, and, in some cases, it was him or his assistant who organised my daily interview schedule and walked me around the firm to introduce

me to my interviewees. Understandably, the interviewees might be unsure about my relationship with the managing director and, although I tried my best to reassure them about confidentiality, the level of trust between me and interviewees might have been insufficient for them to feel safe to express their 'personal' versions of the story. But even in firms where neither the managing director nor his assistant had any direct control on my interview schedule, the interviewees presented accounts in line with the managing directors' perceptions and interpretations. I do not believe that high inter-interviewee consensus induces bias or creates a problem with respect to the credibility of the research results, because this consensus between organisational members most probably reifies itself in everyday organisational actions. If organisational members do not feel safe to disagree with the managing director during an interview with an independent research, there is no reason to assume that they would take actions that would conflict managing directors' interpretations or openly disagree with him during a meeting. Nevertheless, I would be curious to see what the results will be when similar studies are conducted in other cultural contexts; perhaps the lack of multiplicity of perspectives is a small firm phenomenon and the traits of Turkish culture have little effect on this.

Along the same lines, currently, six cases provide intuitive and conceptual appeal, but a more diverse set of cases will certainly expand the findings. Adding different industries can assist in validating these findings in other contexts. Especially, I would be interested to study more firms from other traditional industries to see whether firms really can maintain competitiveness by primarily investing in operational capabilities, as Crystal Oil did. It might be that the key to Crystal's competitive success relies on some other factor which is not accounted for in this research. As such, adding more cases would enable us not only to further investigate the findings of this thesis, but also to observe new features of organisational capabilities. Similarly, only medium-sized firms were examined in this study and it would be interesting to investigate whether the findings can be applied to large firms, especially if they have a completely different structure, such as firms quoted on the stock exchange, or firms that are subsidiaries of multinational companies. Contrasting the findings of research on medium and large firms would enable us to detect firm size effects on organisational capabilities enactment. Research in that area could focus for example on contrasting firms that control competitive capabilities and those that suffer from

resource poverty. All cases included in this research were successful in terms of competitive performance, including some average performers or even laggards could yield a promising way to understand further the impact of managers' enactment on organisational capabilities.

Finally, more research into leadership and managerial channels of influence could provide interesting insights. Several scholars have emphasised the role of leaders in organisational learning (e.g. Vera and Crossan, 2004) and some scholars such as Senge (1990) have asserted the centrality of leadership for organisational learning and competitive advantage, and predicted that "the learning organisation will remain a distant vision until leadership capabilities they demand are developed" (p.22). There is much that can be learned from these studies but, in building my framework, I intentionally refrained from focusing on the notion of leadership, although I had some empirical evidence for the effects of leadership on capability enactment and organisational development. I did this because I did not want to ascribe the success of innovator firms to 'mythological' larger-than-life general managers who had transformed their organisations into proactive innovator organisations. I wanted to shift the focus on to less 'heroic' aspects of organisational life, such as the organisational attitudes and everyday organisational processes that promote or inhibit the organisational level learning that creates generative organisational capabilities. The association of innovator firms with visionary leaders might have implied that success requires unusual leadership at the top of the organisation and would then distance capability development and organisational learning from the areas where most managers have influence. Without downplaying the achievements of the Seahorse General Manager or the Gold management team, I believe that organisational members at all levels could play a role in instituting learning in their areas of responsibility. Focusing on 'innovation champions' in innovator firms would make it easier to long for heroic managers, rather than to focus on the mundane aspects of organisational work that are necessary to help organisations learn more productively. My position is that leadership is not the *sine qua non* for high-quality organisational learning and generative organisational capabilities, but I do acknowledge that visionary leaders promote organisational learning by employing channels of influence, through which they affect the attention, goals, and priorities of their subordinates. Appropriate leadership behaviours promote both the psychological

conditions and cultural norms conducive to learning. It could therefore be promising to analyse the impact of leadership on capabilities and learning and to learn how they relate to issues of power and organisational politics.

7.7. Conclusion

The early chapters of this thesis demonstrated that the academic community has not yet developed a holistic understanding of what organisational capabilities are and how learning as a capability unfolds. Although multiple views exist around capabilities and learning, there appears to be no unified representation or integrative theory of these issues. This thesis has introduced the possibility of bringing these notions under one roof.

In developing this thesis, I have taken a multidisciplinary approach, integrated existing conceptualisations and research findings, and used concepts related to organisational competitiveness. Although I believe that the multi-facet framework presented here is widely transferable, manifestations of it in organisational reality will vary from firm to firm. I have attempted to illustrate the power of my framework for understanding organisational capabilities and learning by applying it in a wide variety of sectors and contexts. This work contributes to the extant literature by applying the capability construct to non-dynamic industries and revealing that organisational capabilities in stable environments are not necessarily immune to change. On the basis of cross-industry and intra-industry empirical evidence, I propose adopting an enactment perspective to capabilities. I suggest that the nature of organisational capabilities is much more value-laden, subjective, context-based, provisional and variable than the positivist, normative, given and predictive representation of the concept in the extant literature. The thesis presents organisational capabilities as a phenomenon which comes not only through external factors and internal resources but, more importantly, through managerial enactment, organisational mindset and learning mechanisms; this suggests that organisational capabilities are a dynamic and emergent concept which is a function of the interaction of a multitude of organisational antecedents and processes.

What surfaces from these discussions is that there appears to be no one best set of capabilities that will ensure competitive performance. It portrays variety in the organisational capabilities and mechanisms used to develop them which are capable of delivering sustained competitiveness. The evidence presented in this thesis suggests that it is impossible to define capabilities independently of organisational context. Some organisations choose to penetrate their environment by learning actively and continuously improving their organisational resources, practices and processes, while there are organisations that reside on stability and continuity and refrain from change as much as possible by exhibiting passive or reactive behaviours. But, regardless of these differences, all six firms covered in this research are successful and capable of keeping up with the competition in their own right. Thinking through differences shows that idealistic and prescriptive approaches to the relation between competitiveness, capability and learning are problematic for making evaluative judgements.

As such, this thesis emphasises that organisational capabilities are a by-product of the organisational life that is mediated by the organisation's assumptions about the environment, its attitude towards knowledge and learning, and its other contextual as well as structural features. It puts forward the idea that each organisation develops its own strategic posture in dealing with the external environment and chooses how far it wants to travel for capability development purposes; thus they turn organisational capability into a context-bound, idiosyncratic phenomenon that it constructed by the organisation. In so doing, this work has demonstrated that the models suggesting the centrality of 'higher' capabilities for competitiveness are rather limited and it invites the strategic management literature to reconsider its prescriptive and evaluative approaches to studying the concept and to explore further how organisational capabilities comes about though a variety of organisational contexts and processes.

I would like to say a few last words about organisational learning as a capability development process. My fundamental assumption is that all organisations learn, though the frequency and quality of learning vary widely. In many ways, this thesis has been a critique of the prescriptive models that suggest that organisations, either implicitly or explicitly, conform to specific models or types of organisational

functioning so as to ensure performative outcomes. I am not necessarily rejecting the five disciplines (Senge, 1990), Model II (Argyris and Schön, 1996) or other typologies. Indeed, I have considered some of these ideas to be important and have used them in my analysis. However, I do not believe that these disciplines, or any other set of knowledge and skills, directly add up to organisational learning. There is a significant degree of flexibility that mediates between the 'optimal way' of doing things and the organisational context. This thesis presents organisational learning not as a given, but as a value-laden concept whose performative outcomes very much depend on organisational routines, organisational attitudes towards new knowledge, managerial priorities and perceptions, and agency participation. It argues that the 'functionality' of organisational learning is once again subject to the interaction of a variety of structural and contextual factors, rather than the mere possession of learning mechanisms.

REFERENCES

Adner, R. and Helfat, C.E. (2003). Why is there a resource-based view: toward a theory of competitive heterogeneity?. *Strategic Management Journal*, 24(10), pp.1011-25.

Akgün, A.E., Lynn, G.S. and Byrne, J.C. (2003). Organizational learning: a socio-cognitive framework. *Human Relations*, 56(7), pp.839-68.

Alavi, M. and Denford, J.S. (2011). Knowledge management: process, practice and Web 2.0. In M. Easterby-Smith and M. Lyles, eds. *Handbook of organizational learning and knowledge management*. 2nd ed. Chichester: Wiley, pp.105-24.

Alavi, M. and Leidner, D. (2001). Knowledge management and knowledge management systems: conceptual foundations and research issues. *MIS Quarterly*, 25(1), pp.107-136.

Alvesson, M. (2004). *Knowledge work and knowledge-intensive firms.* Oxford: Oxford University Press.

Alvesson, M. and Sköldberg, K. (2000). *Reflexive methodology: new vistas for qualitative research*. London: Sage.

Ambrosini, V. and Bowman, C. (2009). What are dynamic capabilities and are they a useful construct in strategic management. *International Journal of Management Reviews*, 11(1), pp.29-49.

Ambrosini,V., Bowman, C. and Collier, N. (2009). Dynamic capabilities: an exploration of how firms renew their resource base. *British Journal of Management*, 20(Special Issue), pp. S9-24.

Ambrosini, V. and Bowman, C. (2001). Tacit knowledge: some suggestions for operationalization. *Journal of Management Studies*, 38(6), pp.811-829.

Amit, R. and Schoemaker, P.J. (1993). Strategic assets and organizational rent. *Strategic Management Journal*, 38(6), pp.811-29.

Anderson, P.F. (1983). Marketing scientific progress and scientific method. *Journal of Marketing*, 47(4), pp.18-31.

Aragon-Correa, J.A. and Sharma, S. (2003). A contingent resource-based view of proactive corporate environmental strategy. *Academy of Management Review*, 28(1), pp.71-88.

Argote, L. and Ingram, P. (2000). Knowledge transfer: a basis for competitive advantage in firms. *Organizational Behavior and Human Decision Process*, 82(1), pp.150-169.

Argyris, C. and Schön, D. (1974). *Theory in practice: increasing professional effectiveness.* San Francisco, CA: Jossey-Bass.

Argyris, C. and Schön, D. (1978). *Organizational learning: a theory of action perspective*. Reading, MA: Addison Wesley.

Argyris, C. and Schön, D. (1996). *Organizational learning II: theory, method and practice*. Reading, MA: Addison-Wesley.

Baird, L., Henderson, J.C. and Watts, S. (1997). Learning from action: an analysis of the center for army lessons learned (CALL)". *Human Resource Management*, 36(4), pp.385-95.

Banister, P., Burman, E., Parker, I., Taylor, M., Tindall, C. (1994). *Qualitative methods in psychology: a research guide*. Maidenhead: Open University Press.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), pp.99-120.

Barney, J.B. (2001a). Is the resource-based view a useful perspective for strategic management research?: Yes. *Academy of Management Review*, 26(1), pp.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(6), pp.643-50.

Barreto, I. (2010). Dynamic capabilities: a review of past research and an agenda for the future. *Journal of Management*, 35(1), pp.256-80.

Bateson, G. (2000). The logical categories of learning and communication. In *Steps to an Ecology of Mind*, pp.279-308. Chicago, IL: University of Chicago Press. Available at: http://jpmgoncalves.home.sapo.pt/textos/bateson_learningcommunication.pdf [Accessed 19 July 2011]

Beer, M., Voelpel, S.C., Leibold, M. And Tekie, E.B. (2005). Strategic management as organizational learning: developing fit and alignment through a disciplined process. *Long Range Planning*, 38(5), pp.445-65.

Berger, P. and Luckmann, T. (1967). *The social construction of reality: a treatise in the sociology of knowledge*. London: Allen Lane.

Bochner, A.P. (2002). Criteria against ourselves. In N.K. Denzin and Y.S. Lincoln, eds. *The qualitative inquiry reader.* Thousand Oaks, CA: Sage, pp.257-65.

Boeije, H. (2002). A purposeful approach to the constant comparative method in the analysis of qualitative interviews. *Quality and Quantity*, 36(4), pp.391-409.

Bogdan, R. and Taylor, S.J. (1975). *Introduction to qualitative research methods: a phenomenological approach to social sciences.* New York, NY: John Wiley and Sons.

The 1971 Report of the Committee of Inquiry of Small Firms, 1971. (Bolton Report) (Cmnd 4811) London: HMSO.

Bowman, C. and Ambrosini, V. (2003). How the resource-based and the dynamic capability views of the firm inform competitive and corporate level strategy. *British Journal of Management*, 14(4), pp.289-303.

Brown, J.S. and Duguid, P. (1991). Organizational learning and communities of practice: toward a unified view of working, learning and innovation. *Organization Science*, 2(1), pp.40-57.

Brown, J.S. and Duguid, P. (2001). Knowledge and organization: a social-practice perspective. *Organization Science*, 12(2), pp.198-213.

Brown, S.L. and Eisenhardt, K.M. (1997). The art of continuous change: linking complexity theory and time-paced evolution in relentlessly shifting organizations. *Administrative Science Quarterly*, 42(1), pp.1-34.

Bryman, A. (1988). *Quality and Quantity in Social Research*. London: Unwin Hyman.

Buchanan, D., Boddy, D. and McCalman, J. (1988). Getting in, getting on, getting out and getting back. In A. Bryman, ed. *Doing research in organizations*. London: Routledge, pp.53-67.

Burgess, R.G. (1984). *In the field: introduction to field research.* London: Routledge.

Burns, T. and Stalker, G.M. (1979). *Social paradigms and organizational analysis*. London: Tavistock.

Burrell, G. and Morgan, G. (1979). *Sociological paradigms and organizational analysis.* London: Heinemann.

Carroll, J.S. (1995). Incident reviews in high-hazard industries: sense making and learning under ambiguity and accountability. *Organization Environment*, 9(2), pp.175-97.

Cepeda, G. and Vera, D. (2007). Dynamic capabilities and operational capabilities: a knowledge management perspective. *Journal of Business Research*, 60(5), pp.426-37.

Chandler, A.D., Jr. (1990). *Scale and scope: the dynamics of industrial competition*. Cambridge, MA: Harvard University Press.

Charmaz, K. (2006). *Constructing grounded theory: a practical guide through qualitative analysis*. London: Sage.

Chell, E. (2004). Critical incidence technique. In C. Cassell and G. Symon, eds. *Essential guide to qualitative methods in organizational research*. London: Sage, pp.45-60.

Cobbenhagen, E. (2000). *Successful innovation: towards a new theory for the management of small and medium sized enterprises.* Northampton, MA: Edward Elgar.

Cockburn, I., Henderson, R. and Stern, S. (2000). Untangling the origins of competitive advantage. *Strategic Management Journal*, 21(10/11), pp.1123-45.

Cohen, B.W. and Levinthal, D. (1990). Absorptive capacity: a new perspective on learning and innovation. *Administrative science Quarterly*, 35(1), pp.128-52.

Collis, D.J. (1994). Research note: how valuable are organizational capabilities?. *Strategic Management Journal*, 15(S1), pp.143-52.

Collis, J. and Hussey, R. (2003). *Business research: a practical guide for undergraduate and postgraduate students*. 2nd ed. Basingstoke: Palgrave Macmillan.

Cook, S.D. and Yanow, D. (1993). Culture and organizational learning. *Journal of Management Inquiry*, 2(4), pp.373-90.

Cook, S.D. and Brown, J.S. (1999). Bridging epistemologies: the generative dance between organizational knowledge and organizational knowing. *Organization Science*, 10(4), pp.381-400.

Cooper, R. and Law, J. (1995). Organization: distal and proximal views. In S. Bacharach, P. Gagliardi, B. Mundell, eds. *Research in the sociology of organization*, 13. Hampton Hill: JAI Press, pp.237-74.

Creswell, J.W. (2003). *Research design: qualitative, quantitative and mixed method approaches*. 2nd ed. Thousand Oaks, CA: Sage.

Cronbach, L.J. (1982). *Designing evaluations of educational and social research programs.* San Francisco, CA: Jossey-Bass.

Crossan, M.M., Lane, H.W. and White R.E. (1999). An organizational learning framework: from intuition to institution. *The Academy of Management Review*, 24(3), pp.522-37.

Curran, J. and Blackburn, R.A. (2001). *Researching the small enterprise.* London: Sage.

Cyert, R.M. and March, J.G. (1963). *A behavioral theory of the firm*. Cambridge: Blackwell.

Daft, R.L. and Lewin, A.Y. (1993). Where are the theories for the 'new' organizational forms?. *Organization Science*, 4(4), pp.i-vi.

Daft, R.L. and Weick, K.E. (1984). Toward a model of organizations as interpretation systems. *Academy of Management Review*, 9(2), pp.284-95

Danneels, E. (2010). Trying to become a different type of company: dynamic capability at Smith Corona. *Strategic Management Journal*, 32(1), pp.1-31.

Danneels, E. (2003). Tight-loose coupling with customers: the enactment of customer orientation. *Strategic Management Journal*, 24(6), pp.559-76.

Davey, K.M. and Liefooghe, A.P.D. (2004). Critical research and analysis in organizations. In C. Cassell and G. Symon, eds. *Essential guide to qualitative methods in organizational research.* London: Sage, pp.180-91.

Day, G.S. and Nedungadi, P. (1994). Managerial representations of competitive advantage. *The Journal of Marketing*, 58(2), pp.31-44.

DeFilippi, R. and Ornstein, S. (2003). Psychological perspectives underlying theories of organizational learning. In M. Easterby-Smith and M. Lyles, eds. *Handbook of organizational learning and knowledge management*. Oxford: Blackwell, pp.19-37.

Deming, E.W. (1981). Improvement of quality and productivity through action by management. *National Productivity Review*, 1(1), pp.12-22.

DiBella, A.J., Nevis, E.C. and Gould, J.M. (1996). Understanding organizational learning capability. *Journal of management studies*, 33(3), pp. 361-79.

Denzin, N.K. and Lincoln, Y.S. (1994). Introduction: entering the field of qualitative research. In N.K. Denzin and Y.S. Lincoln, eds. *Handbook of Qualitative Research.* London: Sage

Desphande, R. (1983). Paradigms lost: on theory and method in research on marketing. *Journal of Marketing*, 47(3), pp.101-10.

Dodgson, M. (1993). Organizational learning: a review of some literatures. *Organization Science*, 14(3), pp.375-94.

Donmoyer, P. (2000). Generalizability and the single-case study. In R. Gomm, M. Hammersley and P. Foster, eds. *Case study method: key issues, key texts.* Thousand Oaks, CA: Sage, pp.45-68.

Dosi, G. and Marengo, L. (1994). Some elements of an evolutionary theory of organizational competences. In R.W. England, ed. *Evolutionary concepts in contemporary economics*. Ann Arbor, MI: University of Michigan Press, pp.211-35.

Dosi, G., Nelson, R. and Winter, S.G. (2000). *The nature and dynamics of organizational capabilities.* Oxford: Oxford University Press.

Duncan, R.B. (1972). Characteristics of organization environments and perceived environmental uncertainty. *Administrative Science Quarterly*, 17(3), pp.313-27.

Easterby-Smith, M. (1997). Disciplines of organizational learning: contributions and critiques. *Human Relations*, 50(9), pp.1085-113.

Easterby-Smith, M. and Prieto, I. (2008). Dynamic capabilities and knowledge management: an integrative role for learning?. *British Journal of Management*, 19(3), pp.235-49.

Easterby-Smith, M., Lyles, M.A. and Peteraf, M.A. (2009). Dynamic capabilities: current debates and future directions. *British Journal of Management*, 20(Special Issue), pp.S1-8.

Easterby-Smith, M., Snell, R. and Gherardi, S. (1998). Organizational learning: diverging communities of practice?. *Management Learning*, 29(3), pp.259-72.

Easterby-Smith, M., Thorpe, R. and Lowe, A. (2002). *Management research*. 2nd ed. London: Sage.

Easton, G. (1995). Methodology and industrial networks. In K. Moller and D.T. Wilson, eds. *Business networks.* Norwell, MA: Kluwer Academic Publishers, pp. 411-92.

Edmondson, A. (2003). Framing for learning: lessons in successful technology implementation. *California Management Review*, 45(2), pp.34-54.

Edmondson, A. (1996). Learning from mistakes is easier said than done: group and organizational influences on the detection and correction of human error. *Journal of Applied Behavioral Science*, 32(1), pp.5-28.

Eichelberger, R.T. (1989). *Disciplined inquiry: understanding and doing educational research*. New York, NY: Longman.

Eisenhardt, K. and Graebner, M. (2007). Theory building from cases: opportunities and challenges. *Academy of Management Journal*, 50(1), pp.25-32.

Eisenhardt, K.M. (1989). Building theories from case study research. *Academy of Management Review*, 14(4), pp.532-50.

Eisenhardt, K.M. (1991). Better stories and better constructs: the case for rigor and comparative logic. *Academy of Management Review*, 16(3), pp.620-7.

Eisenhardt, K.M.and Martin, J.A. (2000). Dynamic capabilities: what are they?. *Strategic Management Journal*, 21(10/11), pp.1105-21.

Elkjaer, B. (2003). Social learning theory: learning as participation is social processes. In M. Easterby-Smith and M. Lyles, eds. *Handbook of organizational learning and knowledge management*. Oxford: Blackwell, pp.38-53.

Elkjaer, B. (2004). Organizational learning: the 'third' way. *Management Learning*, 35(4), pp.419-34.

Feldman, M. (2000). Organizational routines as a source of continuous change. *Organization Science*, 11(6), pp.611-29.

Feldman, M.S. and March, J.G. (1981). Information in organizations as signal and symbol. *Administrative Science Quarterly*, 26(2), pp.171-86.

Feldman, M.S. and Pentland, B.T. (2003). Reconceptualizing organizational routines as a source of flexibility and change. *Administrative Science Quarterly*, 48(1), pp.94-118.

Feldman, M.S. and Rafaeli, A. (2002). Organizational routines as sources of connections and understandings. *Journal of Management Studies*, 39(3), pp.309-31.

Fiol, C.M. and Lyles, M.A. (1985). Organizational learning. *Academy of Management Review*, 10(4), pp.803-13.

Foss, N.J. and Knudsen, T. (2003). The resource-based tangle: towards a sustainable explanation of competitive advantage. *Managerial and Decision Economics*, 24(4), pp.291-307.

Foucault, M. (1977). *Discipline and Punish: the birth of the prison*. New York, NY: Vintage Books.

Friedman, V.J., Lipshitz, R. and Popper, M. (2005). The mystification of organizational learning. *Journal of Management Inquiry*, 14(1), pp.19-30.

Gherardi, S. (1999). Learning as problem-driven and learning in the face of mystery. *Organization Studies*, 20(1), pp.101-24.

Gherardi, S. (2000). Practice-based theorizing on learning and knowing in organizations. *Organization*, 7(2), pp.211-23.

Gherardi, S. (2001). From organizational learning to practice-based knowing. *Human Relations*, 54(1), pp.131-9.

Gherardi, S. (2006). *Organizational knowledge: the texture of workplace learning*. Oxford: Blackwell.

Gherardi, S., Nicolini, D. and Odella, F. (1998). Toward a social understanding of how people learn in organizations. *Management Learning*, 29(3), pp.273-97.

Ghoshal, S. (1987). Global strategy: an organizing framework. *Strategic Management Journal*, 8(5), pp.425-40.

Gill, J. (1995). Building theory from case studies. *Journal of Small Business and Enterprise Development*, 2(2), pp.71-5.

Glaser, B.G. and Strauss, A. (1967). *The discovery of grounded theory*. Chicago, IL: Aldine.

Godfrey, P.C. and Hill, C.W.L. (1995). The problem of unobservables in strategic management research. *Strategic Management Journal*, 16(7), pp.519-33.

Goetz, J.P. and LeCompte, M.D. (1984). *Ethnography and Qualitative Design in Educational Research*. Orlando, FL: Academic Press.

Gourlay, S. (2006). Conceptualizing knowledge creation: a critique of Nonaka's theory. *Journal of Management Studies*, 43(7), pp.1415-36.

Grabher, G. (2004). Temporary architectures of learning: knowledge governance in project ecologies. *Organization Studies*, 25(9), pp.1491-514.

Grant, M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, 17(Winter Special Issue), pp.109-22.

Grunow, D. (1995). The research design in organization studies: problems and prospects. *Organization Science*, 6(1), pp.93-103.

Guba, E.G. and Lincoln, Y.S. (1994). Competing paradigms in qualitative research. In N.K. Denzin and Y.S. Lincoln, eds. *Handbook of Qualitative Research*. London: Sage, pp.105-17.

Gulliver, F.R. (1987). Post-project appraisal pay. *Harvard Business Review*, 65(2), pp.128-32.

Hamel, G. (1991). Competition for competence and inter-partner learning within international strategic alliances. *Strategic Management Journal*, 12(1), pp.83-104.

Harreld, J.B., O'Reilly, C.A. and Tushman, M.L. (2007). Dynamic capabilities at IBM: driving strategy into action. *California Management Review*, 49(4), pp.21-42.

Hartley, J. (2004). Case study research in C. Cassell and G. Symon, eds. *Essential guide to qualitative methods in organizational research*. London: Sage, pp.323-33.

Hayes, R., Wheelwright, S. and Clark, K. (1988). *Dynamic manufacturing: creating the learning organization*. New York, NY: The Free Press.

Hedberg, B. (1981). How organizations learn and unlearn?. In P.C. Nystorm and W.H. Starbuck, eds. *Handbook of organizational design*. London: Oxford University Press, pp. 8-27.

Helfat, C.E. and Peteraf, M.A. (2003). The dynamic resource-based view: capability lifecycles. *Strategic Management Journal*, 24(10), pp.997-1010.

Helfat, C.E., Finkelstein, S., Mitchell, W., Peteraf, M., Singh, H., Teece, D. And Winter, S. (2007). *Dynamic capabilities: understanding strategic change in organizations*. Oxford: Blackwell.

Higgs, J. (2001). Charting standpoints in qualitative research. In H.B. Armstrong, J. Higgs and D. Horsfall, eds. *Critical moments in qualitative research*. Oxford: Butterworth-Heinemann, pp.44-67.

Homans, G.C. (1950). *The human group*. New York, NY: Harcourt Brace.

Honey, P. and Mumford, A. (1982). *The manual of learning styles.* Maidenhead: Peter Honey.

Huber, G.P. (1991). Organizational learning: the contributing processes and the literatures. *Organization Scinece*, 2(1), pp.88-115.

Huysman, M. (1999). Balancing biases: a critical review of the literature on organizational learning. In M. Easterby-Smith, L. Araujo, J.G. Burgoyne, eds. *Organizational learning and the learning organization*. London: Sage, pp. 59-74.

Hycner, R.H. (1985). Some guidelines for the phenomenological analysis of interview data. *Human Studies*, 8(3), pp.279-303.

Jansen, J.J.P., van de Bosch, F.A.J. and Volberda, H.W. (2005). Managing potential and realized absorptive capacity: how do organizational antecedents matter?. *Academy of Management Journal*, 48(6), pp.999-1015.

Jones, O. (2006). Developing absorptive capacity in mature organizations: the agent's tole. *Management Learning*, 37(3), pp.355-76.

Jorna, R. (1998). Managing knowledge. *Semiotic Review of Books*, 9(2). Available at: http://projects.chass.utoronto.ca/semiotics/srb/managingknow.html [Accessed 25 July 2011]

Kaplan, S. and Henderson, R.M. (2005). Inertia and incentives: bridging organizational economics and organizational theory. *Organization Science*, 16(5), pp.509-21.

Keen, A. (1975). *A primer in phenomenological psychology*. New York, NY: Reinhart and Wilson Inc.

Kim, D.H. (1993). The link between individual and organizational learning. *Sloan Management Review*, 35(1), pp.37-50.

Kogut, B. (1991). Joint ventures and the option to expand and acquire. *Management Science*, 37(1), pp.19-33.

Kolb, D.A. (1973). On management and the learning process. *Sloan school Working Paper*, pp.652-73.

Kuhn, T.S. (1970). *The structure of scientific revolution*. 2nd ed. Chicago, IL: The University of Chicago Press.

Ladoi, A.A. and Wilson, M.C. (1994). Human resource systems and sustained competitive advantage: a competency-based perspective. *Academy of Management Review*, 19(4), pp.699-727.

Lado, A.A. and Zhang, M.J. (1998). Expert systems, knowledge development and utilization, and sustained competitive advantage: a resource-based model. *Journal of Management*, 24(4), pp.489-509.

Lado, A.A., Boyd, N.G. and Wright, P. (1992). A sustainable competency-based model of sustained competitive advantage: toward a conceptual integration. *Journal of Management*, 18(1), pp.77-91.

Lave, J. and Wenger, E. (1991). *Situated learning: legitimate peripheral participation*. Cambridge: Cambridge University Press.

Lave, J. (1991). Situated learning in communities of practice. In L. Resnicak, J. Levine and S. Teasley, eds. *Perspectives on socially shared cognition*, Washington D.C., DC: American Psychological Association, pp.63-82.

Lavie, D. (2006). The competitive advantage of interconnected firms: an extension of the resource-based view. *Academy of Management Review*, 31(3), pp.638-58.

Lawrence, P. and Lorsch, J. (1967). *Organization and environment: managing differentiation and integration*. Homewood, IL: Irwin.

Lincoln, Y.S. and Guba, E.G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.

Lincoln, Y.S. and Guba, E.G. (2000). The only generalization is: there is no generalization. In R. Gomm, M. Hammersley and P. Foster, eds. *Case study method: key issues, key texts*. Thousand Oaks, CA: Sage.

Lipshitz, R., Popper, M. (2000). Organizational learning in a hospital. *The Journal of Applied Behavioral Science*, 36(3), pp.345-61.

Lipshitz, R., Popper, M. and Friedman, V.A. (2002). Multi-facet model of organizational learning. *The Journal of Applied Behavioral Science*, 38(1), pp.78-98.

Lockett, A., Thompson, S. and Morgenstern, U. (2009). The development of the resource-based view of the firm: a critical appraisal. *International Journal of Management Reviews*, 11(1), pp.9-28.

Macher, J.T. and Mowery, D.C. (2009). Measuring dynamic capabilities: practices and performance in semiconductor manufacturing. *British Journal of Management*, 20(Special Issue), pp. S41-62.

Makadok, R. (2001). Toward a synthesis of the resource-based and dynamic capability views of rent creation. *Strategic Management Journal*, 22(5), pp.387-401.

March, J.G. and Olsen, J.P. (1975). The uncertainty of the past: organizational learning under ambiguity. *European Journal of Political Research*, 3(2), pp.147-71.

March, J.G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, 2(1), pp.71-87.

Marshall, N. (2007). Team mental models in action: a practice-based perspective. *CoDesign*, 3(1), pp.29-36.

Marshall, N. (2008). Cognitive and practice-based theories of organizational knowledge and learning: incompatible or complementary?. *Management Learning*, 39(4), pp.413-35.

Mason, J. (2002). *Qualitative researching*. London: Sage.

McKelvie, A. and Davidsson, P. (2009). From resource base to dynamic capabilities: an investigation of new firms. *British Journal of Management*, 20(Special Issue), pp.S63-80.

McWilliams, A. and Smart, D.L. (1995). The resource-based view of the firm: does it go far enough in shedding the assumptions of S-C-P paradigm? *Journal of Management Inquiry*, 4(4), pp.309-16.

Miles, M.B. and Huberman, A.M. (1994). *Qualitative data analysis: an expanded sourcebook*. 2nd ed. Thousand Oaks, CA: Sage.

Miles, R. and Snow, C. (1978). *Organizational strategy, structure and process*. New York, NY: McGraw-Hill.

Miller, D. and Shamsie, J. (1999). Strategic responses to three kinds of uncertainty: product line simplicity at the Hollywood film studios. *Journal of Management*, 25(1), pp.97-116.

Milliken, F.J. (1987). Three types of perceived uncertainty about the environment: state, effect and response uncertainty. *Academy of Management Review*, 12(1), pp.133-43.

Mintzberg, H. (1979). An emerging strategy of direct research. *Administrative Science Quarterly*, 24(4), pp.582-9.

Moliterno, T.P. and Wiersema, M.F. (2007). Firm performance, rent appropriation and the strategic resource divestment capability. *Strategic Management Journal*, 28(11), pp. 1065-87.

Nelson, R.R. and Winter, S.G. (1982). *An evolutionary theory of economic change*. Cambridge, MA: Harvard University Press.

Newell, S., Robertson, M., Scarbrough, H. and Swan, J. (2002). *Managing knowledge work*. Basingstoke: Palgrave.

Newey, L.R. and Zahra, S.A. (2009). The evolving firm: how dynamic and operating capabilities interact to enable entrepreneurship. *British Journal of Management*, 20(Special Issue), pp.S81-100.

Nicolini, D. and Meznar, M.B. (1995). The social construction of organizational learning: conceptual and practical issues in the field. *Human Relations*, 48(7), pp.727-46.

Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*, 5(1), pp.14-37.

Nonaka, I. and Konno, N. (1998). The concept of 'Ba': building a foundation for knowledge creation. *California Management Review*, 40(3), pp.40-54.

Nonaka, I. and von Krogh, G. (2009). Tacit knowledge and knowledge conversion: controversy and advancement in organizational knowledge creation theory. *Organization Science*, 20(3), pp.635-52.

Nonaka, I., von Krogh, G. and Voelpel, S. (2006). Organizational knowledge creation theory: evolutionary paths and future advances. *Organization Studies*, 27(8), pp.1179-1208.

Oliver, D.G., Serovich, J.M. and Mason. T.L. (2005). Constraints and opportunities with interview transcription: towards reflection in qualitative research. *Social Forces*, 84(2), pp.1273-89.

Oliver, J. (2009). Continuous improvement: role of organizational learning mechanisms. *International Journal of Quality and Reliability Management*, 26(6), pp.546-63.

Orlikowski, W.J. (2002). Knowing in practice: enacting a collective capability in distributed organizing. *Organization Science*, 13(3), pp.249-73.

Patton, M.Q. (1997). *How to use qualitative methods in evaluation*. London: Sage.

Patton, M.Q. (2002). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sage.

Penrose, E.T. (1959). *The theory of the growth of the firm*. Oxford: Oxford University Press.

Pentland, B.T. and Feldman, M.S. (2005). Organizational routines as a unit of analysis. *Industrial and Corporate Change*, 14(5), pp.793-815.

Peteraf, M. (1993). The cornerstone of competitive advantage: a resource-based view. *Strategic Management Journal*, 14(3), pp.179-91.

Peteraf, M.A. and Barney, J.B.(2003). Unraveling the resource-based tangle. *Managerial and Decision Economics*, 24(4), pp.309-23.

Pierce, J.L., Boerner, C.S. and Teece, D.J. (2008). Dynamic capabilities, competence and the behavioral theory of the firm. In D.J. Teece, ed. *Technological know-how, organizational capabilities and strategic management: business strategy and enterprise development in competitive environments.* Singapore: World Scientific Publishing, pp. 81-95.

Pitelis, C.N. (2007). A behavioral resource-based view of the firm: the synergy of Cyert and March (1963) and Penrose (1959). *Organization Science*, 18(3), pp.478-90.

Plaskoff, J. (2003). Intersubjectivity and community building: learning to learn organizationally. In M. Easterby-Smith and M. Lyles, eds. *Handbook of organizational learning and knowledge management*. Oxford: Blackwell, pp. 161-84.

Pleasants, N. (2003). A philosophy for the social sciences: realism, pragmatism, or neither? *Foundations of Science*, 8(1), pp.69-87.

Popper, M. and Lipshitz, R. (1998). Organizational learning mechanisms: a structural and cultural approach to organizational learning. *The Journal of Applied Behavioral Science*, 34(2), pp.161-79.

Popper, M. and Lipshitz, R. (2000). Organizational learning: mechanisms, culture and feasibility. *Management Learning*, 31(2), pp.181-96.

Porter, M.E. (1981). The contributions of industrial organizations to strategic management. *Academy of Management Review*, 6(4), pp.609-20.

Prahalad, C.K. and Hamel, G. (1990). The core competence of the corporation. *Harvard Business Review*, 68(3), pp.79-91.

Priem, R.L. and Butler, J.E. (2001a). Is the resource-based 'view' a useful perspective for strategic management research?. *Academy of Management Review*, 26(1), pp.22-40.

Priem, R.L. and Butler, J.E. (2001b). Tautology in the resource-based view and the implications of externally determined resource value: further comments. *Academy of Management Review*, 26(1), pp.57-66.

Punch, K.F. (1998). *Introduction to Social Research*. London: Sage.

Remenyi, D., Williams, B., Money, A. and Swartz, E. (1998). *Doing research in business and management: an introduction to process and method*. London: Sage.

Rindova, V. P. and Fombrun, C. J. (1999). Constructing competitive advantage: the role of firm-constituent interactions. *Strategic Management Journal*, 20(8), pp. 691-710.

Roberts, J. (2006). Limits to communities of practice. *Journal of Management Studies*, 43(3), pp.623-39.

Rosenbloom, H.S. (2000). Leadership, capabilities and technological change: the transformation of NCR in the electronic era. *Strategic Management Journal*, 2(Special Issue), pp.1083-103.

Santos, A. and Powell, J.A. (2001). Effectiveness of push and pull learning strategies in the construction industry. *Journal of Workplace Learning*, 13(2), pp.47-56.

Schein, E.H. (1999). *Process consultation revisited: building the helping relationship*. Reading, MA: Addison-Wesley.

Schlemmer, F. and Webb, B. (2008). The managing director and the development of dynamic capabilities: an application of enactment theory. *International Journal of Organizational Analysis*, 16(1/2), pp.109-37.

Schofield, J.W. Increasing the generalisability of qualitative research. In R. Gomm, M. Hammersley and P. Foster, eds. *Case study method: key issues, key texts.* Thousand Oaks, CA: Sage, pp.69-97.

Schwandt, T.A. (2000). Three epistemological stances for qualitative inquiry: interpretivism, hermeneutics and social constructionism. In N.K. Denzin and Y.S. Lincoln, eds. *Handbook of Qualitative Research*, 2nd ed. Thousand Oaks, CA: Sage.

Senge, P. (1990). *The fifth discipline: the art and practice of the learning organization*. New York, NY: Doubleday.

Sfard, A. (1998). On the metaphors for learning and the dangers of choosing just one. *Educational Researcher*, 27(2), pp.4-13.

Silverman, D. (2001). *Interpreting qualitative data: methods for analyzing talk, text and interaction*. 2nd ed. London: Sage.

Simon, H.A. (1976). From substantive to procedural rationality. In S.J. Latsis, ed. *Method and appraisal in economics.* Cambridge: Cambridge University Press, pp. 129-48.

Simon, H.A. (1991). Bounded rationality and organizational learning. *Organization Science*, 2(1), pp.125-34.

Sirmon, D.G., Hitt, M.A. and Ireland, R.D. (2007). Managing firm resources in dynamic environments to create value: looking inside the black box. *Academy of Management*, 32(1), pp.273-92.

Smircich, L. and Stubbart, C. (1985). Strategic management in an enacted world. *Academy of Management Review*, 10(4), pp.724-36.

Smith, H.A. and McKeen, J.D. (2002). Instilling a knowledge-sharing culture. In OLKC (The Community of Organizational Learning, Knowledge and Capabilities), *3rd European Conference on Knowledge, Learning and Capabilities*. Athens, Greece 5-6 April 2002. Available at: http://www2.warwick.ac.uk/fac/soc/wbs/conf/olkc/archive/oklc3/papers/ id25.pdf [Accessed 25 July 2011]

Stacey, R. (2010). *Strategic management and organizational dynamics: the challenge of complexity to ways of thinking about organizations.* Harlow: Financial Times Prentice Hall.

Stacey, R.D. (2001). *Complex responsive processes in organizations: learning and knowledge creation*. New York, NY: Routledge.

Stake, R.E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.

Storey, J. and Salaman, G. (2006). *Managers of innovation: insights on making innovation happen*, Malden, MA: Blackwell.

Swan, J., Newell, S., Scarbrough, H. and Hislop, D. (1999). Knowledge management and innovation: networks and networking. *Journal of Knowledge Management*, 3(4), pp.262-75.

Symon, G. and Cassell, C. (1998). Reflections on the use of qualitative methods. In G. Symon and C. Cassell, eds. *Qualitative methods and analysis in organizational research.* London: Sage, pp.1-9.

Teece, D. and Pisano, G. (1994). The dynamic capabilities of firms. *Industrial and Corporate Change*, 3(3), pp.537-56.

Teece, D.J. (2007). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), pp.1319-50.

Teece, D.J. (2011). Knowledge assets, capabilities and the theory of the firm. In M. Easterby-Smith and M. Lyles, eds. *Handbook of organizational learning and knowledge management*. 2nd ed. Chichester: Wiley, pp.505-34.

Teece, D.J. and Pisano, G. and Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), pp.509-33.

Thomas, W.I. and Thomas, D.S. (1928). *The child in America: behavior problems and programs*. New York, NY: Alfred A. Knopf.

Thompson, A.A. and Strickland, A.J. (2003). *Strategic management: concepts and cases.* 13th ed. New York, NY: McGraw Hill/Irwin.

Thompson, C.J., Locander, W.B. and Polio, H.R. (1989). Putting consumer experience back into consumer research: the philosophy and method of existential phenomenology. *Journal of Consumer Research*, 16(2), pp.133-46.

Todorova, G. and Durisin, B. (2007). Absorptive capacity: valuing a reconceptualization. *Academy of Management Review*, 32(3), pp.774-86.

Tranfield, D. and Smith, S. (1998). The strategic regeneration of manufacturing by changing routines. *International Journal of Operations and Production Management*, 18(2), pp.114-29.

Tripsas, M. and Gavetti, G. (2000). Capabilities, cognition and inertia: evidence form digital imaging. *Strategic Management Journal*, 21(10/11), pp.1147-61.

Tsai, W. (2002). Social structure of 'coopetition' within a multiunit organization: coordination, competition and intraorganizational knowledge sharing. *Organization Science*, 13(2), pp.179-90.

Tsoukas, H. (1996). The firm as a distributed knowledge system: a constructionist approach. *Strategic Management Journal*, 17(Special Issue), pp.11-25.

Usher, R. and Bryant, I. (1989). *Adult education as theory, practice and research*. London: Routledge.

Vera, D. and Crossan, M. (2004). Theatrical improvisation: lessons for organizations. *Organization Studies*, 25(5), pp.727-49.

Vera, D., Crossan, M. and Apaydın, M. (2011). A framework for integrating organizational learning, knowledge, capabilities and absorptive capacity. In M. Easterby-Smith and M. Lyles, eds. *Handbook of organizational learning and knowledge management*. 2nd ed. Chichester: Wiley, pp.153-82.

Verona, G. and Ravasi, D. (2003). Unbundling dynamic capabilities: an exploratory study on continuous product development. *Industrial and Corporate Change*, 12(3), pp.577-606.

Virany, B., Tushman, M.L. and Romanelli, E. (1992). Executive succession and organization outcomes in turbulent environments: an organizational learning approach, *Organization Science*, 3(1), pp.72-91.

von Krogh, G. (1998). Care in knowledge creation. *California Management Review*, 40(3), pp.133-53.

Wang, C.L. and Ahmed, P.K. (2007). Dynamic capabilities: a review and research agenda. *International Journal of Management Reviews*, 9(1), pp.31-51.

Weick, K.E. (1979). *The social psychology of organising*. 2nd ed. Reading, MA: Addison-Wesley.

Weick, K.E. (1991). The nontraditional quality of organizational learning. *Organization Science*, 2(1), pp. 116-23.

Weick, K.E. (1995). *Sensemaking in organizations.* London: Sage.

Weick, K.E. and Bougon, M.G. (1986). Organizations as cognitive maps: charting ways to success and failure. In H.P. Sims and D.A. Gioia, eds. *The thinking organization*. San Francisco, CA: Jossey-Bass Publishers.

Wenger, E.C. and Snyder, W.M. (2000). Communities of practice: the organisational frontier. *Harvard Business Review*, 78(1), pp.139-45.

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), pp. 171-80.

Williamson, O.E. (1999). Strategy research: governance and competence perspectives. *Strategic Management Journal*, 20(12), pp.1087-103.

Wilson, A.J. and Hussey, D.H. (2010). What is individual quality? An evolutionary perspective. *Trends in Ecology and Evolution*, 25(4), pp.207-14.

Winter, S.G. (2003). Understanding dynamic capabilities. *Strategic Management Journal*, 24(10), pp. 991-5.

Yanow, D. (2000). Seeing organizational learning: a 'cultural' view. *Organization*, 7(2), pp.247-68.

Yin, R.K. (2003). *Case study research: design and methods*, 3rd ed. Thousand Oaks, CA: Sage.

Zahra, S.A., Sapienza, H.J. and Davidsson, P. (2006). Entrepreneurship and dynamic capabilities: a review, model and research agenda. *Journal of Management Studied*, 43(4), pp.917-55.

Zollo, M. and Verona, G. (2011). Understanding the human side of dynamic capabilities: towards a holistic model. In M. Easterby-Smith and M. Lyles, eds. *Handbook of organizational learning and knowledge management*. 2nd ed. Chichester: Wiley, pp.535-50.

Zollo, M. and Winter, S.G. (2002). Deliberate learning and the evolution of dynamic capabilities. *Organization Science*, 13(3), pp.339-51.