

**ORGANISATIONAL LEARNING AND TRANSFORMATIVE
CAPACITY: LEVERAGING COLLECTIVE KNOWLEDGE**

**BY
GAMAL MOHAMED MOHAMED SHEHATA
B.Com., M.Sc.**



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ABSTRACT

Abstract

A growing part of the literature on organisational learning sets out to describe how and why organisations learn. Nevertheless, a large number of the recent reviews on organisational learning address several gaps that challenge the future progress of the subject. A critical examination of the organisational learning literature was conducted to identify a number of gaps that exist in the field. These gaps include the fragmented nature of the subject itself, the fact that insufficient attention is being devoted to the cumulative progress of the field, and the theoretical or descriptive nature of major contributions in the field. The response to these gaps is in three integrated ways. *First*, this research complies with the critical need for rich empirical studies by carrying out an in-depth qualitative study that includes four different organisational contexts. *Second*, much value is placed on the cumulative development of the subject by submitting the basic conceptual perspectives that exist in Dixon's (1994) organisational learning cycle to an empirical examination. The Dixon (1994) organisational learning cycle is employed as an analytical instrument to examine the practice of organisational learning. In so doing, the conceptual trustworthiness of Dixon's (1994) model will be explored. *Third*, the Dixon (1994) model will be extended by linking it to what Garud and Nayyar's (1994) call 'transformative capacity' and hence, help to better comprehend the latter.

The intention is to examine the practice of organisational learning in four different organisations that demonstrate an interest in the phenomenon under investigation. These organisations vary in terms of structure, objectives, nature of business, management style, and geographical locations. The conceptual context of Dixon's (1994) organisational learning cycle guides this study in examining the practice of organisational learning in terms of the four-stage cycle. According to Dixon (1994), organisations that can create a learning cycle that promotes collective learning will be able to transform themselves in response to an internal need for change and in response to external constraints. The objective, therefore, is to examine the organisational learning cycle in terms of what Garud and Nayyar's (1994) name 'transformative capacity'. On the one hand, Dixon's (1994) model helps not only to understand a variety of organisational learning practices that are being carried out in an organisation but also to place these practices in the organisational learning cycle. On the other hand, Garud and Nayyar's (1994) concept of 'transformative capacity' helps to understand the way by which an organisation assimilates and utilises collective knowledge to generate business opportunities and ideas. The concept of transformative capacity primarily strengthens an organisation's ability to generate business opportunities from exploiting its

store of internal knowledge. The basic research questions are as follows: How do the participant organisations develop the capability for organisational learning? What are the main features that describe an organisation's approach to organisational learning? What are the main reasons for performing a given set of organisational learning practices within an organisation? How do these organisations assimilate and exploit collective knowledge to create and to recognise new business opportunities and ideas? How do these organisations initiate their efforts to establish organisational learning and knowledge creation as specific management practices to maintain a long-term business success?

These questions are addressed by carrying out a comprehensive exploratory study that incorporates four different companies. Company (A) is located in the UK and serves primarily in the financial service business. Company (B) is situated in the UK and works in the management consulting business. Company (C) is established in Egypt and operates in the auto assembly and manufacturing business. Company (D) is located in the UK and serves in the retailing business. The Dixon (1994) model is employed to explore the basic steps that each of these companies is going through to create the capability for organisational learning. The examination also touches on the different features that describe each company's approach to organisational learning. Besides, managers' own perspectives on the way(s) by which an organisation integrates and takes advantage of collective learning to achieve a sustainable business success are explored. Expanding Dixon's (1994) model by linking it to what Garud and Nayyar's (1994) name 'transformative capacity' helps to explain the results obtained from the case studies. This combination leads to the development of a systematic methodology that demands an examination of collective learning in each company. In addition, this systematic methodology helps to identify a number of processes that each company puts into practice to accelerate the capability for organisational learning.

A qualitative methodology has been employed to explore the practice of organisational learning in four companies. The case study approach was chosen to be the main research strategy. Data were gathered through in-depth interviews, informal interviews, documentation, and observation. The personal in-depth interviews with managers in participant companies were the primary methods for data collection. A semi-structured questionnaire was used to carry out the interviews. Throughout the empirical study particular attention was devoted to the context through which organisational learning is developed. A wide-ranging investigation to the whole process of organisational learning was carried out. All interviews were tape recorded and transcribed precisely. Huge amounts of data were then qualitatively coded to allow an identification of the main themes and categories. This classification was conducted in relation to the main objectives of the study. A detailed

literature review was conducted during all the stages of this study in order to broaden the conceptual understanding of the phenomenon and to strengthen the generalisation into a framework for the main findings of the study. Based on the results of the case studies and by relating these results to the literature, a framework was developed to explain the way by which organisations leverage the capability for organisational learning to sustainable business success. This framework was developed during the progress of this study and its causal links have not yet been established. In other words, this framework was built on managers' perspectives and hence, it should be considered as a tentative attempt. The principal argument behind this framework has been that the ability of organisations to achieve sustainable business success relates to their collective capacity to assimilate and to make the most of collective knowledge.

This study makes the following important contributions to the existing literature. *First*, the case studies results reveal that organisations learn to a varying extent from the everyday business operations. *Second*, this learning sometimes happens as a result of unintentional or informal learning activities. *Third*, collective learning empowers an organisation capacity to transform itself in a response to changes that happen in a dynamic business environment. *Fourth*, knowledge sharing is seen as an essential mean to avoid erosion of organisational memory due to personnel turnover and passage of time problems. *Fifth*, a large part of organisational learning takes place when organisational members are provided with an opportunity to reflect on past experience and to draw lessons from it. *Sixth*, an effective utilisation of information services strengthens an organisation's capacity not only to encode best practices and lessons learned but also to transfer knowledge and best practices from one place to another. *Seventh*, organisational learning is increasingly seen as a central source of a competitive advantage particularly for organisations faced with rapid changes and work in a competitive business environment. The case studies results provide exploratory insights on the ways by which participant companies leverage the capability for collective learning to a sustainable competitive advantage. This study adds to the organisational learning literature by proposing a framework that draws an analytical description for the way by which organisations leverage collective learning to sustainable business success. This evidence should be validated through a future rich empirical study. This framework serves as a general guideline for those wishing to carry out this study.

CHAPTER ONE INTRODUCTION

Chapter One

Introduction

1.1 Introduction.

This chapter provides an overview of the current study by outlining the aims, background, and plan of the study.

1.2 Aims of the Study.

It is intended to investigate the practice of organisational learning within four different organisations that demonstrate an interest in the subject of this study. In particular, not only to examine the organisational learning practices that are being carried out in each organisation but also to place these practices in the organisational learning cycle. To achieve this, the basic conceptual perspectives that reside in Dixon's (1994) collective learning cycle are utilised. Dixon's (1994) organisational learning cycle helps to better understand the collective learning process in terms of the four-stage cycle. Dixon's (1994) model presumes that organisations, which create a learning cycle that promotes collective learning, will be able to transform themselves in response to an internal need for change and in response to external constraints. Thus, it is intended to examine the organisational learning cycle in terms of what Garud and Nayyar's (1994) call 'transformative capacity'. The transformative capacity concept helps to better understand the ways by which participant organisations assimilate and exploit collective knowledge to generate and to recognise business opportunities and ideas. According to Garud and Nayyar's (1994) concept of 'transformative capacity', organisations that assimilate and exploit internally developed knowledge will be better placed to sustain and to strengthen commercial ends.

The intention thus is to achieve three main objectives. *First*, not only to explore the different organisational learning practices that are being carried out in an organisation but also to place these practices in the organisational learning cycle. *Second*, to extend Dixon's (1994) model by linking it to what Garud and Nayyar's (1994) name 'transformative capacity' and hence, helping to better understand the latter. *Third*, to generate a framework that explains the way by which organisations leverage the capability for organisational learning to a long-term business success. By a long-term business success, it is meant the favourable outcomes that differentiate the enterprise, its processes, and its products and services from those of its competitors in the eyes of its customers. It is an attempt to understand how and why organisations choose organisational learning to enhance business practices and routines and consequently, to generate competitive values. This attempt places

much value on discovering the processes that strengthen organisations to achieve business success in the new competitive milieu. It is a need that has created a centre of attention among a large number of scholars (see for example, Black & Boal, 1994; Clark, 1987; Cockerill, 1994; Cohen & Levinthal, 1994; Cole, 1998; Collis, 1996; De Leo, 1994; Sampler, 1998; Stalk *et al.*, 1992; Turner & Crawford, 1994). The emerging framework represents an exploratory attempt. It draws on managers' perspectives and relates these perspectives to the literature. To achieve the above objectives, an answer is sought to the following basic questions: How do organisations develop the capability for organisational learning? What are the main features that describe each organisation's approach to organisational learning? What are the main reasons for performing a given set of organisational learning practices within an organisation? How do organisations assimilate and exploit collective knowledge to create and to recognise business opportunities and ideas? How do organisations initiate their efforts to establish organisational learning and knowledge creation as specific management practices to maintain a sustainable business success?

The intention is to make major contributions to the existing knowledge of the field from conceptual and empirical perspectives. From a conceptual view, the current study establishes a systematic framework in order to examine the practice of organisational learning. This framework exploits the basic conceptual steps that exist in Dixon's (1994) collective learning cycle. This conceptual framework is further broadened to include what Garud and Nayyar's (1994) entitle 'transformative capacity'. Not only does this help to better understand the collective learning process in terms of the four-stage cycle but also it provides the basis for comprehending the mechanisms by which organisations assimilate and exploit collective knowledge to create and to recognise business opportunities. Another important contribution from a conceptual perspective results from combining participants' meanings with the literature to depict a framework that explains the way by which organisations leverage the capability for organisational learning to sustainable business success. The contribution of this research to the organisational learning literature builds on an exploration of the learning processes, in terms of the four-stage cycle, within four different organisational contexts. From an empirical perspective, the current study examines and documents the basic steps of the organisational learning cycle in four different organisations. In so doing, this achieves a better place from which to explore the usefulness of Dixon's (1994) collective learning cycle as an analytical instrument not only to understand how organisational learning takes place but also to describe each organisation's approach to organisational learning. This requires extensive data and therefore, the case study approach in which the qualitative inquiry dominates, is adopted (Denzin & Lincoln, 1994, 1998).

Overall, the intention is to fill a number of gaps that currently exist in the organisational learning literature. This involves carrying out an in-depth empirical study on the organisational learning phenomenon. This empirical study includes four different organisations that demonstrate an interest in the phenomenon under investigation. In that way, the intention is to meet with the crucial need for a rich empirical research in the field. The basic conceptual perspectives that exist in Dixon's (1994) collective learning cycle are also used as an analytical instrument to examine how organisations really learn in terms of the four-stage cycle. It is also intended to expand Dixon's (1994) model by linking it to what Garud and Nayyar's (1994) call 'transformative capacity' and thus, helps to better understand the latter. Garud and Nayyar's (1994) concept of 'transformative capacity' helps to better understand the way by which an organisation assimilates and exploits collective knowledge to achieve competitive values. In this manner, this research meets with the critical need for more integrative work on the subject; an integrative work that benefits from and adds to the cumulative progress of the subject (Barnsley *et al.*, 1998; DiBella & Nevis, 1998; Edmondson, 1999). It also exercises a process of linking participants' perspectives with the literature to generate a framework for the phenomenon. This framework is an attempt to explain the way in which organisations leverage the capability for organisational learning to sustainable business success. By relating participants' views to the literature and by linking a number of basic conceptual perspectives appearing in the literature, an attempt is made to lessen the fragmented nature of the subject.

1.3 Background.

Organisational learning as a subject of study has received an increased interest amongst scholars in the 1990s with regard to the number of books and articles that have researched the subject (Ball, 1991; Finger & Buergin, 1998; Flood, 1998; Mabey & Lyles, 1994; Meen & Keough, 1992; Mumford, 1994; Pedler & Aspinwall, 1996; Senge, 1994; Sinkula *et al.*, 1997). Despite the increased interest in the organisational learning phenomenon, there is a little consensus on its definition, perspective, conceptualisation, and methodology (Lam, 1998; Tsang, 1997). This statement refers to an interesting dilemma in the organisational learning literature. This dilemma reveals that although the literature on the topic is considerably increasing, there is no agreement within and between disciplines on what organisational learning is and how it takes place (Dodgson, 1993; McGill, *et al.*, 1992). This has, in turn, reinforced the present exploration of a number of opportunities for carrying out a research in this area. This process has started by identifying a number of existing gaps in the literature. From a preliminary review of the literature, it is evident that there are a number of gaps in the area that need to be observed closely. These gaps include the fragmented nature of the subject, a conceptual confusion amongst scholars and practitioners,

scholars' tendency toward over-simplification, less emphasis on examining learning behaviour across various work groups within the same organisation, and the theoretical or descriptive nature of major contributions in the area.

These gaps suggest that organisational learning as a subject of research has even more promise. This has promoted the decision to examine the practice of organisational learning phenomenon in a real context through integrating a number of basic perspectives appearing in the literature (Nicolini & Mezner, 1995). This attempt is more likely to create a potential for continuing the study of the organisational learning subject (Dodgson, 1993). The integration between the concepts and sub-concepts that reside in Dixon's (1994) collective learning cycle with what Garud and Nayyar's (1994) call 'transformative capacity' provides the basis for a broader analytical instrument. This analytical instrument facilitates the advance of different levels of analysis. The clear definitions and explicit rationale of the two models strengthen this analytical base. However, it has to be acknowledged that the diversity of concepts does not necessarily indicate competing descriptions of the organisational learning phenomenon but this may revert to the fact that these concepts encapsulate different edges of a many-sided phenomenon, which is organisational learning.

Consequently, integrating a variety of perspectives to examine the practice of organisational learning represents a key strand in carrying out this study. The theoretical nature of major contributions in the area also opens many opportunities for further rich empirical studies on the subject (Easterby-Smith, 1997; Sullivan & Nonaka, 1986). Conducting a rich empirical study that subjects existing models to empirical examination so as to validate their conceptual trustworthiness, is also seen as a core strand not only of this study but also for the future development of the field in general (Collin, 1997; Gallagher & Fellenz, 1999). The extensive empirical data serves as the basis for further development in the state of the art of the subject. Because of the need for rich primary data, the case study has been chosen as the main research approach and the in-depth interviews to operate as the core tools for data gathering.

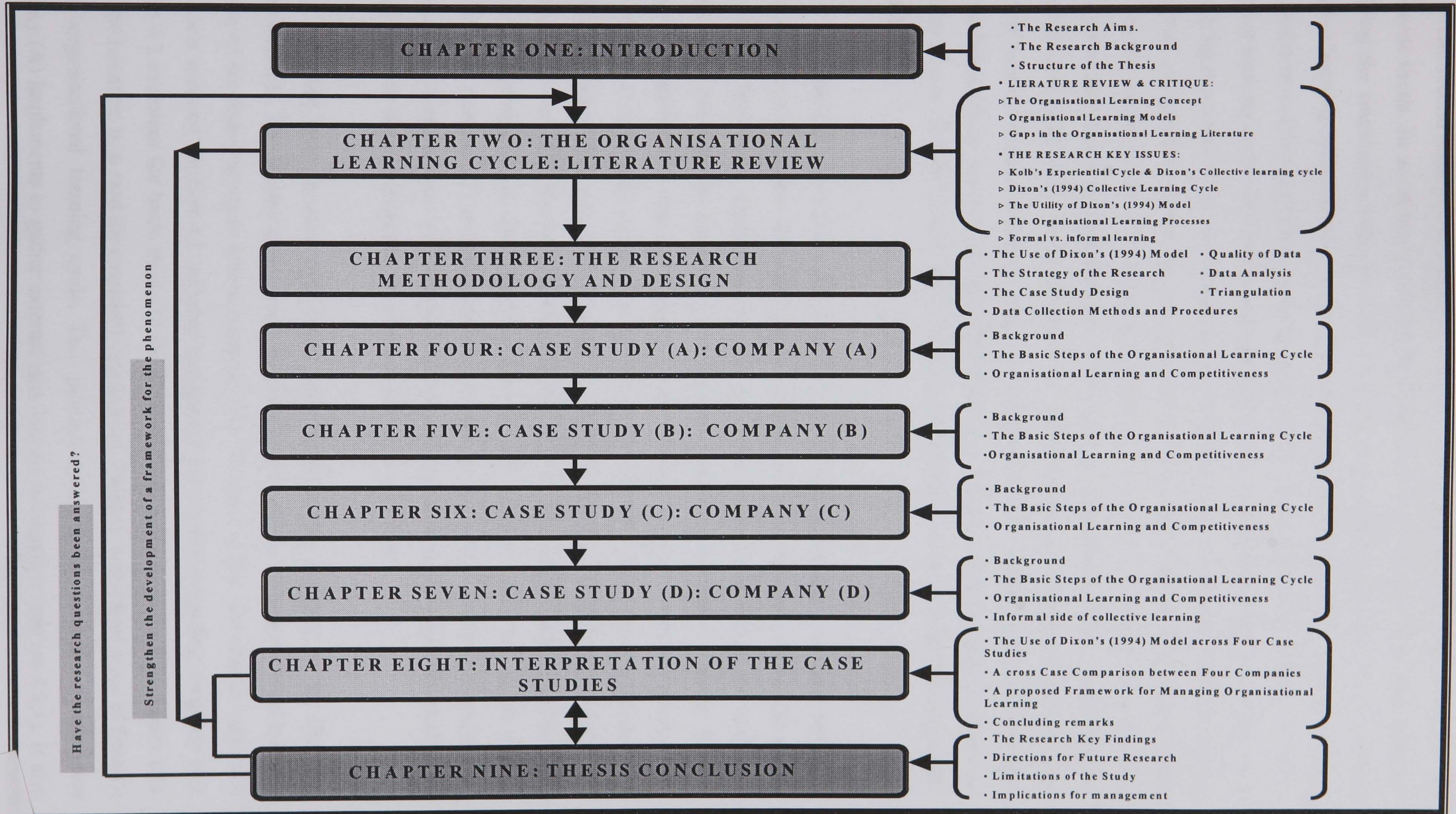
Although a considerable amount of writings on the subject proposed organisational learning as a critical basis for organisational change and business success matters, little attention was given to understanding how organisations really function and learn (Adams *et al.*, 1998; Anderson *et al.*, 1994; Lyles *et al.*, 1996; Sparrow, 1998). Argyris (1996) pointed out that organisational learning is a critical component of managerial theory, because complexity can be managed through learning. Dodgson (1993, p 390) also claimed that the competitive value of learning is very high and research into the area is likely to increase in

topicality. Nonaka (1991) argued that in an economy, which is characterised by uncertainty, knowledge is one sure source for competitive advantage. As organisations intend to sustain and to strengthen a competitive advantage, organisational learning increasingly comes out as a central issue (Argote *et al.*, 1990; Johannessen *et al.*, 1997). Understanding how organisations genuinely create the capability for organisational learning and how they leverage this capability to achieve competitiveness are thus considered as other core strands of this study. Drawing on participants' own views, a reasonable part of the discussion will thus be targeted to explore the ways in which organisations think they leverage the capability for organisational learning to a sustainable business success.

1.4 Plan of the Study and Thesis Structure.

It is the intention of the researcher to accomplish the previous objectives by examining the practice of organisational learning in an organisational context drawing on four case studies. The current thesis is structured into nine chapters. Figure 1.1 below depicts an overview of the research planning process and thesis structure. **Chapter one** lays the foundations for this thesis. It includes the aims of the research (section 1.2), the research background (section 1.3), and the thesis structure (section 1.4). After discussing the foundations for this study in chapter one, **Chapter two** reviews the relevant literature and also, provides the conceptual contribution to the knowledge of the field. This is done by addressing two main parts in relation to the existing literature. These are a critical literature review and the conceptual context for the thesis. The first part (section 2.2) reflects the intention to review the literature on organisational learning, not only to assess the state of the art of the field, but also to identify a number of existing gaps in the field. In particular, this part examines the organisational learning concept (section 2.2.1), reviews a number of organisational learning models (Section 2.2.2), and addresses a number of existing gaps in the area (2.2.3). This part also explains the way in which the response to these gaps is made.

Figure 1.1: The Research Planning Process and Thesis Structure.



The second main part of chapter two (section 2.3) explains the theoretical context for the current thesis. In so doing, a number of topics will be discussed. This part starts by describing the relationship between Kolb's (1984) experiential cycle and Dixon's (1994) collective learning cycle (section 2.3.1). This part proceeds to discuss the basic conceptual steps that exist in Dixon's (1994) model (section 2.3.2). The utility of using Dixon's (1994) collective learning cycle will also be addressed (section 2.3.3). This part moves on to explain the learning processes in an organisational context (section 2.3.4). Section 2.3.5 touches on the formal vs. informal dimension of organisational learning. Section 2.3.6 places much focus on the social nature of knowledge. Section 2.3.7 explains a number of conceptual perspectives that reside in Shrivastava's (1983) model. Shrivastava (1983) model will be utilised to shed more light on the emergent vs. deliberate nature of learning. In that way, there will be a better opportunity to place much emphasis on the nature of informal learning that was left out the context of Dixon's (1994) model. A critical and chronological review of a number of core concepts and models of the organisational learning is enclosed in appendix (A) and (B).

Chapter three introduces the research methodology and design. The main objective of this chapter is to outline the methodology strategy for the empirical part of this thesis. This chapter begins by explaining the use of Dixon's (1994) model as an analytical instrument to structure the presentation of the case studies in this thesis (section 3.2). It moves on to present the case study approach as the main research strategy (section 3.3). After that, the case study design and criteria for establishing the empirical quality are introduced (section 3.4) and then proceeds to describe the data collection methods and procedures (section 3.5). Section 3.6 discusses the issue of the quality of primary data of this study. A discussion of the data analysis mechanism that has been adopted in the current study follows (section 3.7) and the chapter concludes by explaining the use of triangulation in the existing study (section 3.8). Chapters four to seven present the case studies' results and analyse them for their relevance to the research questions and aims.

Chapter four presents case study (A). Company (A) operates in the financial service business. The chapter mainly examines the actual practice of organisational learning in terms of the four-step cycle within company (A). To achieve this, the chapter addresses three main sections. Section 4.1 includes background information regarding company (A). Section 4.2 examines the basic stages of the organisational learning cycle in company (A). Here, the intention is to read the empirical data through the basic conceptual steps of Dixon's (1994) organisational learning cycle. This process involves the various activities that company (A) implements to gather external and internal information (section 4.2.1). It also

discovers the different techniques that company (A) puts into action to integrate information into the entire work context (section 4.2.2). In addition, it covers the diverse mechanisms that company (A) employs to make a collective interpretation from new information (section 4.2.3). This process is further expanded to incorporate the different processes that company (A) puts into effect to encourage organisational members to act based on a collectively interpreted meaning (section 4.2.4). Drawing on managers' views, section 4.3 of chapter four looks at the way in which company (A) assimilates and exploits collective knowledge to sustain and to strengthen commercial ends.

Chapter five introduces case study (B) outcomes. Company (B) mainly serves in the management consulting business. The intention is to examine the actual organisational learning practices that are being carried out in company (B) and to place these practices in the organisational learning cycle. The chapter covers three main sections. Section 5.1 presents a background to company (B). Section 5.2 explains the various stages that company (B) experiences to develop the organisational learning cycle. This task is built upon the use of Dixon's (1994) four-stage model. Stage one (section 5.2.1) touches on the different methods that company (B) puts into operation to generate internal and external information. Stage two (section 5.2.2) explains the various mechanisms that company (B) puts in place to integrate new information into the overall organisational context. Stage three (section 5.2.3) focuses on the different practices that company (B) implements to encourage organisational members to make collective interpretations from new information. Stage four (section 5.2.4) outlines the diverse processes that company (B) employs to strengthen organisational members to act based on shared meanings. Drawing on managers' perspectives, section 5.3 of chapter five conceptualises the way in which company (B) assimilates and exploits collective knowledge to generate competitive outcomes.

Chapter six brings into focus the case study (C) results. Company (C) primarily works in the auto assembly and manufacturing industry. This chapter examines the practice of organisational learning inside company (C). In so doing, significant explanation is given to the way by which company (C) creates the capability for organisational learning. Chapter six also describes the way by which company (C) employs collective learning to accomplish commercial ends. This chapter is thus organised into three main sections. Section 6.1 introduces background information on company (C). Section 6.2 seeks to explore the basic steps that constitute the organisational learning cycle. Here, chapter six (section 6.2.1) focuses on examining the various tools that company (C) implements to acquire internal and external information. Chapter six (section 6.2.2) also looks at the diverse mechanisms that company (C) puts into practice to integrate new information into the whole organisational

context. The examination (section 6.2.3) is further targeted to highlight the techniques that company (C) puts into action to encourage organisational members to make collective interpretations from new information. The discussion (section 6.2.4) also outlines the different activities that company (C) performs to encourage organisational members to act based on collectively interpreted meanings. Drawing on managers' views, section 6.3 of chapter six highlights the competitive values that result from practising organisational learning within company (C).

Chapter seven is devoted to presenting the case study (D) outcomes. Company (D) essentially serves in the retailing business. The chapter starts (section 7.1) by presenting background information regarding company (D). The discussion moves on (section 7.2) to examine the four stages of the organisational learning cycle. This task will be conducted based on utilising the Dixon (1994) four-stage model. This process begins (section 7.2.1) by identifying the various methods of generating internal and external information that company (D) utilises. It continues (section 7.2.2) by looking at the different activities that company (D) makes use of to integrate new information into the overall business context. After that, (section 7.2.3) a number of mechanisms that company (D) puts into effect to make a collective interpretation from new information are pointed out. Through conducting this process, a number of problems that restrain the company's capability to make collective interpretations from information will be outlined. Section 7.2.4 explores the different activities that company (D) carries out to encourage organisational members to act based on collective learning. Here, a number of barriers will be touched upon, such as those that limit individuals' responsibility to take actions based on collectively interpreted meanings within company (D). Drawing on participants' views, chapter seven (section 7.3) will also cover the impact of a number of successful knowledge projects that are being carried out inside company (D) upon its sustainable competitive advantage. Section 7.4 examines the nature of informal learning inside company (D).

Chapter eight is devoted to bringing the various outcomes that result from the four case studies together through practising a process of cross case comparison. The chapter mainly compares (section 8.2) the four stages of the organisational learning cycle (Dixon, 1994) across four companies. That is, this section highlights the basic steps of each company's organisational learning cycle compared with that of other participant companies. This comparison will be presented in a table, followed by a discussion that explains the unique elements of each company's organisational learning cycle comparing these elements with other companies in the research sample. The discussion also touches upon a number of processes that accelerate the capability for organisational learning across four case studies.

Through the discussion of chapter eight, the various features that describe each company's approach to organisational learning will be explored. Section 8.3 thus places much emphasis on the formal vs. informal dimension of collective learning. Chapter eight also incorporates (section 8.4) a discussion of the core elements that construct the emerging framework. In addition, the discussion of chapter eight highlights (section 8.5) the common themes that can be drawn from four case studies in relation to the four-stage organisational learning cycle.

Chapter nine presents and recapitulates the findings emerging from the existing study. It addresses four main sections. Section 9.2 discusses the findings that emerge from the current study. Section 9.3 proposes a number of directions that open opportunities for future research in the area. Section 9.4 discusses a number of dimensions that make organisational knowledge difficult to trade outside the organisational boundaries. The dimensions of knowledge include tacitness (section 9.4.1), complexity (section 9.4.2), systemicity (section 9.4.3), and specificity (section 9.4.4). The chapter proceeds (section 9.5) to discuss a number of limitations that must be kept in mind when interpreting the findings of the current study. Section 9.6 draws a final conclusion for the thesis seeking to offer a number of implications for management practice.

CHAPTER TWO
**THE ORGANISATIONAL LEARNING CYCLE:
LITERATURE REVIEW**

Chapter Two

The Organisational Learning Cycle: Literature Review

2.1 Introduction.

In this chapter, the conceptual context for the thesis is explained drawing on the organisational learning literature. First, there is a critical examination of the organisational learning literature in order to shed light on the state of the art of the field. This critical examination incorporates a review of the organisational learning concept, an assessment of organisational learning models, and an analysis of a number of existing gaps in the field. The analytical examination of the literature acts as guide to build up a line of reasoning. The chapter then progresses to highlight the study key issues. This study employs the basic conceptual perspectives that exist in Dixon's (1994) organisational learning cycle in order to examine the practice of organisational learning in four different organisational contexts. Dixon's (1994) model provides valuable insights and concepts for the initial design of the research instruments. Dixon's (1994) model also guides the empirical study for this thesis, in that it provides both the assumptions and mechanisms by which the practice of organisational learning in terms of a four-stage cycle can be examined.

According to Dixon (1994), organisations that can create a learning cycle, which promotes collective learning, will be able to transform themselves in response to an internal need for change and in response to external constraints. The thesis, therefore, examines the organisational learning cycle in terms of what Garud and Nayyar's (1994) call 'transformative capacity'. Garud and Nayyar's (1994) concept of transformative capacity primarily strengthens an organisation's ability to generate business opportunities by exploiting its store of internal knowledge. This thesis sets out to examine the practice of organisational learning in four different organisations. In particular, it addresses the following questions: How do organisations develop the capability for organisational learning? What are the main features that describe an organisation's approach to organisational learning? What are the main reasons for performing a given set of organisational learning practices in an organisation? How do organisations assimilate and exploit collective knowledge to create and to recognise business opportunities and ideas? How do organisations initiate their efforts to establish organisational learning and knowledge creation as specific management practices to maintain a long-term business success?

Accordingly, this chapter is organised into two main parts. Part one examines the organisational learning literature not only to assess the state of the art of the area but also to

identify a number of gaps that this thesis intends to fill. Part one addresses a number of subjects. Section 2.2.1 looks at authors' perspectives on the concept 'organisational learning'. Section 2.2.2 reviews a number of organisational learning models. Section 2.2.3 discusses a number of existing gaps that influence the future progress of the field. Part one also touches on the way by which this thesis responds to these gaps. Part two deals with the thesis main issues. To highlight the conceptual context for this thesis, part two approaches a number of themes. Section 2.3.1 includes a brief discussion about the interconnection between Kolb's (1984) experiential learning cycle and Dixon's (1994) collective learning cycle. Section 2.3.2 explains the basic steps that reside in Dixon's (1994) collective learning cycle. Section 2.3.3 explores the utility of Dixon's (1994) collective learning cycle for this study. Section 2.3.4 looks at the processes of organisational learning. Section 2.3.5 touches on the formal vs. informal dimension of organisational learning. Section 2.3.6 places much focus on the social nature of knowledge. Section 2.3.7 synthesises a number of conceptual perspectives that reside in Shrivastava's (1983) model. Within the course of the case studies interpretation chapter of this thesis, Shrivastava (1983) model will be employed to shed more light on the emergent vs. deliberate nature of learning. In that way, there will be a better opportunity to discover the nature of informal learning that was left out the context of Dixon's (1994) model.

2.2 Organisational Learning: Literature and Critique.

The volume of publications on organisational learning has increased over the last ten years. Crossan and Guatto (1996), in their bibliographic review, found that during the 1990s 184 articles were written on organisational learning, compared with 50 articles during the 1980s, 19 articles during the 1970s, and three articles during the 1960s. Through reviewing the literature on the subject, a number of strands that influence the growing interest are identified. One strand for this interest comes from introducing the 'learning organisation' concept as an efficient solution to tackle problems resulting from increased competition. This notion has fascinated the interest of scholars and managers alike (Argyris, 1991; Casey, 1993; Cohen & Sproull, 1996; Dale, 1994; Easterby-Smith *et al.*, 1999; Elkjaer, 1999; Flood, 1999; Jin & Stough, 1998; Marquardt, 1996; Pedler *et al.*, 1991; Pedler & Aspinwall, 1998; Senge, 1990; Shaw *et al.*, 1998; Swieringa & Wierdsma, 1992). Researching the organisational learning topic from the position of different disciplines constitutes another strand that has expanded the idea (Burgoyne, 1998; Dodgson, 1993; Easterby-Smith, 1997). (Organisations that are determined to cope with the dynamic nature of a competitive environment, where creativity and flexibility are considered to be key determinants to survival, represent another key strand that has widened the subject (Denton, 1998; Duncan,

1974; Grant, 1996; Hult & Nichols, 1996; Hurley & Hult, 1998; Jelinek, 1979; Sanchez & Heene, 1997).

(The speed of technological change is considered to be another driving force for the growth of this phenomenon (Denton, 1998; Dodgson, 1993; Easterby-Smith *et al.*, 1998). Speed of technological change, as an external factor, requires organisations to continuously learn in order to do things differently. The increasing competitive nature of a global business environment constitutes another important strand that has widened the interest in organisational learning (Denton, 1998; Duarte & Snyder, 1997; Easterby-Smith *et al.*, 1998; Hamel, 1991). The actionability of the subject that arises from its direct impact upon a variety of academic disciplines and business communities, forms another strand that has extended the field (Argyris & Schon, 1978; Fulmer & Keys, 1998; Margerison, 1994; McMillen *et al.*, 1994; Revans, 1998). (A shift in the relative importance of factors of production away from capital towards labour, particularly intellectual labour, is another strand that has broadened the subject)(Denton, 1998; Drucker, 1992). Finally, both the dissatisfaction among managers and employees with an existing management paradigm and pressures placed on companies by customers constitute critical antecedents for propagating an interest in the subject (Denton, 1998; Hays & Allinson, 1998). The following sub-sections discuss a number of aspects that help to discover the state of the art of the field. These aspects incorporate a review of the organisational learning concept, an assessment of organisational models, and an analysis of a number of existing gaps in the field. The discussion also touches on the way by which this thesis intends to fill a number of gaps that exist in the field.

2.2.1 The Concept 'Organisational Learning'.

The literature offers a large number of definitions that describe the term 'organisational learning'. For instance, the dictionary definition states that learning is an acquisition of knowledge or skills. Learning, hence, encompasses two meanings: (1) an acquisition of a skill or know-how, which implies a physical ability to produce some actions, and (2)(an acquisition of a know-why which means an ability to articulate a conceptual understanding of an experience. A number of theories in the literature take advantage of such connection between thought and action (Argyris & Schon, 1978; Dixon, 1994; Kolb, 1984). (Argyris and Schon (1978, p: 29) contended that organisational learning occurs when members of the organisation act as learning agents for the organisation, responding to changes in the internal and external environments of the organisation by detecting and correcting errors in organisational theory-in-use, and embedding the results of their inquiry in private images and shared maps of organisation. Kolb (1984) has depicted a four-stage

learning cycle in which an experience is translated into concepts, which in turn are utilised as guides in a choice of new experience. Dixon (1994) has expanded Kolb's experiential cycle in order to construct a four-step collective learning cycle. Dixon (1994, p 5) defined organisational learning as an intentional use of learning processes at the individual, group, and system level to continuously transform the organisation in a direction that is increasingly satisfying to its stakeholders. Within this context, Dixon (1994) used the word 'learning' to refer to the processes that organisations employ to gain new understanding or to correct a current understanding. Organisations exploit these processes not only to create new knowledge but also to revise current knowledge. That means, learning is a dynamic process that an organisation utilises to construct and reconstruct a meaning.

In contrast, Levitt and March (1988) claimed that organisations are seen to be learning by encoding inferences from history into routines that guide an organisation's behaviour. Levitt and March's (1988) definition reveals that organisational learning occurs when it results in reworking the organisational routines upon which the organisation's behaviour is built. While the definition of Fiol and Lyles (1985) was built on the notion that organisational learning occurs when a behavioural change is observed, Fiol and Lyles (1985) thus argued that organisational learning means the process of improving actions through better knowledge and understanding. Stata (1989) defined organisational learning as a principal process by which innovation occurs. Here, organisational learning is seen as a process that incorporates new insights and a modified behaviour. In this regard, Bouwen and Fry (1991) clarified organisational learning as an increased process capacity to innovate in the future within the same organisational setting. While Kim (1993) contended that organisational learning is increasing an organisation's capacity to take effective actions, Slater and Narver (1994) explained that organisational learning is the development of new knowledge and insights that have the potential to influence behaviour. In like manner, Miller (1996) identified that organisational learning is an acquisition of new knowledge by actors who are able and willing to apply that knowledge in making decisions or influencing others in the organisation. Appendix (A) presents a compilation of definitions of organisational learning drawn from the literature.

Generally, the literature on organisational learning demonstrates that there are as many definitions as there are writers in the field (Tsang, 1997). The literature on organisational learning reveals that scholars used two similar and closely related terms. These incorporate 'organisational learning' and 'learning organisation'; sometimes these two terms were used interchangeably (Denton, 1998). This view contends that a learning organisation is one that practises organisational learning- that is, a learning organisation is an

entity, while organisational learning is a process. As a result, the learning organisation can be created once the concept of organisational learning is settled. Although the term 'organisational learning' receives a growing popularity among scholars and practitioners, the definition of organisational learning remains somewhat unclear (Dodgson, 1993; Crossan *et al.*, 1999; Crossan & Guatto, 1996; Easterby-Smith, 1997; Fiol & Lyles, 1985; Miller, 1996; Nicolini & Mezner, 1995; Tsang, 1997). The literature on the subject, in both the UK and USA, provides a large number of definitions, some of them are more implicit than explicit, and many of them are virtually different (Fortune & Peters, 1995). Scholars sought to describe the term 'organisational learning' as if the idea was homogeneous. Nobody, however, seems to have succeeded with this attempt, since there is still a need for clarity (Garvin, 1993; Jones & Hendry, 1992). Each scholar deals with the concept from a different perspective, leading to more divergence. Accordingly, the concept of organisational learning was not used consistently with a same meaning.

2.2.2 Organisational Learning Models.

Organisational learning as a subject of interest has grown rapidly in the 1990s in the management literature with regard to a number of books and articles that carried research either on organisational learning or on the learning organisation (see for example, Cavaleri & Fearon, 1996; Carley, 1992; Chawla & Renesch, 1995; Denton, 1998; Dodgson, 1993; Easterby-Smith *et al.*, 1999; Flood, 1999; Fortune & Peters, 1995; Huber, 1991; Miner & Mazias, 1996; Pedler *et al.*, 1991; Pedler & Aspinwall, 1998; Senge, 1990; Starkey, 1996). With the rise of organisational learning as a phenomenon came a range of methods, models, and instruments that sought to enhance an organisation's capability for learning (Roth & Senge, 1996; Prange, 1999). A number of review articles that suggested a variety of perspectives for viewing the phenomenon also appeared (see for example, Crossan *et al.*, 1999; Dodgson, 1993; Easterby-Smith, 1997; Easterby-Smith *et al.*, 1998; Huber, 1991; Fiol & Lyles, 1985; Lundberg, 1989; Miller, 1996; Nicolini & Mezner, 1995; Shrivastava, 1983; Tsang, 1997). The intention of the authors of these articles was first, to develop a clear meaning for the organisational learning concept and second, to integrate the growing literature on the subject.

Although these reviews provided valuable insights on the phenomenon, they were unsuccessful in generating a unified framework that captures the many perspectives of the phenomenon (Callahan & Schwandt, 1999). In their comment on the subject of organisational learning, Weick and Westley (1996, p 440) observed that there appear to be more reviews of organisational learning than there is substance to review. Nevertheless, it can be claimed that the increasing number of major reviews, which appeared in the area and

the many attempts being made to categorise core contributions seem to indicate that there is a widely shared concern among scholars regarding the state of the art of the field and its future progress. Even though there is an increased number of models that describe how and why organisations learn, scholars seem to present the notion from different ontological and epistemological grounds associated with their understanding of the topic. Miner and Mezias (1996, p 88) pointed out that ‘for nearly thirty years, organisational learning theory has been an ugly duckling in the pond of organisation theory: interesting, but living in the fringes’. This situation has, in turn, brought forth a large number of models that sought to explain how and why learning takes place in organisations. As an example, this study reviews a number of these models in relation to their main functions.

(Linking organisational learning models into their key functions helps to capture a variety of understandings about the nature of organisational learning (Schwandt, 1995). These functions include environmental interface, action/reflection, dissemination/diffusion, meaning/memory, and a combination of these four. For instance, models that reside in the environmental interface function view organisational learning as primarily allied with efforts to scan, to search, and to adapt to an environment. That means, the environmental interface function works as the informational threshold for organisational learning systems (Schwandt, 1995). Models grouped under this function principally assume that organisations learn to adapt into environments. That means, to understand what an environment is and which organisational design features fit best in such environment (Daft & Huber, 1987, p 3). The main criterion applied in classifying organisational learning models under this category is whether the focus of a model is on adapting organisations or parts of them to environments (Morgan, 1986). Daft and Weick (1984), for instance, suggested the conception of organisations as interpretation systems in which the focus is on synthesising not only the management beliefs about the environment but also the organisation’s intrusiveness into the environment. Models that promote this function employ mechanisms such as customers’ surveys, public relations, research efforts, and other means to scan an environment. These models emphasise a number of activities that help organisations to scan external information; some of these models view environmental scanning as a core element of the organisation. Klein (1989), for instance, highlighted the role of parentetic learning as a principal for organisational adaptation.

The action/reflection function, in contrast, highlights the significance of creating valued knowledge from raw information through defining the relationship between an organisation’s actions and an examination of these actions (Schwandt, 1995). This function relies on two variables associated with the dynamic nature of organisations: the level of

routine actions and the level of major actions. Organisations reflect on their actions in different ways. These may incorporate the processes used in an action, the content or results of an action, and the underlying premises of an action (Schwandt, 1995). The combination between the level of an action with each of these reflective perspectives facilitates knowledge creation. (Organisational learning models that are classified under this function view organisational learning as a process of inquiry and application or as a knowledge creation process. That is, knowledge is seen as a central to the work of the organisation (Denton, 1998; Ichjiro *et al.*, 1998). These models imply actions taken by organisations as a conscious result of self-reflection. Some of these models look at the interdisciplinary nature of various actors involved in organisational learning (Argyris & Schon, 1978; Garratt, 1987), or applying an action science perspective to overcoming individuals and groups barriers to learning (Isaacs & Senge, 1992).

Models that are grouped under the dissemination/diffusion function highlight the importance of knowledge transmission through formal and informal mechanisms. For instance, Hedlund (1994) suggested a model of knowledge management that explains the interplay between tacit, articulated knowledge and dialogue at and between the individual and organisational level. Spender (1996a) proposed a model not only to synthesise four types of knowledge but also to describe how each type of them provides the basis for a theory of competitive advantage. Alternatively, models that are categorised under the meaning/memory function place much value on the mechanisms by which an organisation creates a collective meaning and a shared culture. For example, Johannessen (1995) suggested a model that offers a diagnostic tool by which an organisation transforms information into an intellectual resource, (while Kim (1993) proposed a model that focuses on making individuals' mental models explicit or managing the way by which these mental models are transferred into an organisational memory. There exist some models in the literature that capture more than one function. Dixon's (1994) collective learning cycle represents an analytical model that incorporates a number of functions. It can be described as action/reflection model based on its link to Kolb's experiential learning cycle. It can also reside in the dissemination/diffusion of information function based on the processes of learning. These processes include information acquisition, integration, and interpretation. It can also be grouped under the meaning/memory function based on the key conceptions upon which it is built. These conceptions include sense making, dialogue, shared meaning or cognition. Appendix (B) is a compilation of models of organisational learning drawn from the literature.

2.2.3 Existing Gaps in the Organisational Learning literature.

This section examines the literature to identify a number of existing gaps that may create a potential for further studies on the subject. Even with the growing interest in the organisational learning, there exist a number of gaps that influence the state of the art of the subject. Here, two major gaps will be underlined. *First*, the fragmented nature of the organisational learning subject represents a central impediment to the progress of the field. The literature offers some causes for such fragmentation. One cause for this fragmentation results from the fact that organisational learning as a subject is applied to a range of different disciplines, each having its ontological and epistemological grounds, methodology, and research scheme (Dodgson, 1993; Easterby-Smith, 1997; Miner & Mezias, 1996). The lack of an agreement on definitions, perspectives, conceptualisations, and methodologies is considered to be another reason for that fragmentation (Callahan & Schwandt, 1999; Easterby-Smith *et al.*, 1998; Fiol & Lyles, 1985). The overflowing of untested theories and models and a resulting multiplicity of giving different conceptions to key concepts are regarded as core causes for such fragmentation (Easterby-Smith, 1997; Miller, 1996). The possible many-facets that describe organisational learning as a phenomenon may contribute to such fragmentation. Scholars' tendency to suggest different normative conceptualisations for organisational learning, each founded on different theoretical assumptions, is also another cause for this fragmentation (Nicolini & Mezner, 1995).

Theorising for the phenomenon from two different streams of research incorporating descriptive and prescriptive writings is seen as another reason for this fragmentation (Tsang, 1997). A high degree of fragmentation seems inappropriate in a growing area of research, which now 'stands on the threshold of moving centre stage in organisation theory, in both applied and theoretical context' (Miner & Mezias, 1996, p 90). Although the fragmentation of the subject is, in itself, not necessarily problematic, it can restrain its scientific progress. This happens when such fragmentation prevents collaboration, impedes an acquisition or an efficient use of resources, prohibits an integration between and across different disciplines or when it leads to spending resources on a redundant research (Gallagher & Fellenz, 1999). To approach this gap, this thesis intends to subject the conceptual perspectives that reside in Dixon's (1994) collective learning cycle into an empirical examination in order to validate its theoretical trustworthiness. Rather than starting from the very beginning, this thesis seeks to exploit the basic conceptual steps that exist in Dixon's (1994) collective learning cycle in order to examine the practice of organisational learning. Because Dixon's (1994) collective learning cycle was built upon a wide array of perspectives drawn from the literature, its use would be valuable to carry out such examination. In addition, this thesis intends to relate the

empirical findings into the literature on the subject in order to generate a realistic framework for the phenomenon.

Second, the theoretical or descriptive nature of major contributions in the field represents another crucial gap in the field (Easterby-Smith 1997; Huber, 1991; Shrivastava, 1983; Sullivan & Nonaka, 1986). Sullivan and Nonaka (1986, p 145) pointed out that organisational learning is an important topic in management and organisational research, but there is very little empirical work on how such learning may occur. The theoretical nature of the subject resulted in building taxonomies of organisational learning as opposed to the development of an action theory base, which might help organisations in an implementation process. Sims and McAulay (1995, p 15) pointed out that ‘organisational learning has been the subject of many descriptive statements that may look a little idealised’. Miner and Mezias (1996, p 95) judge ‘the ratio of systematic, empirical learning research to learning theories as far too low’. This gap is a central barrier that restrains the development of the subject. Easterby-Smith and Araujo (1999, p 11) pointed out that ‘for a long time, authors have bemoaned the shortage of empirical work in the field of organisational learning, even recently, there are no signs of the pattern changing’. This thesis intends to approach this gap through carrying out an in-depth empirical study. This empirical study includes four different companies that demonstrated an interest in the phenomenon under investigation. These companies differ in terms of structure, objectives, nature of business, management style, and geographical location. This thesis intends to employ the qualitative case study approach to examine the actual practice of organisational learning in four different organisational contexts.

Overall, the above discussion has addressed two major gaps that affect the state of the art of the organisational learning subject. These gaps incorporate the fragmented nature of the field and the theoretical nature of major contributions in the area. The influence of these gaps upon the state of the art of the field appears in a conceptual confusion that exists amongst scholars (Easterby-Smith *et al.*, 1998). These gaps also limit the progress towards common definitions in the area (Nicolini & Mezner, 1995). Moreover, these gaps restrain the capacity and progress toward the creation of a unified paradigm for the field (Callahan & Schwandt, 1999). These gaps create a situation in which there exist some contributions in the area that lack both explicit definitions and rationale behind authors’ views (Gallagher & Fellenz, 1999). Nevertheless, these gaps suggest that organisational learning as a phenomenon of interest has even more promise. Although it is quite observable that there are areas of divergence in the field, there exist areas of growing consensus (Nicolini & Mezner, 1995). These areas include a distinction between individual and organisational learning, an

importance of environmental alignment, a number of contextual factors that determine the occurrence of learning, a content of learning, a hierarchy of learning levels, and an organisational learning process (for more discussion see, Dodgson, 1993; Fiol & Lyles, 1985; Lundberg, 1989; Nicolini & Mezner, 1995).

This study responds to the above gaps in three integrated ways. *First*, it fills the critical need for rich empirical studies by carrying out an in-depth qualitative study that includes four different organisational contexts. *Second*, it meets with the vital need for more cumulative work on the subject by submitting the basic conceptual perspectives that exist in Dixon's (1994) collective learning cycle to an empirical examination. Easterby-Smith and Araujo (1999, p 13) pointed out that 'insufficient attention is being paid to the cumulative development of the field. This is manifested by a tendency to take for granted a small number of existing nostrums without submitting them to critical examination'. *Third*, it extends Dixon's (1994) model by linking it to what Garud and Nayyar's (1994) call 'transformative capacity' and hence, serving to better comprehend the latter.

2.3 The Research Key Issues.

After examining the state of the art of the organisational learning phenomenon, this section turns to discuss the line of reasoning for the thesis. The intention is to carry out a rich empirical study that includes four different organisations. Primarily, there will be an examination of the practice of organisational learning within these organisational contexts. The conceptual perspectives that are incorporated in Dixon's (1994) collective learning cycle act as guide to examining the practice of organisational learning. Explicitly, this thesis intends to exploit the conceptual perspectives that exist in Dixon's (1994) model, as starting points, not only to examine the way by which an organisation creates its capability for organisational learning but also to identify the basic steps that this organisation is experiencing in order to develop the organisational learning cycle. Dixon's (1994) model directs this study to explore the methods through which organisations generate internal and external knowledge. It will also guide research as to the mechanisms that these organisations exploit to integrate new information into the overall organisational context. In addition, it helps to discover the different processes that these organisations put into practice to generate a collective meaning from interpreting information; a collective meaning that guides organisational members' actions. Moreover, Dixon's (1994) model assists in looking into the various processes that these organisations utilise to deduce an action from a collectively interpreted meaning. That means, Dixon's (1994) model helps this study to better understand how and why an organisation really learns in terms of the four-stage cycle.

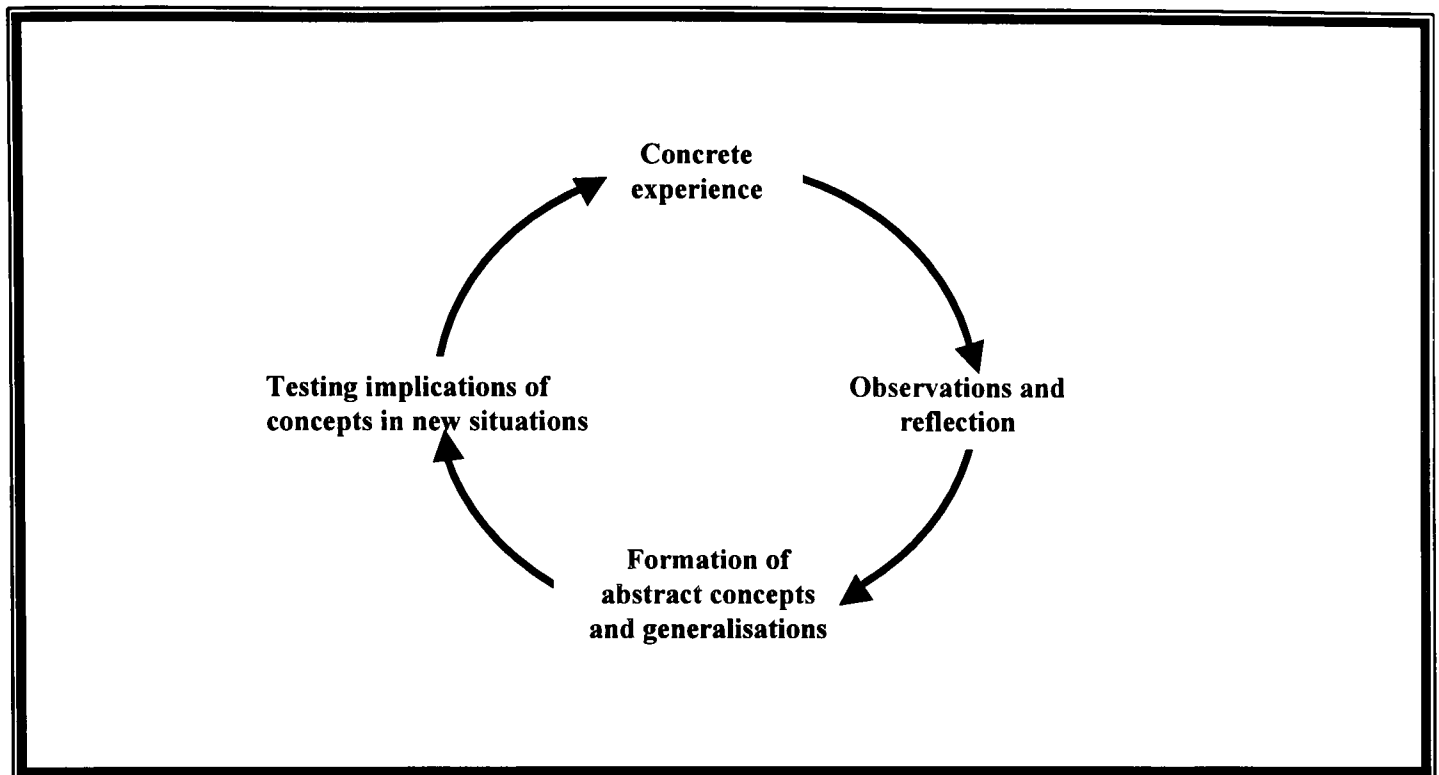
Here, it must be acknowledged that the use of Dixon's (1994) model would not prevent opening up learning both for theory refinement and theory development. In other words, this study neither views Dixon's (1994) model as an ideal nor assumes participants' viewpoints as complete facts. As Smith and May (1980, p 156) pointed out 'it certainly comes as no surprise to students of organisational behaviour to learn that the ideal accounts offered by organisational members of their practices are only a partial basis for explanation'. Basically, this thesis intends to examine the actual organisational learning practices as they naturally occur and to interpret these practices without misrepresenting them to fit prior assumptions. In so doing, the thesis attempts to 'balance a rational analytical approach with an intuitive thinking process' (Starkey, 1998, p545). This study also intends to expand Dixon's (1994) model by relating it to what Garud and Nayyar's (1994) call 'transformative capacity' and hence, helping to better understand the latter. That means, this study examines the organisational learning cycle in terms of what Garud and Nayyar's (1994) name 'transformative capacity'. In particular, the investigation looks at the way by which an organisation assimilates and exploits its collective knowledge to generate commercial ends. The following sub-sections discuss the different aspects that construct the conceptual argument for the thesis.

2.3.1 The Relationship between Kolb's (1984) Experiential Learning Cycle and Dixon's (1994) Organisational Learning Cycle.

Before continuing the discussion on Dixon's model, this section touches on the conceptual origins of Dixon's (1994) model. Dixon (1994) has placed much value on the individual learning as a necessary but insufficient condition for organisational learning. Here, Dixon (1994) has explained that organisational learning is not simply the sum of all that organisational members know. Rather, it is the collective use of this capability of learning. This statement proposes that although organisational learning is dependent upon the individual, organisational learning differs from individual learning. Dixon (1994) has utilised the context of Kolb's (1984) experiential learning model to understand how individuals learn, with the intention to use such context to better understand how organisational learning takes place. Dixon (1994) has intended to explicate the relationship between individual learning and organisational learning. To better comprehend that relationship, the discussion now turns first, to summarise Kolb's (1984) experiential learning model and second, to relate Dixon's (1994) organisational learning cycle to Kolb's (1984) experiential learning cycle. Kolb (1984) suggested a cycle through which individual learning evolves (see figure 2.1 below). Kolb (1984) has labelled this model 'experiential' for two reasons. *First*, he intended to relate it to its intellectual origins in the social psychology and sensitivity training and in education. *Second*, he sought to highlight the central role that

experience participates in the learning process. Such emphasis in turn differentiates the ‘experiential’ model from other cognitive theories of the learning process.

Figure 2.1: The Experiential Learning Model (Kolb, 1984).



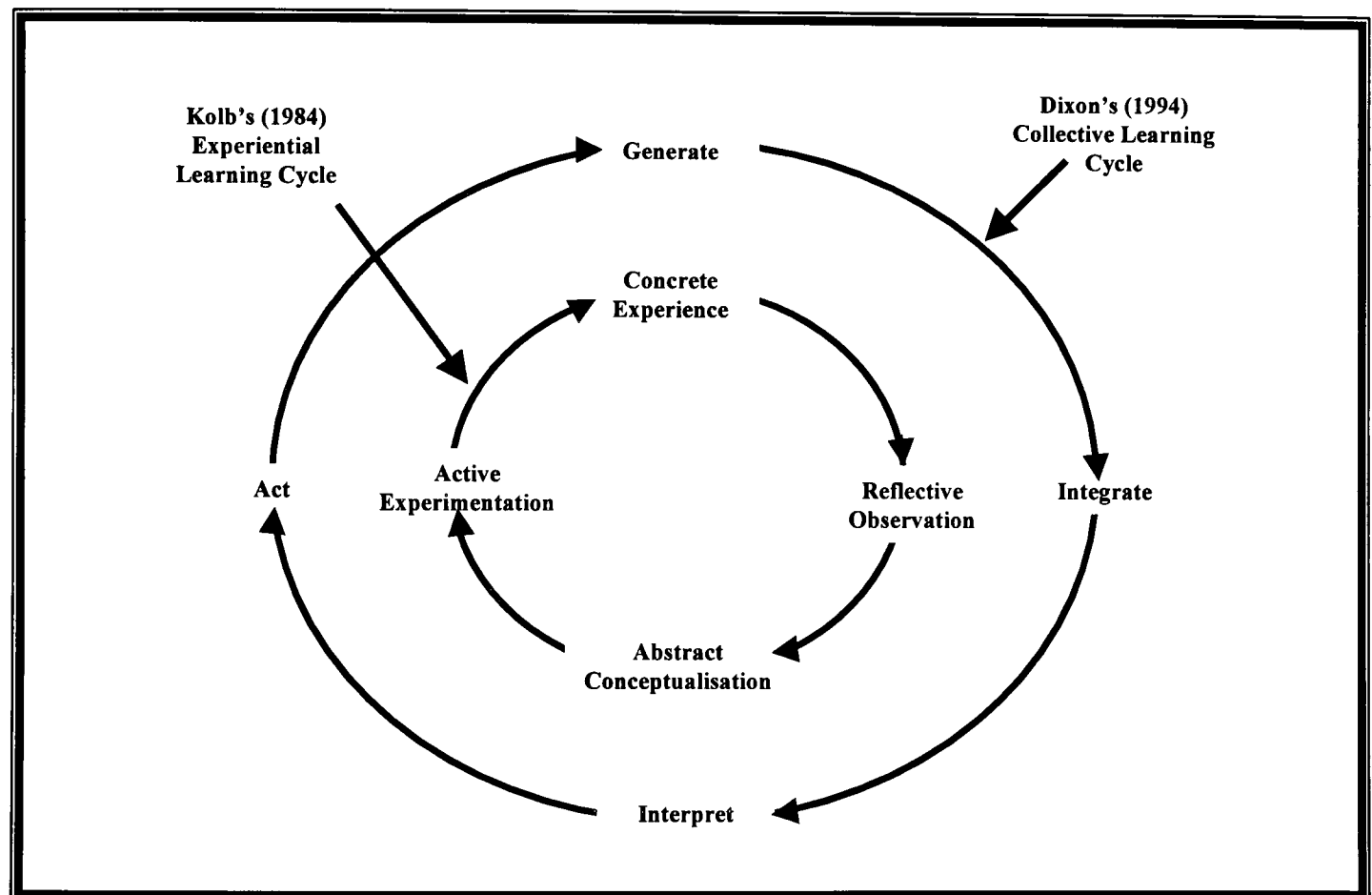
Kolb's (1984) experiential learning model explains how an experience is transformed into concepts, which in turn are utilised as guides in the choice of a new experience. Figure 2.1 above demonstrates that learning is envisioned as a four-stage cycle. The cycle begins by emphasising ‘concrete experience’ as the basis for observation and reflection. Kolb (1984) entitles this stage ‘concrete experience’ to differentiate a real world experience from a basic experience that the individual acquires through books or plays. The second stage of the cycle is entitled ‘reflective observation’. Kolb (1984) proposes that for the individual to learn from his or her experience, he or she needs to reflect on what has occurred. Reflection is a selective and hence, the individual reflects on much less than what has occurred in the real experience. This reflection is influenced by the individual's expectations and meaning structure. The third stage of Kolb's (1984) experiential cycle is called an ‘abstract conceptualisation’. Here, Kolb (1984) suggests that the individual needs to integrate his or her observations into logically sound theories. This integration, in turn, helps not only to make sense of what has been experienced but also to create a new meaning. Kolb (1984) calls the fourth stage of his experiential cycle the ‘active experimentation’. At this stage, Kolb (1984) proposes that the individual should use the meaning already constructed to make decisions and to solve problems. Here, the individual tries out the meaning by taking an action, which then leads to new experience. Kolb (1984) has noted that the four stages of the experiential learning cycle are all essential for learning. In addition, Kolb (1984) has stated that when one stage comes to dominate the others, learning effectiveness will be reduced in the long-term.

Kolb (1984) argued that learning should be an explicit objective for organisations. He identified that if managers had a model about how individuals and organisations learn; they would be well placed to enhance their own and the organisation's ability to learn. Dixon (1994) has taken advantage of that by building the organisational learning cycle model. Dixon (1994, p 45) argued that for organisational learning to take place, each individual must still engage in all the stages of the experiential learning cycle. However, she claimed that considerable emphasis should transpire to collective, rather than just individual, learning. Understanding the context of Dixon's (1994) organisational learning cycle lies, to a large extent, in the distinction that she made between individuals' private, accessible, and collective meaning structures. The clear distinction between these three meaning structures enables Dixon not only to successfully differentiate individual learning from collective learning but also to establish the link between them. Dixon (1994) explains that private meaning structures refer to these parts of the individuals' cognitive maps, which they decide to hold back from others, while accessible meaning structures represent these parts of the individuals cognitive maps that they choose to free up to others in the organisation (Dixon, 1994). Collective meaning structures are these parts of the individuals' cognitive maps that organisational members maintain mutually with other members of the organisation. Dixon (1994) thus suggests that the utmost capacity of organisational learning can be achieved in organisations in which accessible meaning structures are eminent. This has led Dixon (1994) to think about generating the systematic processes by which individuals' private meaning structures can be transformed into accessible meaning structures.

It may be helpful to shed more light on the relation between Kolb's (1984) experiential learning cycle and Dixon's (1994) organisational learning cycle. Figure 2.2 below explains the relationship between the basic steps of the two models. Figure 2.2 represents a comparison of an individual learning cycle with a collective learning cycle. On the one hand, Kolb's (1984) model proposes that the individual must engage in concrete experience to learn. On the other hand, Dixon's (1994) model suggests that all organisational members must engage not only in acquiring external information but also in generating internal information and ideas. In the second stage of Kolb's (1984) experiential cycle, the individual must reflect on the experience that he or she has constructed, while in Dixon's (1994) collective learning cycle, this task is more complex. For this to happen, the organisation must grant access to information for all organisational members. Dixon (1994) calls this step the integration of new information into the organisational context. The third stage of Kolb's (1984) model reveals that the individual needs to develop concepts, which combine his or her observations into rational propositions, while Dixon's (1994) model emphasises the way by which information can be interpreted collectively. The collective

interpretation of information is more complex because organisational members often approach the task with different views and hence, different ways of interpreting information. Dixon (1994) argues that these differences are essential to organisational learning. The final stage of Kolb's (1984) model explains that the individual must try out the conceptual conclusions that he or she has created through active experimentation, while Dixon's (1994) collective learning model proposes that organisational members should act on the interpretation they have made cooperatively. Taking an action based on a collectively interpreted meaning serves not only to assess an interpretation but also to continue the organisational learning cycle.

Figure 2.2: The Organisational Learning Cycle and the Experiential Learning Cycle.



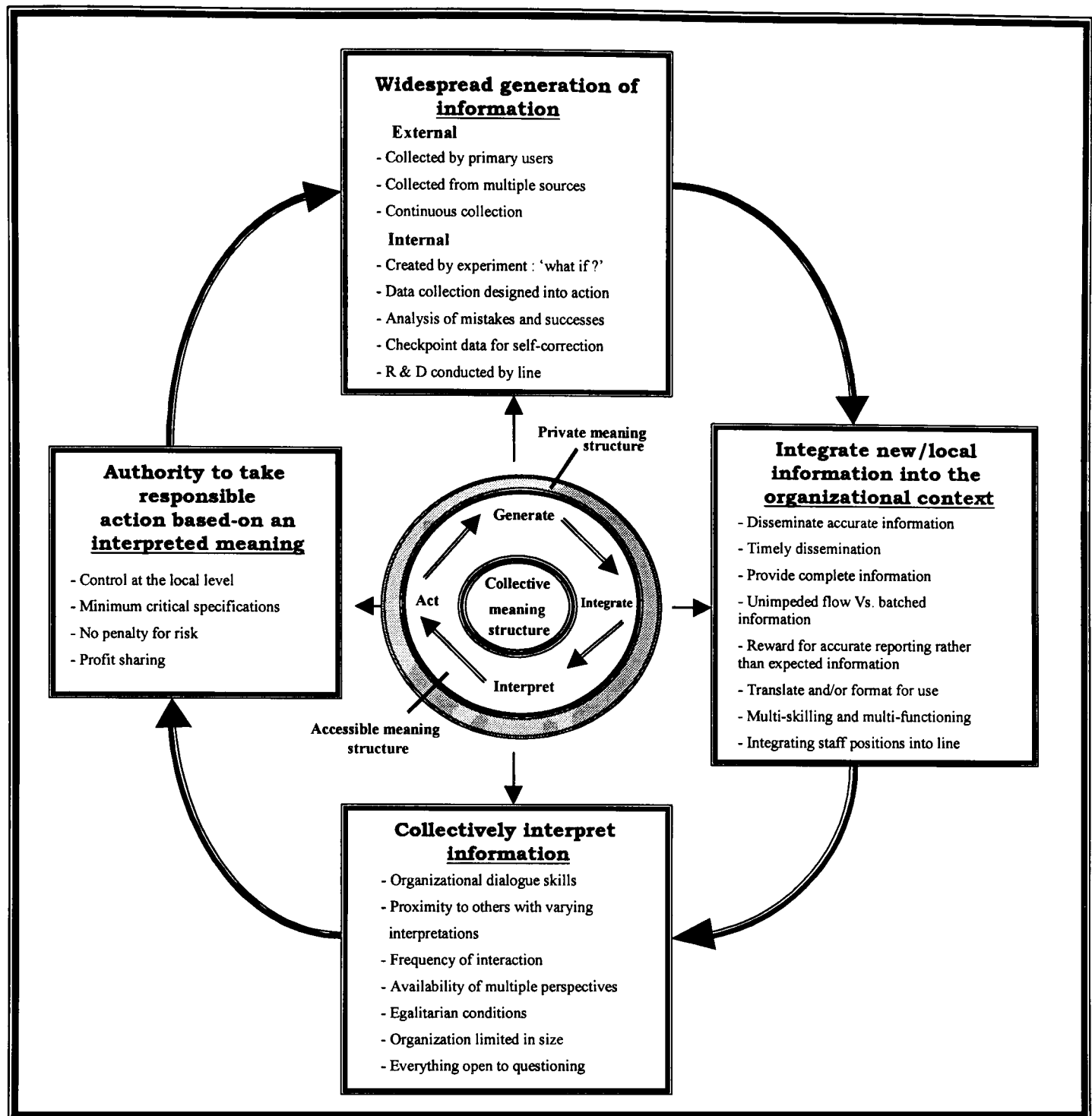
2.3.2 Dixon's (1994) Organisational Learning Cycle Model.

Dixon's (1994) model primarily deals with the process of organisational learning. Dixon (1994) has proposed an organisational learning cycle model that highlights the basic steps through which organisational learning occurs. This model rests upon four major themes evolved from the original ideas of action learning (Dixon, 1994). First of all, such a model considers learning as a part of work and work encompasses learning. That means, work and learning must be seen as intertwined and not as separate functions. The second theme reveals that learning is not always about acquiring correct information from knowledgeable people, rather it is primarily about making meaning out of people's experience. The third theme states that organisational learning arises from intentional and planned effort. Despite the fact

that organisational learning can arise unintentionally, firms can not agree to rely on learning that occurs by chance. As Dixon (1994, p 5) pointed out 'lacking intentional processes at the individual, group, and system levels to facilitate organisational learning, organisations are inefficient learners and much that could be learned is lost'. To create their own ways of resolving strategic problem, the fourth theme suggests that organisations must continuously develop organisational members and teach them how to be competent learners, rather than relying entirely on external experts that can, at best, only provide answers that worked in the past (Dixon, 1994). The model rests upon the design of a skilful cycle of organisational learning with four stages (see figure 2.3 below).

Stage one, a widespread generation of information, incorporates not only an acquisition of external information but also a generation of internal information and ideas relating to new products or processes. External information, for instance, can be collected from customers, suppliers, new technology and economic conditions. Internal information, in contrast, can be developed through a practice of the everyday organisation's business within the organisational boundaries (Dixon, 1994). A widespread generation of new information requires a participation of each organisational member in an organisation. To survive, organisations need to stimulate learning and provide meaning for all those involved in the organisation, not just those that are at the apex of an 'organisational triangle' (Burdett, 1994). Hence, Dixon (1994) has suggested the concept 'self-confrontation' that means a person, as a sub-system of an organisation, must be able to cope with other organisational members who have built a different meaning and also, a division must be able to deal with other divisions, which have constructed a meaning, unique to itself. As Friedlander (1984, p 199) pointed out 'organisational learning occurs at the interfaces between persons, between organisational units, and between the organisation and its external environment'.

Figure 2.3: Elements in the Organisational Learning Cycle Model (Dixon, 1994, p 70).



Stage two, the integration of new information into the organisational context, demonstrates the importance of understanding new information by connecting it into the overall organisational context. As Starkey (1998, p 536) pointed out 'it involves the dissemination of relevant information on a total system basis'. To disseminate accurate and complete information, organisations should not only establish reliable processes for information distribution but also interrogate the collective meaning structure that mediates them. As Daft and Huber (1987, p6-7) pointed out 'organisations purposefully disseminate information to carry out the function of decision making and control'. For that reason, Dixon (1994) has contended that organisations should provide organisational members with accurate, timely and complete information. They should also recompense organisational members that report accurate and complete information. In addition, organisations should develop internal mechanisms that inform organisational members on how their reports be

received and put in use. Drawing on Daft and Huber (1987), Dixon (1994) identified four methods by which information can be distributed in an organisation. These methods encompass message routing, summarising, delay, and modification. These methods influence not only the access to information but also the accuracy of disseminating it throughout the entire organisation.

Stage three, a collective interpretation of information, constitutes a critical stage in the development of the organisational learning cycle. Here, collective interpretation provides an opportunity for organisational members not only to clearly understand the reasoning behind a planned action but also to challenge that reasoning. Dixon (1994, p 80) outlined three core values through which a collective interpretation occurs. These incorporate: (1) freedom that means organisational members must be authorised to speak openly without fear of punishment, (2) equality that means an individual's ideas should not be valued in terms of the individual's power or position, rather they should be tested against the meanings of others, and (3) respect that highlights the importance of understanding the logic beyond others' view and thereby, sharing their world. Organisational dialogue that enhances mutual learning in collective situations is therefore imperative. By describing organisational dialogue in this way, Dixon (1994, p 83) sought to encourage a specific type of organisational talk; talk that reveals our meaning structures to each others. Therefore, Dixon (1994) claimed that providing participants with accurate and complete information, confirming other individuals competences when disagreeing with their ideas, and highlighting others' perspectives are all key elements for an effective organisational dialogue. Organisational learning can, in turn, occur through accepting and interconnecting differences in participants' views. As Friedlander (1984, p 206) pointed out 'whereas differences and ensuing conflict are essential ingredients of learning, trust and valuing between subsystems are conditions that permit differences to be accepted and integrated into a new formulation or learning. Organisations must thus encourage organisational members to learn from others and additionally, from themselves as a 'community of learners' and also, must reduce defensive routines (Argyris, 1986).

Stage four, taking a responsible action based on an interpreted meaning, reflects the importance of knowledge to guide organisational actions. Organisational learning will be lost if organisational members neither act on the knowledge they construct together nor learn from their actions. Not only acting on knowledge is crucial for the completion of the organisational learning cycle but also for overcoming a resistance to change. Acting on knowledge means that organisational members have all the necessary information and understand it within its own context and moreover, have enough authority to make their

identifiable contributions when and where they are required. Overall, the four stages, discussed above, should be viewed as a continuous process, in that the forth stage- having authority to take a responsible action based on an interpreted meaning, generates yet more information and starts the cycle again. Participation of each organisational member in developing the four stages is a key element in accelerating the occurrence of the organisational learning cycle. This study utilises Dixon's (1994) model not only to examine the different organisational learning practices that participants' organisations carry out but also to place them in the organisational learning cycle. In so doing, a variety of features that describe each organisation's approach to organisational learning will be explored.

2.3.3 The Utility of Dixon's (1994) Model.

The above discussion has sought to explain the core conceptions that are resided in Dixon's (1994) organisational learning cycle, so that the reader comprehends the logical argument of the thesis. As discussed earlier, the intention is to assimilate the basic steps that exist in the Dixon's (1994) organisational learning cycle and subject them to an empirical examination to validate their theoretical coherence. Here, the study primarily employs the conceptual context of Dixon's (1994) model to examine the practice of organisational learning in four different organisational contexts. The examination process focuses on identifying the different stages that these organisations are going through to develop the organisational learning cycle. It is now worthwhile to turn to a brief discussion on the rationale behind choosing Dixon's (1994) model to accomplish such task. Dixon's (1994) model inherently intends to explicate and describe, in a simple form, a complex phenomenon, which is organisational learning. Accordingly, it is inevitably tending to simplify the complex nature of organisational learning as a 'social-dynamic phenomenon' (March, 1991). As Starkey (1998, p 540) pointed out 'current theories of the learning organisation are resolutely rational in their image of organisation'. The Dixon (1994) model offers a number of basic conceptions and processes that explain how and why organisational learning occurs. These conceptions exist in the different elements that construct the organisational learning cycle (see figure 2.3 above). The most significant point to be made here is that the development of Dixon's (1994) model has relied not only upon an intensive review of the literature but also upon an empirical evidence gathered from different organisations. The current thesis, thus, exploits the multiple perspectives that reside in Dixon's (1994) model, as starting points, to interpret and describe the practice of organisational learning in four different organisations.

Here, presenting a number of reasons that rationalise the pertinent logic from selecting Dixon's (1994) model to guide the empirical study of this thesis is central. *Initially,*

Dixon's (1994) model was built upon well-accepted and efficient sets of concepts that describe the means through which organisational learning takes place in organisations. Dixon's (1994) model was framed drawing extensively on the literature of organisational learning, recent concepts from the field of social cognition and adult development, and organisational and cognitive psychology. Starkey (1998, p 536), in his review article, pointed out that 'the different currents that are contributing to the emerging field of organisational learning are well-encapsulated in Nancy Dixon's The Organisational Learning Cycle'. The significance of this model is substantiated by 'the grounding of theory in a number of case examples drawn from a variety of contexts' (Ibid. p537). *Secondly*, Dixon's (1994) model generates opportunities for further empirical studies that are targeted to validate its theoretical trustworthiness. Although the organisational learning cycle model has highlighted the importance of organisational learning for the formulation of organisational strategies, for broader organisational change, and for the ability of organisations to transform themselves in response to an agreed vision or to external constraints, Dixon (1994) has underlined the need for further empirical research to examine the normative propositions of the model.

The Dixon (1994) model, thus, opens an opportunity for both theory testing and theory refinement through further empirical examinations. This need is empowered by the notion that each organisation often initiates its own future and discovers its own development route. That means, organisations vary in terms of their approaches to organisational learning. As Dixon (1994, p 93) pointed out 'I have in this section outlined some of the processes and elements organisations have employed to implement each step of the organisational learning cycle. I do not have any sense that I have captured them all nor that the ones I have provided would work well in other organisations'. This, in turn, encourages the current study to examine the different processes that organisations really put into practice to learn in terms of the four-stage cycle. *Thirdly*, Dixon's (1994) model was built upon a number of premises that strengthen its conceptual credibility. For instance, the model distinguishes individual learning from organisational learning and also, identifies how organisational learning supports the generic problem solving capacity of an organisation (Pedler *et al.*, 1989). The model also highlights the value gained from creating an organisational climate that facilitates organisational learning (Nevis *et al.*, 1995). Moreover, the model underlines the significance of an organisational culture not only to develop an organisation's capability for learning but also to extend this capability to incorporate customers, suppliers, and other important stakeholders (Garvin, 1993). The model also emphasises the critical role of applying a system thinking to maintain organisational learning and to open the organisation boundaries to let in new views (Nevis *et al.*, 1995). Dixon's (1994) model also clarifies the negative impact of a hierarchy upon system learning (Fiol &

Lyles, 1985). Furthermore, the model addresses the fundamental role of an organisational dialogue and collaborative learning to develop groups' learning skills (Isaacs, 1993). Dixon's (1994) model also considers organisational knowledge as the result of organisational learning and therefore, organisational learning in this context is closely linked with organisational sense making processes. That is, learning is the process that leads to knowledge and therefore it is learning, not knowledge itself, which is critical.

Overall, Dixon's (1994) model provides a partial analysis of a complex phenomenon, which is organisational learning. It can be said that Dixon (1994) has exercised tradeoffs between generality, simplicity, and accuracy as central criteria for advanced models (Thorngate, 1976; Weick, 1979). Dixon (1994) has intended to develop a logically consistent and integrated argument (Sutton & Staw, 1995, p 372). The case for organisational learning as a 'multifaceted-phenomenon', nevertheless, indicates that it is extremely difficult to construct a model or theory that captures the entire phenomenon, which involves too many interrelating variables, too many alternatives, and too many consequences (Dodgson, 1993; Easterby-Smith, 1997). As Lindblom (1979, 524) pointed out 'complex problems cannot be completely analysed and that we therefore require strategies for skilful incompleteness'. By making this point explicit, the intention from using Dixon's (1994) model in this thesis lies in its potential use value in enhancing the systematic and appropriately rigorous interpretation of a set of different organisational learning practices that are being carried out in organisations. Accordingly, its value for this thesis arises from its role as starting points; in the planning of the research, the formation of research instruments, and the establishment of the conceptual foundations that enhance reading the empirical materials. Dixon's (1994) model guides this study to investigate the practice of organisational learning in four organisations. The use of Dixon's (1994) model to examine the practice of organisational learning encompasses two facets: (1) studying the ways by which the four organisations develop the capability for organisational learning and (2) exploring the different stages that these organisations are going through to develop the organisational learning cycle.

2.3.4 The Processes of Organisational Learning.

This section looks at the main processes through which organisational learning takes place in organisations. These processes assist organisations not only to develop knowledge but also to exploit it. It is important that managers understand these processes when planning to make their organisations learning ones. (Senge (1996, p 294) pointed out that behind appropriate policies, strategies, and structures are effective learning processes; their creation is the third key design responsibility in learning organisations. Popper and Lipshitz (2000) call these processes 'organisational learning mechanisms'. Popper and Lipshitz (2000, P:

184-5) argue that organisational learning mechanisms are institutionalised, structural and procedural arrangements that allow organisations to learn. Through understanding the processes of organisational learning, managers will be better placed to increase the possibility of transforming their organisations in the direction that they choose. Dixon (1994) explained that organisational learning takes place through the intentional use of learning processes at the individual, group, and system level. Dixon (1994) argued that lacking intentional processes to facilitate organisational learning, most organisations are incompetent learners and much that could be learned is lost. Organisations often employ these processes to obtain a new understanding or to correct a current understanding. These processes form the dynamic mechanisms that organisations utilise to create new knowledge or to revise existing knowledge. These processes constitute the context in which organisational knowledge is developed, validated, shared, and communicated throughout the entire organisation. These processes empower an organisation's capability to understand, to predict, and to control a business environment (March *et al.*, 1991). These processes are essential prerequisites for organisational learning because they construct the framework in which organisational learning is institutionalised and made a routine (Skule, 1999).

The literature on organisational learning provides various perspectives regarding the processes through which organisational learning occurs. For instance, Dixon (1994) views these processes as a cycle that starts with (1) a widespread generation of information, (2) integration of new information into the organisational context, (3) collective interpretation of information, and (4) taking an action based on an interpreted meaning. The fourth steps then flows into the first to generate new information and to start the cycle again. Dixon (1994, p 8) pointed out that by employing the processes of the organisational learning cycle organisations can transform themselves'. In contrast, Daft and Weick (1984) classified the organisational learning processes into three steps. These incorporate a scanning or data collection, an interpretation or data given meaning, and a learning stage or action taken. While Huber (1991) organised these processes into four interrelated stages. These include a knowledge acquisition, an information distribution, an information interpretation, and an organisational memory.

Although organisational learning literature provides many theories explaining how organisations learn, there exist few well accepted sets of processes describing the means by which organisational learning occurs (see for example, Daft & Weick, 1984; Demarest, 1997; Fiol & Lyles, 1985; Helleloid & Simonin, 1994; Huber, 1991; Johannessen, 1995; Popper & Lipshitz, 2000; Sinkula, 1994). Reviewing the literature on the subject reveals that scholars suggested different processes by which learning evolves in an organisation. An

assessment of the existing literature, however, proposes that there are five key elements that construct the way through which organisational learning occurs. These incorporate knowledge acquisition, processing, interpretation, dissemination, and storing. These processes are well accepted because they are built upon a broader scope and an evaluation of organisational learning literature. They also include all the key aspects that are required for organisational learning to progress. They represent the dynamic mechanisms that organisations utilise to construct and reconstruct their meaning structures. The organisational memory in which collective knowledge will be kept, retrieved, and updated represents a central component of these organisational learning processes. Organisational memory is increasingly considered to be a core element in the organisational learning process (Cohen & Bacdayan, 1994; Moorman & Miner, 1997; Schwandt *et al.*, 1999; Shrivastava & Schneider, 1984; Walsh & Ungson, 1991; Weick & Roberts, 1993). Despite the interconnection between individual learning and organisational learning, the organisational learning process is different from individual learning. Cook and Yanow (1993, p: 378) pointed out that 'what organisations do when they learn is necessarily different from what individuals do when they learn'. Such a differentiation should be taken into account when an organisation establishes its organisational learning processes.

The organisational learning processes might be targeted to generate know-how knowledge through using a state theory. They might be utilised to develop know-why knowledge by utilising a process theory. Moreover, they might be directed to create know-what knowledge via a purpose theory (Sanchez, 1997). These three types of knowledge have various degrees of strategic influence in different competitive environments. A number of competences can be derived from each type of them. These competences might incorporate maintaining control of existing processes for making current products, adapting current products and processes, developing new products and processes, and identifying new kinds of products and processes (Sanchez, 1997). An organisation should, in turn, rely on some well-balanced processes in order to develop useful competences that support a sustainable competitive advantage. Competitive advantage relies upon perceptual, cognitive, social, and interpersonal skills of organisational members who are the carriers of collective knowledge.

The literature also demonstrates that exploitation of information technology and information systems enhances the possibility that these organisational learning processes will be core determinants for learning (Hatten & Hatten, 1997; Powell & Micallef, 1997; Salaway, 1987; Tenkasi & Boland, 1996). The contribution of information technology is further maximised when organisations experience more volatile market conditions, a global competition, and shorten the product life cycle. These circumstances reinforce organisations

to exploit information technology as a strategic resource to strengthen their business operations (Demarest, 1997; Feeny & Willcocks, 1998; Liebeskind, 1996; Robson, 1997). This study intends to highlight the processes that organisations employ to create the capability for organisational learning. A substantial focus will be directed to information services that these organisations put into practice to strengthen the collective learning processes. This task will be conducted through the use of Dixon's (1994) four-stage collective learning cycle. This cycle provides the framework by which organisational learning can be examined.

2.3.5 Formal (deliberate) Learning vs. Informal (emergent) Learning.

The intention of this section is to shed more light on the various ways through which organisational learning can take place in organisations. Because the informal aspect of learning has been left out of the context of Dixon's (1994) collective learning cycle this section places much emphasis on the ways in which people construct meaning in their personal and shared organisational lives. This, in turn, strengthens the understanding pointing toward an authentic interpretation of the case studies data. Learning in the workplace can take place in many situations; formal, informal, or incidental. Marsick and Watkins (1990) defined formal learning as typically institutionally sponsored, classroom-based, and highly structured while informal learning, a category that includes incidental learning, may take place in institutions, but it is not typically classroom-based or highly structured, and control of learning rests primarily in the hands of learners. In contrast, incidental learning, a subcategory of informal learning, is defined as unintentional and a by-product of some other activity, such as task accomplishment, interpersonal interaction, sensing the organisational culture, trial-and-error experimentation, or even formal learning (p. 12). Both informal and incidental learning attend to learning outside formally structured, institutionally sponsored, classroom-based activities and consequently, they take place under non-routine conditions. In such a situation, individuals may become aware of many tacit, hidden and taken-for-granted assumptions. As a result, these individuals reframe the problem they are experiencing, that is, they realise that a particular situation can be defined and solved in many different ways. Such a nature of informal learning increasingly emerges when an organisation moves beyond certain limits, stress and tension increase, and the organisational pattern of behaviour becomes highly non-linear (Kotter, 1995).

Informal learning can be deliberately encouraged by an organisation or it can occur despite an environment not highly conducive to learning. The context of informal learning suggests that people can learn informally from their interaction with others. Informal learning occurs in the normal course of daily events without a high degree of design or

structure. It almost takes place anywhere and at any time. Informal learning is mostly needed when individuals experience a situation as non-routine. In such cases, people will be better placed to develop skills and to facilitate more effectively both their own learning and that of others, when they experience a situation that demand learning. Learning from experience is thus considered to be a central feature of informal learning. Argyris and Schon (1978) observed that individuals learn from experience by drawing inferences from what people say and do. Although informal learning is difficult to organise and to control it represents a crucial component of organisational members' day-to-day practice. In such a case, tacit knowledge resides in the context, outside a person's main focus of attention, and is thus a constructive ground for informal learning. Organisational members develop their personal and collective knowledge from the natural opportunities for learning that take place every day in their normal work environment. The outcome of such an informal learning is greatest when individuals increasingly recognise the need to learn through interactions with others in their daily working life. Since learning occurs through ongoing, dialectical process of action and reflection both formal and informal learning can be understood in terms of the degree to which learning is characterised naturally by action or reflection. The routine of reflection requires individuals to become aware that they are learning (Marsick and Watkins, 1990). Such a situation necessitates a degree of intentionality. Nevertheless, if reflection is only underlined, formal learning tends to be theoretical. In contrast, informal learning occurs with no much intentional reflection.

The view of informal learning implicitly presumes that the workplace is a central feature to understanding the ways people actually learn. However, the conventional learning theory tends to endorse the valuation of abstract knowledge over actual practice and hence, to separate learning from working and, more noticeably, learners from workers (Brown & Duguid, 1991). Such a notion suggests that to understand learning and working, it is essential to place much emphasis on the formation and change of the communities in which work takes place. Here, the term community is mainly employed to involve participation in an activity system about which participants share understanding concerning what they are doing and what that means in their lives and for their communities (Lave & Wenger, 1991). The community of practice is a set of relations among persons, activity, and world, over time and in relation with other tangential and overlapping communities of practice (p. 98). A community of practice is thus seen as an intrinsic condition for the existence of knowledge, not least because it provides the interpretive support necessary for making sense of its heritage. The participation in the cultural practice in which any knowledge continues to exist is thus an epistemological principle of learning. Moreover, the social structure of this practice, its power relations, and its conditions for legitimacy define possibilities for

learning. Because the place of knowledge is within a community of practice itself the situated nature of learning is thus considered to be a central fact. Situated learning guides the attention toward the situated character of human understanding and communication. It places significant focus on the relationship between learning and the social situations in which it takes place. The rational theory of learning, however, views learning from the abstract stance of pedagogy. It focuses on the transmission of explicit, abstract knowledge from the head of someone who knows to the head of someone who does not in surroundings that specifically exclude the complexities of practice and the communities of practitioners. According to this perspective, the setting for learning is believed not to matter. To understand how learning actually occurs, not only do we need to reject these models that isolate knowledge from practice but also to develop a view of learning as a social construction, putting knowledge back into the contexts in which it has meaning. From this standpoint, the community or those participating in the learning context can in one way or another be seen to construct their understanding out of a wide range of materials that entail social and physical circumstances and the histories and social relations of the people involved. In such a situation, learners do not receive or even construct abstract, objective, individual knowledge; rather, they learn to function in a community. Therefore, Brown *et al.* (1989) contended that knowledge is situated, being in part of a product of the activity, context, and culture in which it is developed and used. By ignoring the situated nature of learning, any model of learning often defeats its own aim of providing useable and powerful knowledge.

Overall, the above discussion has addressed a number of themes that have a significant impact on understanding the nature of learning in the workplace. These themes involved formal learning vs. informal learning, the term community of practice, and situated learning. The discussion has also indicated that there is often a tension between the principles of formal learning in opposition to informal learning and as a result, practitioners and management theorists should increasingly understand the physical and hidden surroundings in which learning takes place. In such a context, organisations are required to achieve a trade-off between the learning initiatives launched within the organisation to accomplish some designed objectives and the emergent learning that takes place as a result of the ongoing process of the organisation. This requires the organisation to create a common interest, a sense of belonging, a shared language, ground rules for participation the community, mechanisms to document and to disseminate knowledge, a physical support, adequacy of feedback, and a co-operation as a key success factor. That is, to understand how organisations really learn we need to fully understand the social, cultural, physical as well as the situational circumstances in which this learning occurs.

2.3.6 Knowledge Socialisation.

To continue the discussion on the deliberate learning vs. emergent learning subject, this section intends to broaden this discussion by focusing on the social nature of the knowledge production process that emerges in the post-industrial economy. In so doing, there will be a better opportunity to discover whether or not an organisation can produce and manage knowledge autonomously. Organisations need to create the conditions in which organisational members share what they have learnt. Here, the word 'share' has two closely related meanings: one is to give away a part and the other is to hold in common. As Dixon (2000, p 9) puts it 'if I share my knowledge, that is, give it away, then we can both hold it in common-common knowledge that is known throughout the organisation'. These meanings apparently come together in the context of knowledge management, even though; the term 'knowledge management' is in itself a problematic one. The 'management' part of such a term implies that this is something management is in charge of, when what is wanted is that everyone in the organisation be involved in the exchange as well as the generation of knowledge. That is, the term 'knowledge management' inspires thoughts of another management fad. Rather than falling into the traps of such a naming dilemma the intention of this section is to focus on the knowledge socialisation process, which is required for increasing flexibility and reducing the risk of treating the knowledge production process as an autonomous and manageable one.

The term common knowledge is often used to mean such a type of knowledge that organisational members learn from doing the organisation's tasks (Dixon, 2000). This type of knowledge is generated internally by employees in the act of accomplishing the organisation's task in new and innovative ways. It is the form of knowledge that does have a potential to provide a competitive advantage and as a result, its sharing can pay off. This knowledge is said to be common because it is generated and shared across the entire organisation. Such a notion suggests that knowledge must be considered as a group or a community phenomenon. The emergence of the term 'communities of practice' has enhanced that new way of thinking about knowledge. For instance, Lave and Wenger (1991) argued that knowledge is developed as we actively participate in the practice of a social community. That community may be a work team, a religious group, a family group, or a soccer team. All of us belong to many of such communities, and our learning and knowledge within each are central to our sense of belonging to that community. Elsewhere, Wenger (1998) points out that the individual can not separate knowledge from participating in the community in which that knowledge is exercised. But organisations, by their reward policies or individualised performance goals, tend to reinforce employees to report ideas as their own, that is, to think of knowledge as an individual phenomenon. On the contrary, the idea

of knowledge as a group phenomenon proposes that knowledge should be considered as a social phenomenon or a community constructing knowledge. Within such a community, explicit knowledge as well as tacit knowledge can be shared because participants often build up a common context of experience, allowing them to socialise knowledge developed in identifiable contexts.

In today's network business environment, no organisation is an island. In such a business environment, the organisation can no longer produce and manage knowledge autonomously. The organisation needs to co-operate with its trading partners and customers to produce knowledge. Sawhney and Prandelli (2000, p 25) pointed out that today's turbulent markets demand speed and flexibility, variety and cohesiveness. They also demand collaborative knowledge creation with players that are outside the direct control of the firm. Within such a context, the community often functions as a complex adaptive system in that it provides each member of the community with an opportunity to contribute to the community. Sharing knowledge through a process of socialisation provides the organisation with a greatest opportunity to overcome individual cognitive limits. A theory of constructed knowledge presumes that knowledge in a group, a firm or an individual is contingent on the knowing subjects communicating knowledge through social or cognitive process. Krogh and Roos (1996) clarified that the individual's stock of knowledge involves both a subjective and a social component, but subjective knowledge is not shared by other individuals. For a stock of knowledge to evolve at the social level the individual must share subjective knowledge with others. Sharing knowledge through a process of socialisation is thus a complex and continuously ongoing process in which individuals account for the experience of other members of the community and share their own experiences with others. In such a situation, the shared social knowledge functions as the code that enables connections and transfer of knowledge between the various organisational members. That is, individuals share their experience verbally and also, social knowledge may be tacit in the sense that it is embedded in complex social relationships. From a sociological view, the relationships between several kinds of knowledge are social relationships between the individual and the group that develop and possess them. As result, creating new knowledge requires creating new relationships or new ways to combine and manage existing relationships. Such a perspective suggests that the social learning processes based on interaction are increasingly significant to transform information into knowledge that is shared at a social level. Figure 2.4 below illustrates the social perspective of knowledge creation in an organisational context.

Figure 2.4: The Sociological View of Knowledge Co-Creation and Sharing (Sawhney and Prandelli, 2000).

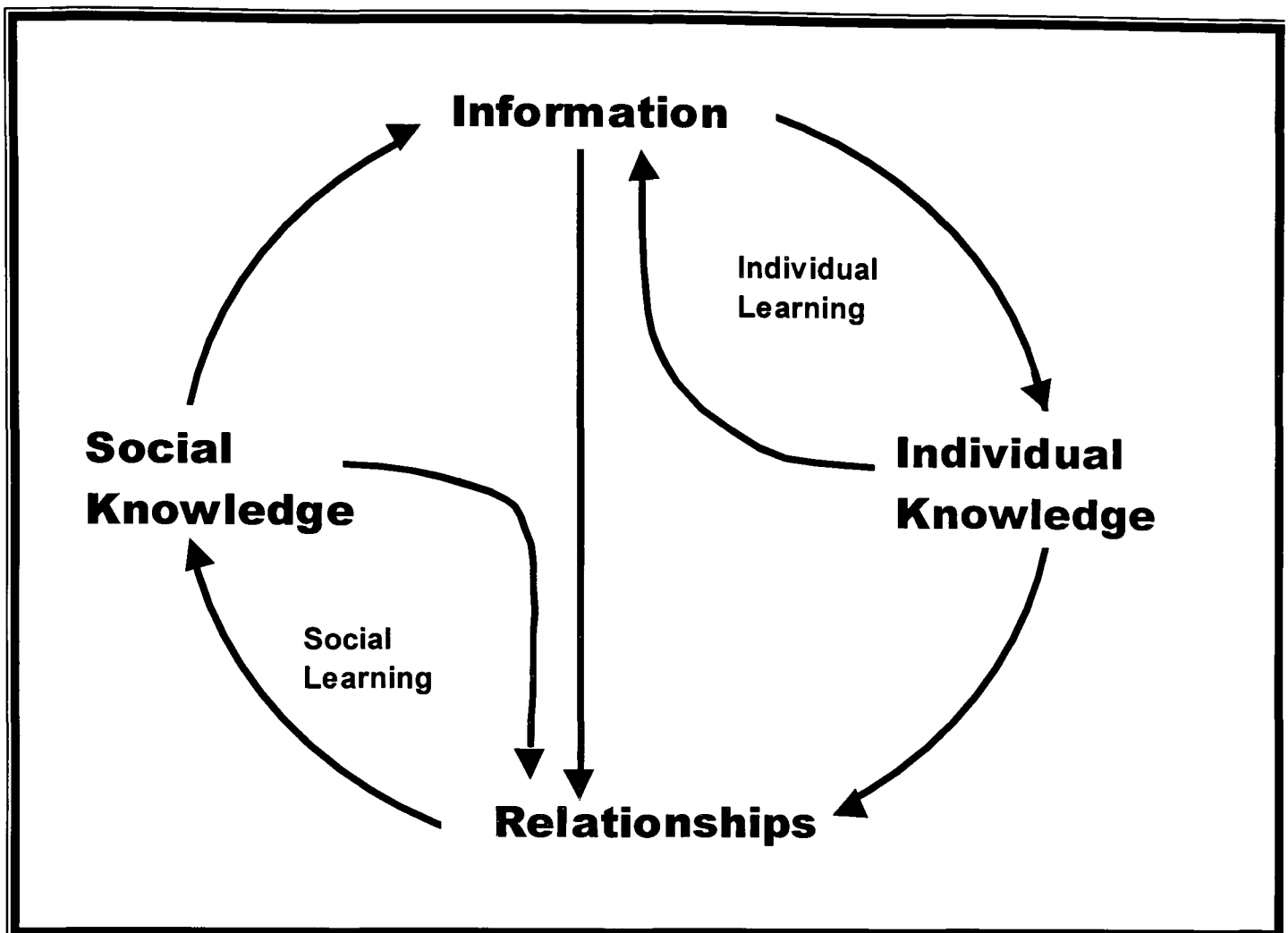


Figure 2.4 above demonstrates that the social learning processes through interaction allow the transformation of information or data collected with a specific purpose into knowledge or information with a specific meaning. This knowledge is often shared at the social level. Within the sociological context, knowledge is defined as socially spread and influenced by social settings; a social construction, embedded in a system of individual, lasting relationships; based on the interaction of several meanings; shared by agents who process data through cultural processes; shared among organisational members, both demanding and allowing for languages; material, but also mental and social; developed through participation in communities of practice; catalysed by the development of network organisational structures; and continuously changing : from individual to social and from tacit to explicit (Sawhney and Prandelli, 2000). The common element of all these principles exists in their challenge to the traditional rational-cognitive assumptions about management and organisation. That is, the sociological approach regards knowledge creation as an emerging, dynamic, and diffuse process (Youngblood, 1997). New knowledge is often generated through a synergistic interplay between individual contributions and social interactions. These interactions foster the development of a common meaning that goes beyond individual contributions.

Overall, the above discussion proposes that the social nature of knowledge is consistent with the notion that the meaning of reality is the outcome of an enactment process. It also consistent with a perspective of individual and organisational behaviour continually seeking learning, instead of viewing learning as an outcomes of a rigid planning process. It also supports the notion that knowledge is not necessarily owned by individuals, but that it can be distributed across community of individuals. With an emergence of a knowledge society, the production of knowledge becomes an important process in that it provides new forms of understanding and new possibilities to store the output of learning across time and space. The above discussion has also touched upon the complication that characterises knowledge as a community or a group phenomenon. Today, the great opportunity and challenge that an organisation encounters is to move beyond information access to knowledge sharing since knowledge increases in value when it is widely shared. The organisation also needs to overcome cultural barriers to knowledge-related behaviours such as these of knowledge creation, sharing, and use. In so doing, the organisations needs to establish culture-shape assumptions about what knowledge is and which knowledge worth sharing. It also needs to define the relationships between individual and organisational knowledge, determining who is expected to control specific knowledge, as well as who must share it and who can store it. Besides, the organisations should create an appropriate context for a social interaction that determines how knowledge will be used in particular situations. The organisation also needs to define the processes by which new knowledge is generated, legitimated, and distributed throughout the entire organisation. The increasing complexity of today's business environment thus reinforces organisations to assimilate and exploit knowledge to reduce uncertainty. The fast advances in information technology, such as that in the interactive technologies, are increasingly allowing organisations to employ a number of valuable methods of knowledge sharing and of knowledge transfer. Schnotz (1997, p 337) pointed out that the development of new technologies provides new possibilities for presenting information in a way that is assumed to be better adapted to the active and constructive nature of human learning and that allows the explicit display of the network-like structure of knowledge. For organisations to cope with the social, cultural, and technological changes that often evolve alongside the information economy they need to generate new forms of knowing and understanding. Furthermore, they need to move beyond the traditional focus on solitary knowers, toward a social perspective of knowledge creation. Understanding such a process of knowledge socialisation helps organisations not only to overcome individual cognitive limits but also to better involve organisational members in the knowledge creation process.

2.3.7 Shrivastava's (1983) Organisational Learning Systems Model.

The intention of this section is to place much focus on the basic conceptual perspectives that exist in Shrivastava's (1983) typological schema of organisational learning systems. Here, the Shrivastava (1983) model serves as an additional analytical device that helps this study to understanding the deliberate vs. emergent dimension of organisational learning. The two dimensions upon which such a model was built assist in interpreting and further, in comparing a number of features that describe each company's approach to organisational learning. By this means, there will be a better opportunity to place much value on the informal aspect of learning that was left out of the context of Dixon's (1994) collective learning cycle. Having mentioned that, the discussion turns now to present a brief explanation of a number of basic theoretical perspectives that resides in Shrivastava's (1983) model. Based on an exploratory study and on integrating a set of distinct perspectives, Shrivastava (1983) intended to develop a typology of organisational learning systems. In that way, Shrivastava (1983), first, sought to interpret the concept 'organisational learning' or the process by which organisational knowledge is developed and is formed and second, to integrate the growing literature on the subject (Daft & Huber, 1987). From this perspective, organisational learning processes are often institutionalised through learning systems. Therefore, Shrivastava (1983, p 7) identified that 'learning systems are the mechanisms by which learning is perpetuated and is institutionalised in organisations'. These learning systems might include formal management systems and informal practices or tacit rules for organisational actions. This perspective implies that both formal and informal learning practices can merge together in an organisational context. By reviewing the organisational learning literature, Shrivastava (1983) sought to group the literature on such a subject into four discrete and confronting positions. In so doing, Shrivastava (1983) made an effort not only to introduce a number of alternative views of the organisational learning phenomenon but also to integrate the increasing literature on the organisational learning topic. As Argyris and Schon (1983, p 3) in their editorial introduction to the topic of organisational learning put it: 'the term 'organisational learning' has been used in many different ways and figures in many different sorts of research enterprise- as Shrivastava's paper in this volume makes clear'. Although these viewpoints on organisational learning were discovered on a range of hypothetical assumptions, they should be seen as interrelated to each other to understanding organisational learning, because each of these views follows one conceptualisation of the phenomenon (Shrivastava, 1983).

The first perspective views organisational learning as adaptation process. This perspective reflects a large amount of writings on the subject that relates organisational adaptation to the environment (Chakravarthy, 1982; Daft & Huber, 1987). It states that

organisations adapt to problems, opportunities, and changes in the environment by adjusting goals, decisions, and behaviours. In such a perspective, organisational learning incrementally occurs through the adjustment of goals, search, and decision-making (cf. Carter, 1971; Cyert & March, 1963; March & Olsen, 1975). Shrivastava (1983) argued that organisational learning is a function of the organisation's experience with the knowledge base that underlies decision processes. This perspective confirms that organisational learning is prompted by environmental complexities, uncertainties about the future, and imperfect incentives for organisational members to act rationally. In contrast, scholars who adopted the second perspective view organisational learning as sharing of assumptions among organisational stakeholders. Argyris and Schon (1978), for instance, claimed that organisational members respond to changes in their internal and external environments by detecting errors which they then correct to sustain the core features of organisational theories-in-use. According to this view, they believe that there is a single-loop learning, which connects detected outcomes of action into organisational strategies and assumptions modified to keep organisational performance within the range set by organisational norms.

While a double-loop learning system works as a dynamic scenario. It involves the restructuring of organisational norms, and restructuring of strategies and assumptions related to these norms. Argyris and Schon (1978) therefore encouraged organisations to place much emphasis on developing their double-loop learning systems. This attitude has been reinforced for two major reasons. One is that the development of double-loop learning contains single-loop learning- that is, the capacity of double-loop learning insures the capacity of single-loop learning, but not vice versa. The other is that the history of organisations demonstrates that second and third order quality control checks on first order activities seem to be increasing in number, but not in effectiveness. For organisational learning to occur, 'Argyris and Schon (1978) claimed that learning agents' discoveries, inventions, and evaluations should be established in an organisational memory. By encoding these organisational practices in individual images and shared meaning, organisational members can be better positioned to act in view of the shared maps of organisational theory-in-use. As Argyris and Schon (1978, p 19) pointed out 'if this encoding does not occur, individuals will have learned but the organisation will not have done so. By sharing beliefs and assumptions about organisational realities, organisational learning occurs through mutual negotiation of cognitive maps among organisational members (Shrivastava, 1983). The enhancement of assumption sharing and learning among organisational members, in turn, helps organisations in solving their strategic problems. That means, organisational theories-in-use result from shared assumptions and values, and learning involves changes in

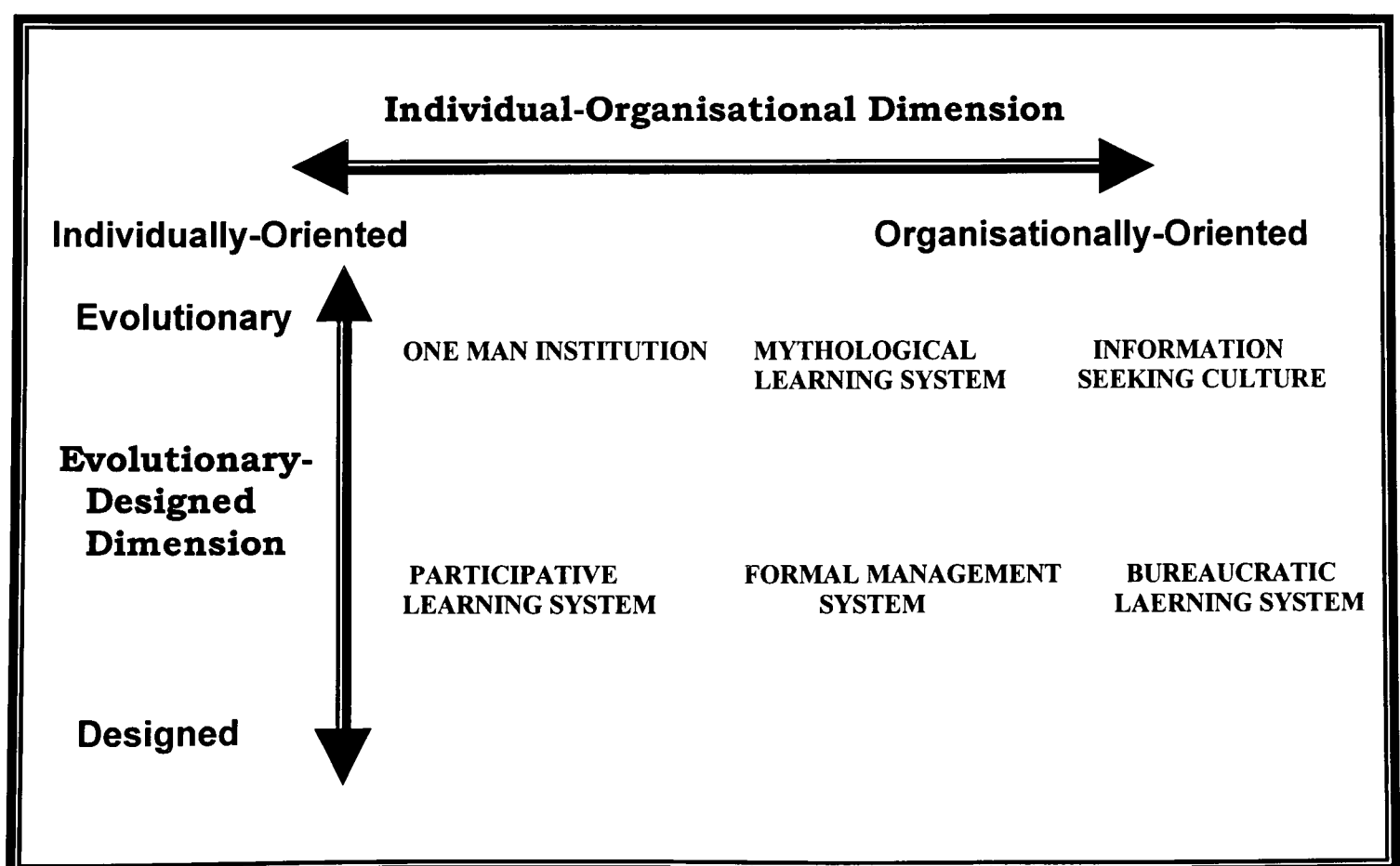
these theories (cf. Argyris & Schon, 1978; Matron & Emshoff, 1979; Mason & Mitroff, 1981).

The third perspective on organisational learning is entitled the knowledge base development view of organisational learning. Such a view presents another explanation for the organisational learning phenomenon. Within this perspective, organisations are seen as systems, which purposefully intend to transform a set of inputs into outputs through the coordinated activities of their people (Duncan & Weiss, 1978). The effectiveness of an organisation is contingent upon its long-term choices, choices of transformation processes and organisational structure. Antecedent knowledge about the relationship between organisational actions and outcomes determines these choices. Duncan and Weiss (1978) thus argued that organisational effectiveness is a function of the quality of a firm's knowledge base that is being used to make its strategic choices. Duncan and Weiss (1978, p 84) defined organisational learning as the process within the organisation by which knowledge about action-outcome relationships and the effects of the environment on these relationships is developed. This definition places much value on the significant role of organisational learning to the development of a firm's knowledge base that has a potential to enhance and to change individuals' behaviour. Such a knowledge base reports the action-outcome relationships that are linked to organisational activities (cf. Duncan & Weiss, 1978; Dutton & Duncan, 1981).

The fourth perspective on organisational learning intends to link between the theory of learning and experience curves. This perspective primarily examines the impact of people's experience that emerges from repeatedly performing a specific task upon decreasing the time spent on a given production task. A learning curve represents an important issue that was widely addressed in the literature (Yelle, 1979). Much of the work on organisational learning curves focuses on investigating the functional form of the relationship between unit cost and cumulative output in different industries (Dutton & Thomas, 1984). Despite much work was carried out on what accounts for the phenomenon of organisational learning curves, little empirical evidence about factors that explain the variation of learning rates across organisations was found (Dutton & Thomas, 1984). In such a context, a number of factors were considered to impact on organisational learning. These factors include increased individuals' proficiency, greater standardisation of procedures, improvements of production scheduling, improvements in the flow of materials, improvements in the product design, improvements in tools, division of labour and specialisation, incentives, learning outside the firm, and finally leadership (for example, Argote *et al.*, 1990; Epple *et al.*, 1991; Hays & Clark, 1986).

In his attempt to develop a typology that aims to classify a number of organisational learning systems, Shrivastava (1983) has closely examined two dimensions that can be applied to distinguish these learning systems. Figure 2.5 below describes these two dimensions. The first dimension is named the 'individual-organisational dimension'. Shrivastava (1983) contended that organisational learning accommodates the conversion of individuals' knowledge and insights into a systematic organisational knowledge base, which directs the decision-making process. In such a context, much attention is given to the significant role that those individuals, as agents of learning, practise to develop and to manage the underlined learning system. Based on how knowledge is commonly shared within an organisational context, organisational learning systems differ on this dimension from being single person-oriented to highly participative systems. Shrivastava (1983) explained that a learning system that is dependent on the input of one or few deciding organisational members is usually biased toward the personal preferences and values of those members. The role of individual members in such a learning system is precisely determined and is further approved as a norm in the organisation. On the other extreme of the continuum a number of learning systems, that can be described as impersonal and independent of individual members' inputs, are placed. These learning systems are deeply defined in terms of organisational attributes but not those individual members. Shrivastava (1983) outlined a number of organisational characteristics that define these learning systems. These parameters include organisational climate, culture, heritage, policies, and procedures.

Figure 2.5: A Typology of Organisational Learning Systems (adopted from Shrivastava, 1983, p 18).



The second dimension that characterises these learning systems is termed 'evolutionary-design dimension'. Such a dimension focuses on the process through which these learning systems come to exist in organisations. Shrivastava (1983) argued that learning systems might emerge purely as a result of socio-cultural norms, historical practices or managerial traditions of the organisation. Within such a context, there are no conscious efforts that may be targeted to design the learning mechanisms that evolve in the organisation. The socio-cultural norms refer to group cohesiveness, participation, and team spirit that provide a basis for learning in organisation (p 19). While historical practices refer to the organisational traditions of decision-making. That is, organisations tend to delegate the responsibility of taking their strategic decisions to well-experienced, senior, and loyal organisational members. Such a view explains how certain organisational members informally hold the authority to have the final word in most strategic decisions in well-established and mature organisations over a period of time (Shrivastava, 1983). On the other extreme of this continuum lie organisational learning systems that are developed and are implemented to serve specific organisational information and learning needs. These organisational learning systems can be designed not only to define the information requirements of organisations but also to develop the systems and procedures that can fulfil these needs.

The well-designed planning and information systems based-on using computer systems, decision support systems, and optimisation models are examples of these learning systems because they are designed to support the decision-making process in organisations. Figure 2.5 above demonstrates that the four pure types of Shrivastava's (1983) typological scheme lie in the four corners of the matrix. These involve individually oriented-evolutionary systems, individually oriented-designed systems, organisationally oriented-evolutionary systems, and organisationally oriented-designed systems. It can, however, be claimed that 'the more stimulating and efficient situations arise not fundamentally at the end points of the two dimensions but along the continuum' (Shrivastava, 1983). Table 2.1 below represents a number of characteristics that differentiate the various learning systems that fall in a range of parts of the two by two matrix. *First*, the one-man institution learning system represents a learning situation in which there is one man who is knowledgeable about all the aspects of the business. Such person is also perceived as the key agent of organisational knowledge and is considered to be the source for critical information. Moreover, this person works as a filter to monitor the flow of information to and from key managers in the organisation. Such person is also considered to be the peak co-ordinator through whom learning can be achieved. Because this person is perceived as an organisational idol, all his

perceptions, biases, limitations become organisational perceptions and limitation through a process of 'tacit acceptance' by other organisational members.

Second, the mythological learning system represents a learning situation in which organisational learning occurs through transpose of stories about organisational actors and activities. These stories become well-accepted organisation myths through continual narration over a period of time. These myths usually establish the foundations for development of organisational norms of knowledge sharing and as a result, they influence the distribution of and access to the storehouse of organisational knowledge through defining which organisational actors will be classified to what type of information (Shrivastava, 1983). It is also made clear that the myths that a person hears and repeats to his peers are differ from myths that this person communicates either with his subordinates or superiors. Moreover, myths that are repeated and are circulated in a functional area are very different from myths that are preferred in other areas. Myths have a critical role in initiating new recruits into the organisation as well as they create 'battlegrounds' in which organisational problems can be resolved.

Table 2.1: Characteristics of Organisational Learning Systems (Shrivastava, 1983).

CHARACTERISTICS	ONE MAN INSTITUTION	MYTHOLOGICAL LEARNING SYSTEMS	INFORMATION SEEKING CULTURE	PARTICIPATIVE LEARNING SYSTEMS	FORMAL MANAGEMENT SYSTEMS	BUREAUCRATIC LEARNING SYSTEMS
- TYPES OF KNOWLEDGE	Subjective	Subjective/mythical	Subjective/objective	Subjective/objective	Objective	Objective
- STRUCTUREDNESS	Medium	Low	Low	Medium	High	High
- EXPLICITNESS OF RULES	Low	Low	Low	Low	Low	High
- SCOPE OF SYSTEM	General	General	General	Problem specific	Task or area specific	Task specific
- MEDIA FOR COMMUNICATION	Writs, memos	Stories	Word of mouth	Discussion groups	Reports	Memos, reports
- MOTIVATION OF ACTIVITY	Crises	Social norms	Social norms	Problems	Periodic requirements	Specific decision
- TIME FRAME	Current information	Historical information	Current information	Current information	Current/future	Historical information
- ORGANISATIONAL MAKE-UP	Single or top management	Information network	None	Problem or department specific	Divisions or departments	Departments

Thirdly, the information seeking culture learning system places much emphasis on the impact of organisational climate and business environment upon fostering culture that allows employees to gear acquiring and sharing knowledge. Organisational practices that encourage organisational members to search for and to acquire information, which may be directly or indirectly relevant to their individual tasks, are widely promoted. In order to create information seeking culture learning systems, organisations should allow their people to share relevant information on a routine basis through the use of information communication networks (Shrivastava, 1983). The spoken word of mouth constitutes the main method of communication in such a learning system. To promote such mode of communication, organisations should provide an easy access and proximity in location to all interdependent organisational members. Within such a context, information that is acquired

through informal channels must be checked for accuracy before use and that must be done through appropriate organisational mechanisms.

Fourth, the participative learning system represents a learning situation in which organisations form ad-hoc committees, working groups and teams for resolving all strategic and management control problems (Shrivastava, 1983). From this perspective, the management needs to establish the organisational tools through which the effective participation in decision-making can take place. An efficient practice of information acquisition, processing, and transfer relies on the extent to which media of the joint working groups or committees are successfully implemented. Some of these committees can be developed for permanent use and other can be established for specific issues and as a result, should be dissolved after resolving these emerging issues. The composition of these committees often includes organisational members who are knowledgeable or who are in charge of making or implementing the decision. In this manner, organisations can be better placed to get the best possible outcomes from bringing together the knowledge and expertise of organisational members and from sharing it in an understandable way. Through a regular face-to-face contact, a committee's members can be better positioned to understand each others' assumptions and views on important organisational issues. Organisations can mainly strengthen the performance of these committees by providing organisational members with supportive, open, and trusting work environment in which sharing knowledge can grow and survive. By following the participative model of decision-making, the inclusion of all relevant organisational members in decision-situations is also considered to be a central feature for the effectiveness of the committee system.

Fifthly, the formal management learning system rests upon the adoption of a common notion that relates the promotion of organisational learning to the design and implementation of formal management systems for information, planning, and control (Shrivastava, 1983). The formality of management systems emerges from the development of a number of systematic procedures that direct most of the organisational activities. These formal management systems can arise in a variety of forms such as strategic planning system, management information system, environmental scanning systems, financial and budgetary control systems, project management systems and so on. The systemisation of organisational activities often comes from the organisation of individuals' knowledge and from the standardisation of the mechanisms through which such knowledge can be used. Such a type of learning system also benefits from a better use of knowledge that is made available for use by relevant organisational members.

Finally, the bureaucratic learning system incorporates well-defined set of procedures and regulations that exist in an organisation and that aim at monitoring the flow of information among organisational members. Shrivastava (1983, p 24) pointed out that these rules guide exactly which information goes to whom and for what purposes. Organisations often regulate the mechanisms through which information can be collected, transformed, and transferred. From such a view, a learning system primarily intends to promote learning through applying highly objective, impersonal, and stable procedures. By focusing on objectivity, such a learning system usually suppresses individuals' initiatives for sharing their own individual perspectives or frame of references with each other. The bureaucratic learning system places a considerable attention on generating and further, on communicating objective knowledge. Within such a context, the decision making process proceeds in well designed stepwise procedures in organisations with bureaucratic learning systems. To distinguish bureaucratic learning systems from formal management systems, Shrivastava (1983) argued that these two categories of learning systems differ in their degree of rigidity, modernness, and grounding in management sciences. Moreover, these two forms of learning differ in their approach to treat the 'intersubjectivity matter of knowledge'. It was made clear that formal management systems aim at being objective since these systems have in-built flexibility and provisions for manipulating judgemental, and intuitive types of subjective information. Bureaucratic learning systems, on the contrary, are inflexible, impersonal, and restrict to rules and regulations.

Generally, it can be viewed that Shrivastava (1983) intended to interpret the complex nature of the term 'organisational learning' as well as to integrate the growing literature on the subject. Daft and Huber (1987, p 3) pointed out that 'Shrivastava (1983) addressed these problems by integrating the extant literature on organisational learning into four approaches. These approaches represent distinct views on the complex topic of organisational learning. The various learning systems discussed above reflect a number of management systems that explicitly vary in terms of the ways through which information can be collected, communicated, and interpreted. Such a variation can be noticed in the organisation's shared frame of reference that primarily guides the decision-making process. An important issue that was discovered through the above discussion is the notion of transforming individuals' insights and knowledge into objective knowledge. The above discussion has also indicated that learning systems could emerge and evolve in a formal or an informal way to conduct organisational tasks. These learning systems are shaped and also, are governed by organisational structure, culture, and organisational members' own views. The criteria of a good system can be resided in a system quality of disseminating right and enough information to various users as well as in its significant support to the decision-making

process. The assumptions, which underline each of these systems demonstrate that different learning situations require different interpersonal skills. The current study intends to employ the Shrivastava (1983) model to explore the different characteristics that describe each company's approach to organisational learning. The discussion of the various features that explain each company's approach to organisational learning will take place in chapter eight of this thesis.

2.4 Conclusions.

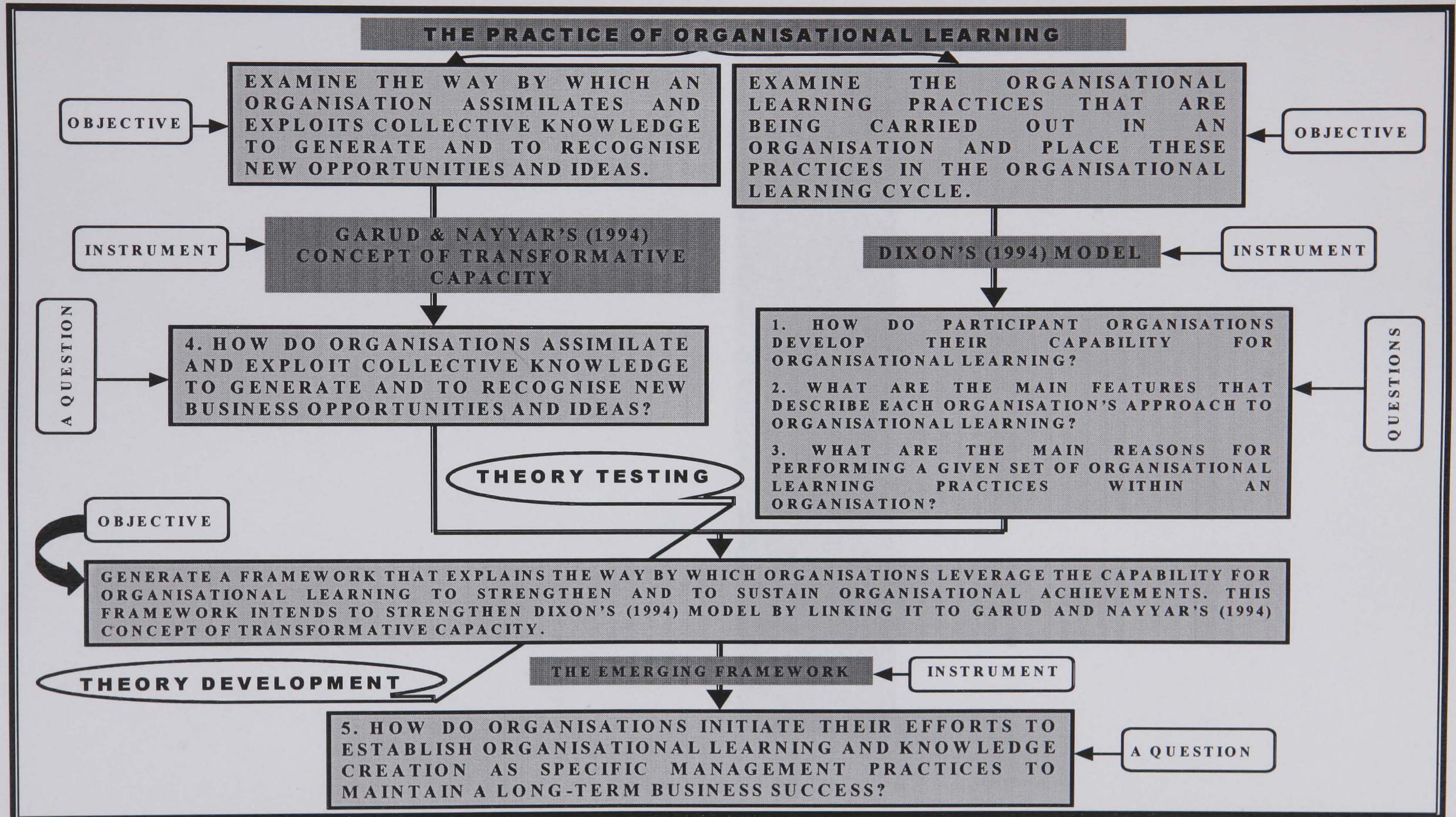
The above chapter mainly involves two major parts. A number of subjects are discussed in the current chapter. In the first main part, the chapter started by assessing the state-of-the-art of the organisational learning phenomenon through reviewing the literature on the subject. Such an analytical review to the literature touched on a number of strands that widened the interest in the organisational learning phenomenon. In addition, the concept of organisational learning has been critically examined. A number of organisational learning models are also investigated so that the diversity of the organisational learning topic is discovered. A number of concepts and models of organisational learning subject are synthesised in appendices A and B. The chapter moved on to examine some gaps that exist in the organisational learning literature. These gaps guide the attention towards a number of areas that need further research. The second main part of the chapter is targeted to address the line of reasoning and conceptual argument of the current study. In so doing, the link between Kolb's (1984) experiential learning cycle and Dixon's (1994) collective learning cycle is examined. Such a relationship demonstrates the close association between individual and organisational learning. The basic steps of the Dixon (1994) organisational learning cycle are also discussed. Besides, the utility of Dixon's (1994) model to the existing study is also emphasised. Because the informal side of organisational learning has been left out the context of Dixon's (1994) model, the rest of the chapter is targeted to shed more light on the emergent aspect of collective learning. Within such a context, a differentiation between formal and informal learning is outlined. The social nature of the knowledge creation process is also stressed. In addition, the basic theoretical views that reside in the Shrivastava (1983) organisational learning systems are examined. Such a literature review suggests that knowledge is a group and a dynamic phenomenon and as a result, organisations need to involve organisational members in the knowledge creation and sharing doings.

In the current chapter, a number of existing gaps in the organisational learning literature are discussed. Through the course of this discussion, it is discovered that more work is required in the area. In particular, the field needs more integrative work that benefits from and adds to the cumulative development of the subject. The field also requires more

systematic and rich empirical studies. In addition, the field needs more contributions that rest on the explicit definitions and rationale behind authors' views. So, the implication of what has been discussed in the chapter guides the current thesis along the following lines. Examining the practice of organisational learning in terms of the four-stage cycle emerges as a central objective for the thesis. Here, the study intends not only to examine a number of organisational learning practices that are being carried out inside an organisation but also to place these practices in the organisational learning cycle (Dixon, 1994). By this means, the study answers a number of basic research questions. These questions include: How do the participants' organisations develop their capability for organisational learning? What are the main features that describe each organisation's approach to organisational learning? What are the main reasons for performing a given set of organisational learning practices within an organisation? Chapter four to seven will examine the basic steps that construct the organisational learning cycle of each organisation and also, the rationale behind these steps. In chapter eight, the main features that describe each organisation's approach to organisational learning will be highlighted through a process of cross-case comparison. The Shrivastava (1983) two dimensions model will guide this study in carrying out such a comparison.

Examining the way by which an organisation assimilates and exploits collective knowledge to generate and to recognise competitive outcomes represents another important objective for the current study. Drawing on managers' perspectives, an exploratory description of the mechanism by which an organisation assimilates and exploits knowledge to strengthen and to sustain organisational achievements will be presented through chapter four to chapter seven. Generating a framework that intends to explain the way by which organisations leverage the capability for organisational learning to sustainable business success constitutes another central objective for this study. This framework is an attempt to strengthen the basic conceptual perspectives that exist in Dixon's (1994) model by linking them to what Garud and Nayyar (1994) call 'transformative capacity'. This framework draws extensively on the results obtained from the four case studies but it is an exploratory attempt since it draws on participants' meanings and relates these meanings to the literature. It should be remembered that this study does not intend to establish a causal relationship between collective learning and business success, rather, the study explores the basic foundations and propositions that construct this relationship. The different aspects that form the emerging framework will be discussed in chapter eight. A comparison between the emerging framework and Dixon's (1994) organisational learning cycle will also be emphasised in chapter eight. This thesis, thus, goes through a process of theory testing and of theory development (see figure 2.6 below).

Figure 2.6: The Research Questions and Objectives.



CHAPTER THREE **THE RESEARCH METHODOLOGY AND DESIGN**

Chapter Three

The Research Methodology and Design

3.1 Introduction.

The current chapter sets out to explain the methodological issues involved in the research. The nature of the existing research is exploratory; where the main objective is to examine the practice of organisational learning in terms of the four-step cycle within four different organisations. In particular, this thesis intends not only to explore the actual organisational learning practices that are being carried out within these organisations but also to place these practices in the organisational learning cycle. In addition, this thesis seeks to explore how organisations assimilate and exploit knowledge to create and recognise new business opportunities. This thesis represents an attempt not only to structure the different mechanisms by which organisational learning takes place within organisations but also to explain how these organisations really assimilate and exploit internally developed knowledge to achieve commercial ends. In so doing, this thesis sets out to answer the following questions: How do organisations develop the capability for organisational learning? What are the main features that describe each organisation's approach to organisational learning? What are the main reasons for performing a given set of organisational learning practices in each organisation? How do organisations assimilate and exploit knowledge to create and recognise new business opportunities and ideas? How do organisations initiate their efforts to establish organisational learning and knowledge creation as specific management practices to maintain a long-term business success?

This research utilises the case study approach as the main research methodology. By its nature, the case study approach involves theory building and incorporates a process of inductive reasoning. The case study approach allows the examiner to exploit participants' meanings combined with the initial propositions for generating a realistic framework. The case study approach is useful in producing sound knowledge. This knowledge is valid because the generalisation from the case study emerges from substantive relations in real structures and is not a feature of the empirical field. That means, the basis of generalisation from the case study approach lies in the existence of particular processes that influence behaviours and actions within the organisation. Such generalisation relies significantly on understanding the contingencies or the context in which these processes occur (Arbnor & Bjerke, 1997). The case study approach establishes its generalisation around theoretical propositions and not around populations. That is, the examiner generalises from one case to another on the basis of a fit to fundamental theory and not to a large population (Glaser &

Strauss, 1967; Miles & Huberman, 1994). This generalisation is further strengthened through the use of different methods of data collection (Bryman, 1988; Guba & Lincoln, 1988). The diverse methods of data collection allow valid inferences to emerge.

Accordingly, this chapter is organised into seven main sections. Section one describes the use of Dixon's (1994) model as analytical instrument to structure the case studies of this thesis. Section two discusses the main research strategy and its appropriateness to examine the phenomenon under investigation. Section three highlights the case study design and the specific design criteria that make the theoretical generalisation from this study possible. Section four touches on the various data collection methods that the current research employs. Section five places much focus on the issue of improving data quality. Section six describes the general data analysis framework that the current research implements to organise and to analyse the field data. Section seven describes the implementation of triangulation in the current research.

3.2 The Use of Dixon's (1994) Four-step Organisational Learning Cycle.

This section highlights the use of Dixon's (1994) model in guiding the empirical study of this research. The various concepts that are incorporated in Dixon's (1994) collective learning cycle direct the focus toward examining particular aspects in each organisational setting. Initially, the Dixon (1994) model provides the basis for the questions in the semi-structured interviews. The use of Dixon's (1994) model is also expanded to offer the basis for the initial coding process that organises the field data. The Dixon (1994) model provides a powerful approach to examine the practice of organisational learning in terms of a four-stage cycle in a real context. It offers useful propositions that assist this study to research the organisational learning phenomenon.

As discussed in chapter two (section 2.3.2), the Dixon (1994) organisational learning cycle includes four stages. The four stages encompass: (1) widespread generation of information, (2) integration of new information into an organisational context, (3) collectively interpret the information, and (4) take authoritative action based on interpreted meanings. Acting on knowledge serves to test an interpretation and to generate new information to continue the collective learning cycle. In synthesising this model, Dixon (1994) offers some valuable concepts such as self-confrontation, primary users, egalitarian values, and organisational dialogue. By reading the field data through the Dixon (1994) model, this research seeks to understand how and why organisational learning takes place in a particular organisational setting. This task is also extended to place the organisational learning practices that are being carried out in an organisation in the organisational learning

cycle. Table 3.1 below describes the use of Dixon's (1994) model to structure the four case studies as presented in chapters four to seven.

Table 3.1: The Use of Dixon's (1994) Model in this Research.

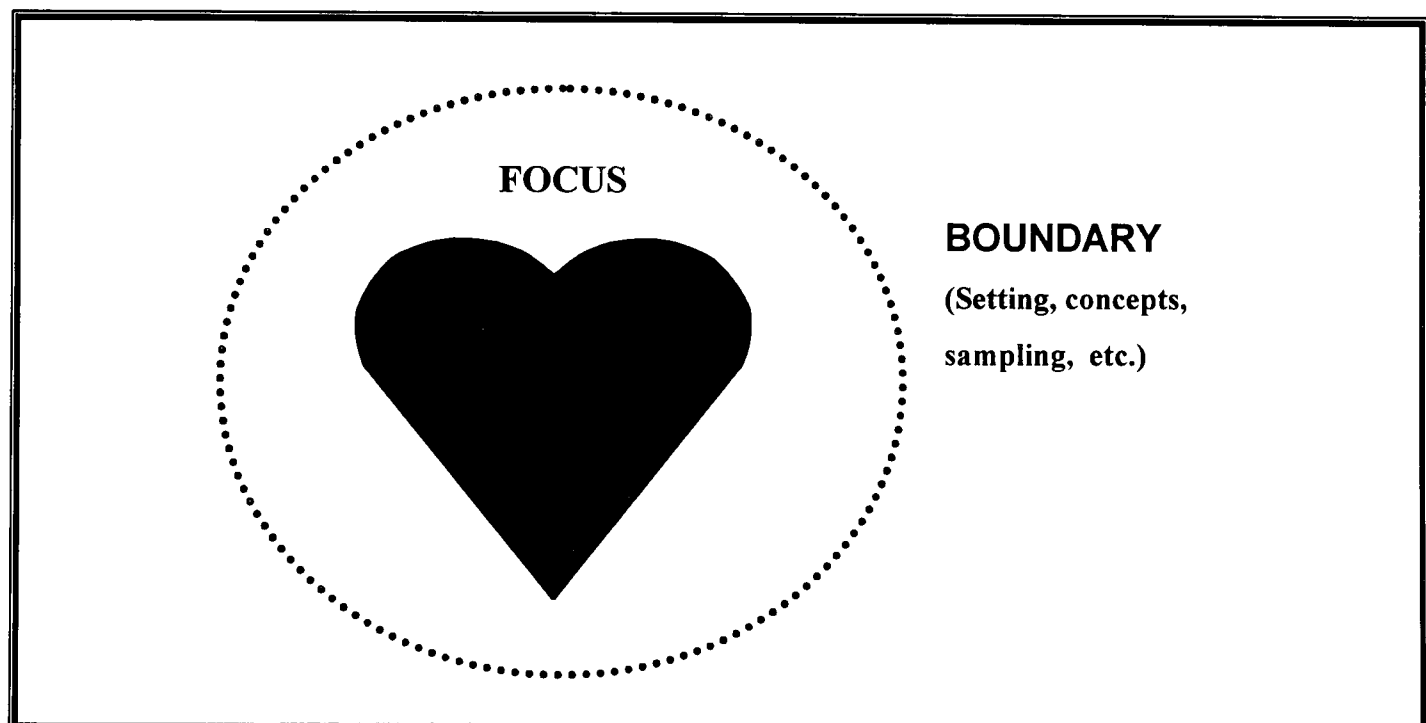
ASPECTS OF THE MODEL The Dixon (1994) four-step organisational learning cycle:	MAIN AREAS FOR EXAMINATION Synthesise the basic steps of the organisational learning cycle:
<p>Stage one: Widespread generation of information.</p> <p>Stage two: Integrate new information into an organisational context.</p> <p>Stage three: Collectively interpreting the information.</p> <p>Stage four: Take authoritative actions based upon interpreted meanings.</p>	<ul style="list-style-type: none"> ◆ Examine the various methods that each organisation utilises to capture internal and external information. This stage also explores the different approaches that an organisation employs to diffuse out new information. ◆ Investigate the different techniques that each organisation exploits to integrate new information into the overall work context. ◆ The actual methodology that each company employs to make collective interpretations from new information. ◆ Explore the existing initiatives that each organisation adopts to motivate organisational members to act based on collectively interpreted meanings.

3.3 The Strategy of the Research: The Multiple Case Study Approach.

The research strategy of the current thesis is the multiple case study approach in which the qualitative inquiry dominates. The empirical study of the current thesis was carried out at four different organisational settings. Three companies are located in the UK and one is located in Egypt. It is essential to turn immediately to a brief discussion on the nature of the case study approach. The case study approach was used in different disciplines and hence, was given different meanings (see among others, Barlow & Hersen, 1984; Bastin, 1985; Bromley, 1986; Douglas, 1976; Hamel *et al.*, 1993; Merriam, 1988; Sheridan, 1979; Vidich & Lyman, 1994). The case study approach is a general term that represents the description and analysis of a particular entity. This entity might take the form of an object, a

person, a group, an event, a state, or a specific condition. These individual entities represent specific incidents with definable boundaries. They exist and operate within a context of surrounding circumstances. They also remain over a short period of time relative to that context (Bromley, 1986). The case study approach seeks to underline the features of social life, whether this social life is perceived as a set of interactions, as common behaviour patterns, or as structures (Hamel *et al.*, 1993; Hammersley, 1990). The case study approach primarily refers to a social methodology in which the examiner explores a single entity or phenomenon (the case) restrained by the time and activity (a program, event, process, institution, or social group) and collects detailed information by using a variety of data collection procedures during the period of study (Creswell, 1994). The investigation may include one case or several cases. This discussion proposes that the case study approach should have a focus or heart, which will be studied and also, an indeterminate boundary that defines the edges of the case or what will not be studied (see figure 3.1).

Figure 3.1: The Case Study as a Unit of Analysis (source: Miles & Huberman, 1994, p 25).



The phenomenon of study might be an individual, or a small group, or an organisation, or a community or settlement, or even a nation. The multiple case study approach provides deep understanding of the processes and outcomes of cases, the chance to examine different propositions, and also, a description of locally grounded causality. As a research strategy, the representative characteristic of the case study is that it sets out to examine a simultaneous phenomenon in its real life context, particularly when the boundaries between the phenomenon and context are not apparent (Yin, 1994). When developing a technical definition for the term case study, Yin (1994) argued that this concept should rest upon two main dimensions. *First*, this concept must define the scope of the case

study. Yin (1994, p 13), accordingly, suggested a particular definition of the term case study when he states:

“An empirical inquiry that investigates a contemporary phenomenon within its real life context, especially when the boundaries between phenomenon and context are not clearly evident”

The first part of the logic of such practical definition seeks to differentiate the case study approach from other research strategies. *Second*, it is viewed that the first part of this definition is not sufficient to distinguish the case study approach from other research strategies in real life situations. Consequently, Yin (1994, p 13) in the second part of the definition clarifies:

“The case study inquiry copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result ...relies on multiple sources of evidence, with data needing to converge in a triangulation fashion, and another result.... benefits from the prior development of theoretical propositions to guide data collection and analysis”

The case study as research strategy represents a complete methodological approach, with a design that incorporates specific methods of data collection and data analysis. In other words, the case study approach is not a data collection method or a design feature alone, but it represents a comprehensive research methodology that stands on its own means and assumptions. The case study approach is the preferred research strategy when ‘how’ and ‘why’ questions are being posed, when the examiner has little control over events, and when the focus is on a simultaneous phenomenon within some real life context (Yin, 1994).

Despite the debate about the use of the case study approach compared with other research strategies such as survey and experiment, it is noted that the case study approach was utilised in the literature to achieve different purposes. For instance, the case study can be used as a clinical base for experimental studies. Hence, the case study research can significantly influence the development of contemporary applied researches (Barlow & Hersen, 1984). The case study approach can also be utilised for the development of new hypotheses that constitute a basis for new theories. The case study approach can be applied either to examine extremely rare phenomena or to cast doubt on well-established theoretical assumptions (Barlow & Hersen, 1984). The case study approach also facilitates the examination of a total situation or combination of factors or the study of individual

behaviour in its whole setting (Stake, 1995). In other words, the case study approach was suggested to provide a complete view, to consider the richness of facts concerning human events, and to view the situation in its real life context.

The case study approach offers a more comprehensive form of understanding than do other methods of inquiry (Bromley, 1986). It can be used to put together social structures and processes. It can also impart important contextual considerations not revealed by more closely controlled investigations. It is useful as an exploratory method, even if it is not the definitive method (Bromley, 1986). The case study approach also generates practical applications when providing insiders in the case with objective outsiders' view of themselves. This, in turn, enhances the relevance of management research to practice. The case study approach also gains value from the propensity of communicating scientific knowledge, especially, to those outside the area of science and professional work concerned. It also provides a proximal causal account of events and reveals processes and connections not visible in the results and write up of experiments and surveys (Bromley, 1986). The case study approach is expected to catch the complexity of a subject that undoubtedly has unique complexities and a special interest (Richardson, 1996; Stake, 1995). This is achieved by the incorporation of different methods including naturalistic, holistic, ethnographic, phenomenological, and biographic (Hammersley, 1992).

Regardless of the above advantages of the case study approach, there are some traditional prejudices that might prevent its widespread popularity. Some scholars criticise the case study approach for its lack of representativeness, particularly the lack of representativeness of the case used as a point of observation for the social phenomenon constituting the object of the study (Hamel *et al.*, 1993). Hamel *et al.* (1993) also add that the lack of rigor in the collection, construction, and analysis of the empirical materials that compose a study limits the use of the case study approach. This problem can be related to the subjectivity of the examiner and field informant on whom the examiner relies to understand the case under study (Bromley, 1986). Yin (1994) also suggests that this lack of rigor emerges either from the influence that the case study investigator has on directing the research findings and conclusions in a specific way or from the confusion between case study research and case study teaching. This criticism can, however, be overcome if the investigator effectively and fairly reports all evidence (Yin, 1994).

The other common concern about the case study approach results from its incapability to provide a strong argument for scientific generalisation (McBurney, 1994). The same question can, however, be directed to a single experiment. In other words, the

results of the case study approach, like that of experiment, can be generalised in relation to theoretical propositions but not to populations. That is, the case study, as with experiment, does not represent a sample and thereby, the investigator intends to expand and to generalise theories and not to recapitulate statistical generalisations (Yin, 1994). Similarly, Glaser and Strauss (1965, p 30) pointed out that a single case study can indicate a general conceptual category; a few more cases can confirm the indication. It should be noted that the case study approach differs from pure sampling research because the question of whether to study one case or a small number of cases in-depth, or to survey a large number of cases, apparently relies on the phenomenon under investigation and the aims of the study.

Overall, the current research has been located in the qualitative research ground for a number of reasons. Initially, the qualitative case study paradigm allows this research to investigate the actual practice of organisational learning in different settings, where variables are unknown and context is important (Creswell, 1994; Guba & Lincoln, 1994; Lincoln & Guba, 1985; Miles & Huberman, 1994). This has reinforced the initial intention of the examiner to spend substantial time on different sites, to personally contact participants, to individually engage in planning activities and operations of the cases, and to continuously reflect and revise meanings of what is going on. The case study approach also encourages the examiner to adopt a holistic view when studying the phenomenon under investigation (Miles & Huberman, 1994; Singleton *et al.*, 1988). Moreover, the case study approach helps the examiner to concern himself with the perception of individuals from the inside and hence, to better understand the phenomenon in its real context (Miles & Huberman, 1994; Rubin & Rubin, 1995). This, in turn, encourages the examiner to apply a spontaneous reasoning that values process rather than outcome (Salomon, 1991; Silverman, 1993). The flexibility of the case study approach also allows theory development to proceed in an effective manner (Hammersley & Atkinson, 1983). In addition, this approach empowers the examiner to employ a range of data collection methods and thereby, to capture the various aspects that configure the phenomenon under study (Miles & Huberman, 1994). Finally, this research takes advantage of supportive qualitative studies and supportive supervision and audience.

3.4 The Case Study Design.

Having introduced the case study approach, the discussion now turns to the actual design that was used to structure the four case studies, which are presented in chapters four to seven. Every type of empirical research should have an implicit or explicit research design, which represents the logical system that links the empirical data to the initial research questions and also, to conclusions (Fraenkel & Wall, 1990; Barlow & Hersen, 1984). The

main purpose of the research design is to help avoid a situation in which the evidence does not address the initial research questions. This research, subsequently, exercises great care to design the case study approach, seeking to overcome its traditional criticisms. Drawing on Stake (1995) and Yin (1994), five components are necessarily important for the research design. *First*, the case study approach should start with well-defined research questions but is more appropriate to deal with “how” and “why” type of questions. This sort of question allows the examiner to build a complete view on the phenomenon under investigation in which the context and behaviour are interrelated. Accordingly, the initial task in doing a case study research is to precisely clarify the nature of the research questions (Yin, 1994).

Second, the research design should highlight the theoretical framework and core propositions that will be examined through conducting the case study. As for the second component, each proposition guides the attention to something that should be investigated within the scope of the study. It is impractical for the case study to be conducted without an underlying theoretical framework or a number of propositions. In this regard, this research utilises the Dixon (1994) organisational learning cycle to understand how and why organisational learning takes place in different organisations. The Dixon (1994) model helps this research to place the organisational learning practices that are being carried out in each organisation in the organisational learning cycle (see table 3.2 below). Besides, this research extends Dixon’s (1994) collective learning cycle by linking it to what Garud and Nayyar (1994) call ‘transformative capacity’ and thus, helping to better understand the latter. Generally, the integration between the organisational learning cycle and transformative capacity offers the basis for understanding and interpreting the practice of organisational learning in four major and different organisations. On the one hand, Dixon’s (1994) collective learning cycle helps to examine the actual practice of organisational learning in terms of a four-stage cycle. On the other hand, Garud and Nayyar’s (1994) concept of ‘transformative capacity’ helps to better understand how organisations assimilate and exploit collective knowledge to create and to recognise new business opportunities and ideas. This, in turn, helps to understand how organisations really achieve commercial outcomes from organisational learning. It is an issue that helps this study to broaden Dixon’s (1994) model.

Third, the case study design should determine the case study unit of analysis. This element primarily relates to the fundamental problem of defining ‘what the case is’. In this study, the enterprise has been considered the main unit of analysis. Considerable emphasis has been devoted to the organisational learning phenomenon in each organisational setting. As a general guide, the definition of the unit of analysis has relied on both the initial research questions and literature review (Yin, 1994). Because the selection of the cases is crucial in

conducting an effective case study research, the main criterion that the current study applies to choose cases, is to maximise of what can learned from specific case (Stake, 1995). Each case is an attempt to tell a story and each story has to contribute to a better understanding of the organisational learning phenomenon.

Table 3.2: The Common Characteristics of the Case Study Design as Represented in the Four Case Studies of the Thesis.

Characteristic	Meaning	Case study tactics	Phase of the research
1. The Research questions.	The case study strategy is most appropriate for "how" and "why" types of questions.	Identify the general research questions that precisely guide the data collection process.	◆ Data collection
2. The theoretical framework and propositions: 2.1 Dixon's (1994) four-step model: <ul style="list-style-type: none"> ◆ Widespread generation of information. ◆ Integrate new information into an organisational context. ◆ Collectively interpret information. ◆ Taking actions based-upon interpreted meanings. 2.2 Garud & Nayyar's (1994) concept of transformative capacity.	<p>The current research is conducted within a set of conceptual frameworks that define the scope of the study.</p> <p>What are the mechanisms that companies use to generate new information?</p> <p>How do companies integrate new information into the entire organisational context?</p> <p>What is the actual approach that each company implements to make collective interpretation from new information?</p> <p>How do companies encourage organisational members to act on collective learning?</p> <p>How do companies assimilate and exploit knowledge to generate and to recognise new business ideas and opportunities?</p>	<p>Insure that each proposition or question directs the attention to something that should be examined within a particular setting.</p> <p>Identify the various methods that an organisation employs to generate new information</p> <p>Investigate the actual methods that companies utilise to combine new information.</p> <p>Examine the different approaches that companies adopt to interpret information in a collective fashion.</p> <p>Highlight the different techniques that companies apply to act on collectively interpreted meanings.</p> <p>Explore and conceptualise how companies generate commercial ends from internally developed knowledge.</p>	<ul style="list-style-type: none"> ◆ Data collection ◆ Initial codes ◆ Core themes ◆ Data analysis
3. Criteria for establishing empirical quality: <ul style="list-style-type: none"> ◆ Construct validity 	<ul style="list-style-type: none"> ◆ Establish correct operationalisation and rationale for 	<ul style="list-style-type: none"> ◆ Multiple sources of evidence. ◆ Key informants 	<ul style="list-style-type: none"> ◆ Data collection ◆ Data collection

	the concepts being studied.	review draft.	
♦ Internal validity	♦ Establish causal relationships whereby certain conditions are shown to lead to other conditions.	♦ Data pattern matching ♦ Explanation building	♦ Data analysis ♦ Data analysis
♦ External validity	♦ Establish the dominant to which the study's findings can be generalised.	♦ Use replication logic in the multiple case study strategy.	♦ The research design
♦ Reliability	♦ Demonstrate that the operation and procedures of the study can be repeated with the same results.	♦ Case study protocol ♦ Case study data base	♦ Data collection ♦ Data collection

The *last two* components of the current case study design are concerned with linking data to propositions and defining criteria for interpreting the findings. These two components describe the data analysis steps in the case study research and therefore, the research design should establish the foundations for this analysis. In so doing, this research adopts the pattern matching mechanism that was built on the idea of linking similar pieces of information from the same case into some theoretical framework (Miles & Huberman, 1994). This process allows themes to emerge and also, provides the basis for discovering the learning practices of four different companies. Table 3.2 above also demonstrates that four tests are utilised to reassure the quality of the case study approach. The first test is one of *constructive validity* that represents the establishment of correct operationalisation and rationale for the concept being studied (Yin, 1994). To achieve this, the current research employs a variety of tactics such as building up multiple sources of evidence, highlighting the chain of evidence, and re-examining key informants' views. These tactics were applied during the data collection phase of this research. The second test is one of *internal validity* that refers to the establishment of a causal relationship, whereby particular conditions are shown to lead to other conditions, as distinguished from false relationships (Yin, 1994).

To accomplish this, the current research employs the data pattern matching logic as a case study tactic (Miles & Huberman, 1994). Such logic compares an empirically based pattern with a predicted one. If the pattern matches, the results will strengthen the internal validity of the case study. Such a technique was used during the data analysis phase of the research. The third test is that of *external validity* that refers to the establishment of the

dominance to which the study findings can be generalised (Yin, 1994). Accordingly, the current research adopts replication logic as a core tactic in the multiple case study approach. Such a tactic was employed during the research design. The final test is that of *reliability* that refers to demonstrating that the operations of the study such as the data collection procedures can be repeated with the same results (Yin, 1994). Here, major activities such as the case study protocol and database, which organise the fieldwork, were utilised to increase the reliability of the case study approach. These tactics were applied during the data collection phase of the research.

Overall, this research sets out to explore the phenomenon under investigation by carrying out an intensive empirical study that covers four different case studies. The four case studies are descriptively presented in an inductive manner. This, in turn, provides valuable insights for both insiders and outsiders of the organisation. The presentation of the four case studies intends to help the reader to understand these cases in relation to particular circumstances. It can also be claimed that the outcomes that emerge from an effective case study approach are valid and reliable and capable of application. The case study approach applied in the research offers a more comprehensive form of understanding than do other methods of inquiry. Because the research argument is exploratory in its nature, the multiple case studies approach was found to be the most relevant methodological strategy available to address it. It can also be argued that the accurate design of the case study approach contributes significantly to achieve valid and reliable results.

3.5 The Data Collection Methods and Procedures.

The data collection steps applied in the current research include: (1) setting the boundaries for the study, (2) collecting data through interviews, documentary materials, observations and informal interviews, and (3) establishing the protocol for recording data. The main criterion was to deliberately select informants or documents or visual materials that best answer the research questions (Creswell, 1994). This criterion was emphasised as a fundamental element to improve the quality of the research findings. The current research examines four different organisations, that are located in the UK and Egypt, to draw some valuable patterns based upon a mixture of narrative and themes. Criteria for choosing cases were applied. These criteria built on a recent review of the literature on organisational learning and on an examination of some written materials regarding a number of companies that adopted organisational learning as a strategic tool. These companies included Minnesota Mining and Manufacturing or 3M, Coca Cola Schweppes Beverage Limited or CCSB, and Mayflower and Siebe. (See for instance, Denton, 1998; Shaw *et al.*, 1998).

Considering the organisational size, large representative companies such as company (A) and company (D) were chosen. They constitute two major representative companies in the financial services and retailing industries consecutively. The two companies also devote a considerable range of resources to develop a learning culture environment. In addition, they form an important ingredient of the history of the UK economy. Where managerial practice is considered, the four companies demonstrated interest and enthusiasm in developing new styles of management. These companies currently apply a set of paradigmatic and restructuring changes that strengthen the capability for organisational learning. They emphasise organisational learning as a core source of corporate innovation. Company (B), for example, has established a recent area of business called “Strategic Knowledge Management”. It employed a number of knowledge exchange databases to spread out a set of management global best practices all over the world. These knowledge bases cover all company’s offices that are located in 81 different countries. Considering the importance of the teamwork and its critical role in creating the learning organisation, company (B) and (C) were selected.

The two companies represent favourable examples of learning organisations in which the flat structure is dominant. They utilise flat organisational structures that allow employees and managers to exchange leadership; where verbal dialogues are considered the main media of communication. Company (C) has put into practice a set of management practices that strength its leadership to the private car assembling industry in Egypt. For instance, company (C) has recently established a distinctive management approach entitled a “Continuous Improvement Process” or CIP. The CIP approach permits company (C) to develop not only its organisational performance but also its suppliers’ and distributors’ performance. The four companies also differ in terms of organisation structure, focus of decision making, organisational culture, policies and procedures, management styles, and geographical locations. They have also been chosen because they have demonstrated an interest in the subject of this study. This, in turn, enhances the collaboration between the examiner and interviewees. In addition, their interest in the subject has facilitated a creation of a situation in which the examiner was able to draw out valuable and realistic themes. Apart from 11 informal interviews, a total of 32 managers were formally interviewed in the current study (see table 3.3 below). All the participants in the study are classified as practising managers. They have a wide range of occupational experience incorporating group development, management consultation, finance, training and so on. They have also acquired long term experience in doing management work. At general level, they have demonstrated knowledge of the subject matter of this study.

Table 3.3: The Characteristics of the Interviewees and Participant Companies.

Characteristics	Company (A)			Company (B)			Company (C)			Company (D)		
Nature of business	Financial Services			Management & Business Consultation			Auto Manufacturing			Retailing		
Geographical location	UK			UK			Egypt			UK		
Turnover (1998)	Over £ 1,000m			Over \$ 1,000m			Over \$ 25m			£ 5,0219m		
Interviewees	Job Title	Gender	Age	Job Title	Gender	Age	Job Title	Gender	Age	Job Title	Gender	Age
Formal Interviews	Branch Training Manager	Male	40-49	Business Consulting Manager	Male	50-59	Senior Director	Male	50-59	Group Development Manager	Male	50-59
	Regional Training Manager	Male	40-49	Corporate Tax Manager	Male	30-39	Supply Manager	Male	50-59	Head of System Support	Male	30-39
	Financial Adviser	Male	30-39	Corporate Tax Manager	Male	40-49	Training Manager	Male	50-59	Professional Services Director	Male	30-39
	Marketing Director	Female	40-49	Business Risk Manager	Male	40-49	Sales Manager	Male	30-39	Pharmacy Training Manager	Male	30-39
	Human Resources Director	Male	50-59	Corporate Finance Manager	Male	50-59	Production Manager (Truck)	Male	40-49	Business Development Manager	Male	40-49
	Branch Training Manager	Male	40-49	Human Capital Services Manager	Male	40-49	Logistic & Supply Facilitator	Male	30-39	Formulation Manager	Female	30-39
				Technology Solution Manager	Male	30-39	Financial Manager	Male	40-49	Senior Consultant	Male	30-39
				Business Practice Manager	Male	30-39	Line Manager (vehicle)	Male	40-49	Store Manager	Male	30-39
										Head of Communication	Male	40-49
										Store Manager	Female	40-49
Informal Interviews	Sales Consultant	Male	20-29	Software Consultant	Male	30-39	Supply Manager	Male	50-59	Store Manager	Male	40-49
	Financial Consultant	Female	20-29	Human Capital Services Professional	Male	20-29	Line Supervisor	Male	40-49	Formulation Manager	Female	30-39
	Financial Consultant	Male	20-29	Cost/Performance Management Consultant	Male	30-39	System Support Technician	Male	30-39			

The sampling in the multiple case study approach includes not only a decision about which people to interview or to observe but also decisions about settings, events, and social processes. Drawing on Creswell (1994) and Miles and Huberman (1994), this research has relied on four main parameters to manage the sampling choice of the study: (1) the setting or where the research takes place, (2) the actors, or, who will be observed or interviewed, (3) the events or what the actors will be observed doing or being interviewed about, and (4) the process or the evolving nature of events undertaken by the actors within the setting. In addition, the decisions about which company should be selected and who should be contacted within each company were made through the co-operation between the examiner and supervisors. After identifying the case study research sample and the parameters for the data collection, a decision about the type of data to be collected was made. During the fieldwork of the research, four methods of data collection were used.

The main method that was employed to collect the primary data of the research, was *semi-structured open-ended interview*. The option used to conduct the interviews was face-to-face or one on one, in-person interview. Such an option was beneficial for the purpose of the research since it enabled the examiner to gain more knowledge from interviewees, particularly, those who were difficult to observe. This option also gave the interviewees chance to narrate historical information on their companies. In addition, it helped the examiner to have control over the line of questioning (King, 1997). The trust between the interviewer and the interviewees was grounded on several factors, such as the giving of information about yourself, either by you or by others, so as to appear trusting to the interviewee, and also, by ensuring confidentiality. The interviewer sought to elicit information on the actual practice of organisational learning within different sites and to identify the ways in which organisations built the capability for organisational learning and how this capability was leveraged to create long-term values.

The *documentary sources* represent the second method that was utilised in this research to collect relevant data. These documentary materials were targeted to substantiate the truth and reliability of data collected by interviews (Maykut & Morehouse, 1994). These documentary materials were found in public documents such as internal publications, annual reports and interim reports, organisational memos and policy manuals, and written media. The examiner also collected some relevant materials through using computer-based databases such as “data stream” and FAME (Financial Analysis Made Easy). In some cases, it was also possible to access some in-house documentary materials such as training programs, archival documents, video-tapes and audiocassette training tools and also, reports on knowledge projects. The protocol for collecting these materials was to identify

information about documents and to look for the key categories in each document and then to take out relevant information. However, there was a sound limitation in these of such documentary materials in that they forced the examiner to search out the information, which was hard to find out and difficult to know what is needed.

The *observation method* also assisted this research so as to understand what is shaping a particular context and to provide traces and indicators pointing towards other facets of reality. Unstructured observation methods were consequently used to increase the possibility of coming across unexpected issues. The examiner was able to attend some training and discussion seminars and public talks on companies' issues, and also to visit some settings to view how they actually operate. Observational data were enormously useful for establishing the stability of various facts surround the research argument. They were also superior sources for developing the originality and validity of this research. Finally, it was made possible for the purpose of this research to collect some relevant data through conducting *informal interviews*. This technique of data gathering was made possible since the examiner was able to attend some public events and also, to build up mutual relationships with informants. The purpose of informal interviews resulted in better acquaintance and an exchange of experience. By combining both formal interview and informal interviews, the examiner was able to build useful collaborative research.

Accordingly, different views on a particular issue emerged. Informal interviews were used as a supplementary technique. *First*, they acted as checks upon facts secured through interviewing. *Second*, they were essential to reveal other facts, which were of the social process itself, and for which interviewing served as a secondary factual source. Chatting with informants, in the form of face-to-face meetings on various social occasions enabled the examiner to get close to valuable information. With a clear focus in mind, the examiner tactfully asks and actively listens to understand what is important to know about a particular setting and the experience of people within it. Informal interviews were very important in eliciting participants' perspectives. Participants were more open to talk and to criticise. Notes were taken directly during conducting these interviews. On some occasions, it was possible to record conversations. To utilise this type of interview, the examiner recognised the importance of recording direct quotations and making immediate notations of responses. Informal interviews were reconstructed and entered into the study field-notes. At some stage, the examiner observed that more informal conversations and discussions had replaced some formal interviews.

Overall, the current research utilised four methods of data collection to enhance the reliability of field experience and to grasp the different facets of the phenomenon under investigation. It can be argued that in doing a qualitative research using the case study approach, it is difficult to build up general conclusions relying solely upon a single method of data collection (Silverman, 1993). It is viewed that no data collection method can stand-alone. Subsequently, all data collection methods should be viewed as complementary techniques.

3.6 The Issue of the Quality of Primary Data: A Reflexive Outlook.

The intention of this section is to touch on the reflexive spirit in which the examiner links up the methodology, the settings and actors studied. Such a reflexive explanation guides the attention to the situated, relational, and textual elements of the interviewing experience. Mason (1996) identified that knowledge and evidence are contextual, situational, and interactional and for this reason, the interviewer is required to adopt a distinctive approach to acquiring such knowledge in each interview. Much focus thus needs to be placed on the intertextual representation that the examiner crosses to establish his own context and to define his own voice. Marcus (1998, p 399) suggested that ‘representations are social facts, and define not only the discourse of the ethnographer, but his or her literal position in relation to subjects’. The intention is to strengthen the reader’s capacity to understanding the criteria and ethic that the examiner emphasises in conducting the interview. In such a case, the reader can be able to evaluate the credibility or authenticity of the examiner’s own interpretations that are interrelated to get a reading. The examiner seeks to provide a text, which in turn is read and interpreted by readers or audiences, who because of their own interpretive and sense-making capacities, will derive their own unique meanings or readings of the text. It is an issue that is related to representation or the problem of viewing the reality of the lived experiences of the observed settings, and reporting, or how the language used by the examiner may necessarily involve rhetorical features. It addresses questions of interpretation and voice, or whose point of view is adopted to report the findings.

Altheide and Johnson (1998, p 283) suggest that ‘reflexivity is that the scientific observer is part and parcel of the setting, context, and culture he or she is trying to understand and represent’. Reflexivity is much more brought to mind in ethnography research. For instance, Boyle (1994, p 165) stated that ‘ethnography has a reflexive character, which implies that the researcher is a part of the world that she or he studies and is affected by it’. Muecke (1994, p 194) pointed out that ‘reflexivity refers to the dynamic and mutual influence of ethnographer and research field on each other’. In such a context, the interviewers must transcend the interview process and observe reflexively themselves and

the interview dynamic (Hutchinson and Wilson, 1994, 307). Lamb and Huttlinger (1989, p 766) argued that 'reflexivity is a self-awareness and an awareness of the relationship between the investigator and the research environment'. This discussion reveals that 'reflexivity' can be seen as a process through which the examiner attempts to exercise a sort of self-criticism and self-reflection on the procedures applied to collect and to report the data. To derive data in a reflexive sense, the examiner needs to be familiar with his role, and his interface with such an interaction (Mason, 1996). That is to say, the qualitative research should be conducted as a reflexive practice in which the researcher thinks and acts in ways that are situated and contextual. Lamb and Huttlinger (1989) pointed out that good ethnographies are explicit about the nature of the reflexivity shaped them. The voice of multiple audiences must thus be stressed, aiming to identify where the researcher actually stands. As De Laine (2001, p 139) puts it: 'expectations about role and identity could differ between the researcher and subjects, depending on which of the two major audiences (academic and member group) the researcher was performing for'. The notion of active reflexivity reveals that the qualitative research should involve critical self-scrutiny by the researcher (Mason, 1996). That is, the researcher should conceptualise himself as active and reflexive in the process of data generation, rather than as neutral data collector. This is further extended so that the researcher can analyse his role within the research process. In such a case, the researcher should continually assess his actions and his role in the research process, and subject these to the same critical examination as the rest of the data. This goes back to the belief that the researcher can not be neutral or objective, or divorced from the knowledge and evidence he is bringing into being (Mason, 1996). The researcher should, instead, attempt to understand his role in such a research process.

Having mentioned that, the discussion turns at this point to provide a brief explanation of the actual etiquette that the researcher follows to collect the primary data (data gathered and used by the researcher) of the study. It is an attempt to examine some of the difficult questions, which are raised by the use of qualitative interviewing. The in-depth interview technique has been the major method for collecting the primary data of this study. Qualitative interviewing is commonly intended to refer to in-depth, semi-structured forms of interviews (Mason, 1996, p 38) or it can be termed 'conversation with a purpose' (Burgess, 1984, p 102). The in-depth interview is ideally chosen to examining the phenomenon of this study in which different levels of meaning need to be explored. There are a number of issues, relevant to the use of such a technique, that the examiner needs to share with the reader. The interviewer intends to report a number of real stories in which meanings can be created through a process of conversational interaction with a number of participants. Denzin (1970, p 132) pointed out that 'the interview represents one of the basic modes by which the

investigator carries on an “interaction” with his empirical world’. Data are generated via such an interaction because either the interviewee or the interaction itself, are the data sources. As Werner and Schoepfle (1987, p 63) put it: ‘the two views, side by side, produce a third dimension that rounds out the ethnographic picture’. Through such an interaction, the interviewer labours to identify key terms, minimise respondent distortion, choose the most promising avenues of inquiry, and listen for material that is manifested by respondent testimony but not made explicit in it. Mason (1996, p 45) suggests that the intellectual task is to try to assess, on the spot, the relevance of each part of the interaction to your research questions, or to ‘what you really want to know’. The in-depth interview technique allows valuable meanings to emerge through a process of social and of linguistic interaction. Within such a context, the interviewer can be seen as co-producer and co-author of the resulting interview text.

Kvale (1996, p 2) pointed out that ‘an interview is literally an *inter view*, an inter change of views between two persons conversing about a theme of mutual interest’. Through a process of social interaction and during the course of an interview, the interviewer intends to support an interviewee to develop meanings around the phenomenon under investigation. Grant (1988, p 21) pointed out that ‘at crucial moments in the interview, the entire success of the enterprise depends upon drawing out the respondent in precisely the right manner’. King (1994, p 14) proposes that ‘the goal of any qualitative research interview is to see the research topic from the perspective of the interviewee, and to understand how and why he or she comes to have this particular perspective’. An attempt is therefore made to develop a better description of each case study through an iterative process of interaction and integration of theory and empirical data. The intention is to place much emphasis on the interviewee’s point of view and on the essence of truth. In such a case, the term truth includes reasoned rules that should be met for some statements to be more meaningful than others. As Kincheloe and McLaren (1998, p 292) put it: ‘truth is internally related to meaning in a pragmatic way through normative referenced claims, intersubjective referenced claims, subjective referenced claims, and the way we deictically ground or anchor meaning in our daily life’. Within such a context, much focus must be placed on discovering what appears natural and what appears obvious.

An important feature in the interview situation reverts to the notion that the motives for participation in interviews are diverse and consequently, this diversity contributes to a certain lack of comparability between all interviews (Denzin, 1970). The interview however remains a medium of self-expression between two parties, a medium where one listens and the other talks. To handle limitations that emerge from the subjective nature of interviewees’

own perspectives, the researcher intends to triangulate interview data with data gathered through other methods. Hartley (1994, p 209) pointed out that ‘many case study researchers, in their pursuit of the delicate and intricate interactions and processes occurring within organisations, will use a combination of methods, partly because complex phenomena may be best approached through several methods, and partly deliberately to triangulate and thereby improve validity’. A range of constructive meanings evolves through a natural framework of the interview itself and by validating meanings through a process of triangulation. That is, much attention is given to interpret and to communicate meanings participants bring about the subject matter of the interview. From such a view, much focus is placed on a number of real stories attributed to interviewees’ own contexts. Each of these stories hinges on a rich, dense, and deep description. The purpose is to capture not just ideas but also the context in which these ideas take place. Hartley (1994, p 227) argues that ‘the key feature of the case study approach is not method or data but the emphasis on understanding processes as they occur in their context’.

The interviewer in turn devotes a significant time to reflect and to revise meanings of what is going on in relation to the particulars of the case study. That is, the interviewer attempts to determine how useful the data are in explaining the questions being explored and how they are central to the story that is relating to the phenomenon under investigation. The criterion is to control the kind and amount of qualitative data without also artificially constraining or forcing their character (Grant, 1988, p 12). Through the case studies approach of this research, an attempt is made to take the reader into the setting with an intensity and detail not typically present in more analytical reporting formats. Within such an attempt, the examiner labours to explain the data in a more comprehensive but not complicated way. The objective is to allow the reader to see the world as the respondents see and experience it. That is, to give the reader a sense of having a direct experience and understanding of social life. Fontana & Frey (1998, p 53) pointed out that ‘it is not enough to understand the mechanics of interviewing; it is also important to understand the respondent’s world and forces that might stimulate or retard response’. Featuring in some cases (in particular case studies A and B), accessibility to participants is however considered to be an important criterion to select informants. This partly goes back to the difficulty that the interviewer meets in gaining and maintaining access to useful or influential informants. As Hartley (1994, p 216) puts it: unless you are already known in the organisation or the industry, you are likely to be in the position of ‘cold calling’ the organisation. Such a situation, in turn, limits the room available to the interviewer to closely explore ‘what is really going on’. Introducing the interviewer by a third party to a degree lessens the effect of such a situation.

Through the successive move from a case study to another, the interviewer then again begins to build up a rich experience on how to elicit information from informants and as results, a significant improvement to the quality of primary data is reached. Such an experience enables the interviewer to place much focus on questions that evoke long narratives from interviewees. These questions intend to generate the kind of data that will create links to an established theory (Morse, 1994b). This involves a search through the data in which the examiner challenges the understanding, search for negative instances of the pattern, and incorporates these into the main story. This can explicitly be noted throughout the move from case study (A) to case study (D). Once the examiner moves from examining a case study to another and from interviewing a respondent to another, an experience gained often plays an important role in improving the interviewing process. The examiner adopts a replication technique for cross-case analysis in which a conceptual framework directs the first case, then successive cases are examined to see whether the new pattern matches the one found earlier (Yin, 1994). That is, single-case findings can successfully be tested in a following series of cases. As Eisenhardt (1989a) suggests 'when multiple cases are carefully ordered along a key dimension, powerful explanations are more likely'. Within such a case, the examiner organises the data around certain themes and then, data are examined to see how far they fit or fail to fit the expected categories. The basic conceptual perspectives that reside in Dixon's (1994) model are employed to accomplish such a task. In so doing, the reader can be able to judge such a fit between emerging themes and theory, dedicating a sound sense of the particular circumstances of the case. The clear conceptual framework of Dixon's (1994) model helps to relate findings to the literature and aid generalisation. Such an approach gains particular value in the context of the existing research that involves multiple cases.

Eisenhardt (1989b) suggests that the writing up of the research should provide enough evidence for each construct used to allow readers to make their own assessment of its fit with theory. The careful examination of emerging themes and theory against various sources of evidence helps to prevent being subjective. The analysis of data is strengthened by reference to the existing literature and using this to raise questions about whether the emerging findings are consistent with or different from present research. Examining sources of differences between emerging ideas and extant research can therefore be a driving force for creative theory development (Hartley, 1994). Eisenhardt (1989b) adds that in generalising from the case study, using existing literature to assess the extent of generalisable findings is important. This research project thus represents an interesting journey through which the interviewer has been able to develop his qualitative research skills and to maximise the fit between the research case and what really takes place. At the end of

such a brief journey, the interviewer sets off to discover that organisational learning can really take place in an informal context than it was earlier thought. Accordingly, if another attempt is made to re-examine case studies, A, B, and C the interviewer will be able to paint a much more authentic picture to 'that is actually happening'. Within such an attempt, the interviewer is going to avoid the sort of situation that Marshall and Rossman (1999, p 110) describe it as 'interviewees may be unwilling or may be uncomfortable sharing all that the interviewer hopes to explore'.

Denzin (1970, p 130) suggests that people do not always tell the interviewer what he wants to know. This resistance to telling all may bring to light insecurity in the interview's presence, may indicate a commitment to a sense of propriety unknown to the interviewer, may indicate mis-understanding of the question, or may be deliberate resistance. All through the real examination of case studies A, B, and C, the examiner comes to find that there is a little chance to acquire anything better and as a result, making the best of what is collected is almost the case. It is a situation in which the examiner discovers that there is a pressing knowledge that this opportunity may never come again and consequently, what will not be captured in the moment will never come again. Such a situation reinforces the researcher to devote a significant time to generate inferences that can be described as 'unbiased' or correct on average. As Boyle (1994, p 165) puts it: 'the ethnographer does not take data at face value, but instead considers it as a field of inferences in which hypothetical patterns can be identified and their validity tested'. This can be achieved by making sure that sources of bias are overlooked during data collection. It can also be accomplished by making an efficient use of data employed to generate a descriptive or causal inference. Much focus is also placed on all the relevant information in the data so as to strengthen emerging inferences. These inferences are further aided by an inclusion of key primary data in writing-up case studies and hence, findings can be grounded in the data.

The criterion of rightness of an interpretation is thus considered to be an inter-subjective, that is, 'it is the right for a group of people who share a similar world' (Reason and Rowan, 1981, p 243). It should be noted that the use of multiple viewpoints is an important but not sufficient element to validate an interpretation. Another strategy that the examiner follows when a respondent deliberately avoids a topic is to approach such a topic more obliquely or in terms of another, less threatening, idiom. Such a strategy reinforces the interviewees to say more about themselves and also, about the topic under discussion than they earlier intended to. It is also discovered that essential data can be gathered when respondents are allowed to follow their own lead or to tell their own story in their own terms. The interviewer occasionally interferes to gently return a respondent to the main topic of

interest. That means, the interviewer follows an interviewing style that allows to not only eliciting rational responses from participants but also to adequately assessing the emotional dimension. By this means, the interviewer attempts to balance between the request for objectivity and the importance of considering the human side of respondents. As Punch (1986) proposes, as field-workers we need to exercise common sense and moral responsibility, and, we would like to add, to our subjects first, to the study next, and to ourselves last. Through such a brief journey to the world of interviewing the examiner notices that to learn about people we must treat them as people, and they will uncover their lives to us. As Labovitz and Hagedorn (1971, p 1) put it: ‘ascertaining the exact nature of a fact and deciding just what determines whether a bit of information is a fact are extremely complex problem’.

Drawing on King *et al.* (1994), a number of guidelines are employed to improving data quality. *Firstly*, the researcher intends to report the process by which the primary data of this study are generated. Providing such an information can significantly determine the extent to which implementing standard procedures in analysing the data produces biased inferences. Not only does the researcher explain the rules upon which cases are chosen but a number of data collection procedures are also outlined. A *second* important guideline for improving data quality resides in collecting as many evidences as possible to explore the many facets of the research phenomenon, that is, to collect as much in as many different contexts as possible. Such a guideline strengthens an attitude towards a better explanation and valuable results of the research phenomenon. Factors such as these of time limit, resources, accessibility to informants, and fear for being unproductive are core features in directing the data collection doings of this research. A number of strategies are employed to increase data credibility. These include feedback to respondents, peer review, second reader, as well as adequate time in the field.

A *third* guideline for improving data quality is to allow unobserved or unexpected concepts and themes to emerge during the actual gathering of primary data. This in turn creates an opportunity to generate a powerful explanation and to validate the research results. Such a guideline strengthens the examiner’s capability to determine categories, relationships, and assumptions that inform the interviewee’s view of the world in general and the topic of interest in particular. Janesick (1998, p 43) pointed out that ‘being totally immersed in the immediate and local actions and statements of belief of participants, the researcher must be ready to deal with the substantive focus of the study’. A *fourth* guideline is to ensure that data collection methods are reliable, that is, applying the same procedures in the same way always generate the same results. To achieve that, the researcher intends to be more explicit

regarding the procedures that can be followed by different scholars. A *fifth* guideline is to ensure that all data and analysis can be replicable. To allow for replicability, the researcher attempts to report the procedures of data collection and of data analysis in detail so that it can be replicated. Such replicability may also enable different researchers to evaluate the procedures followed and methods applied. Although the possibility for a single study to be replicable is very rare a researcher should have the responsibility to act as if someone may want to do so.

Overall, these guidelines establish the bases by which the examiner can be better placed to look for the meaning and perspectives of the participants in the study, to look for relationships regarding the structure, occurrence, and distribution of events over time, and to look for points of tension: What does not fit? What are the conflicting points of evidence in the case? Such a situation requires good sense and thought to understand the relationships of seemingly unrelated facts or negative cases-informants or behaviours that do not confirm to the apparent patterns (Morse, 1998). By this means, the examiner can be better positioned to enrich the emergent framework and to explain all variations and diverse patterns. The above discussion also reveals that the interview should be seen as a process of establishing meaning and purpose. Each part needs to determine what the other's purpose in the interview situation is. Both must determine how the other describes the situation. Each part needs also to determine how the other is responding to him, that is, he has to ascertain the other's view of self as well as the self the other is imputing to him. Moreover, the discussion proclaims that the interview is a peculiar type of human interaction since it represents the coming together of two persons who are strangers. This in turn reinforces the interviewers to take control of the situation and to define it so that the questions he asks will be answered by the time he departs.

The success in carrying out such a task rests upon two main things: One is that the interview must translate the research objectives into specific questions, the answer to which will provide data necessary for examining the phenomenon under study. The other is that the interview must assist the interviewer in motivating the respondents so that the necessary information can be given. As a result, the question becomes the major unit around which the interview is constructed. Such a situation proposes a number of prerequisites (Denzin, 1970). Questions must accurately communicate meaning to respondents. They must also encourage him to become involved and to communicate clearly his attitudes and views. They should be clear enough so that the interviewer can easily convey meaning to the respondent. They must also be precise enough to accurately convey what is expected of the respondent. Most of all, the interview situation must be seen as a very special relationship, one often freely entered,

and one in which information is exchanged. It is commonly claimed that information is more valid if it is freely given and this assumption is stressed (Denzin, 1970). Elsewhere, (Agar, 1980) suggests that the researcher must enter the setting as a stranger, earn the trust of participants, and establish a level of intimacy with the participant so that they will be willing to share information freely with the researcher. To finish, it has to be acknowledged that the sense of perfect quality rarely fits any interview. Thus, the interviewer needs to ask himself to what extent it is yet possible to fully understand the complexities of the interview interaction. Mason (1996, p 40-41) suggests that 'it is better to try to understand the complexities of the interaction, rather than to pretend that key dimensions can be controlled for'. Qualitative interviewing is yet considered to be an appropriate and practicable way that the researcher employs to discover the central ontological components of social reality.

3.7 Data Analysis and Writing-up the Research.

Qualitative data analysis procedures differ from those applied in quantitative research. The first challenge that faces a qualitative investigator is to efficiently and quickly transfer a pile of field-notes, audio-tapes, and documents into a readable form for data analysis. The qualitative data represents a set of naturally occurring and ordinary events in their natural settings. This data primarily seeks to describe what real life experience looks like. The focus of the analysis process should be targeted to a particular case. That is, a focused and bounded phenomenon in its context must be stressed. Because the power of qualitative data rests conveniently upon the competence with which its analysis is managed, the examiner has followed three interrelated stages of data analysis during conducting this research (Miles & Huberman, 1994). This approach of data analysis is called 'the flow or interactive model' (see figure 3.2).

Figure 3.2: Components of Data Analysis Scheme (Miles & Huberman, 1994, p 12).

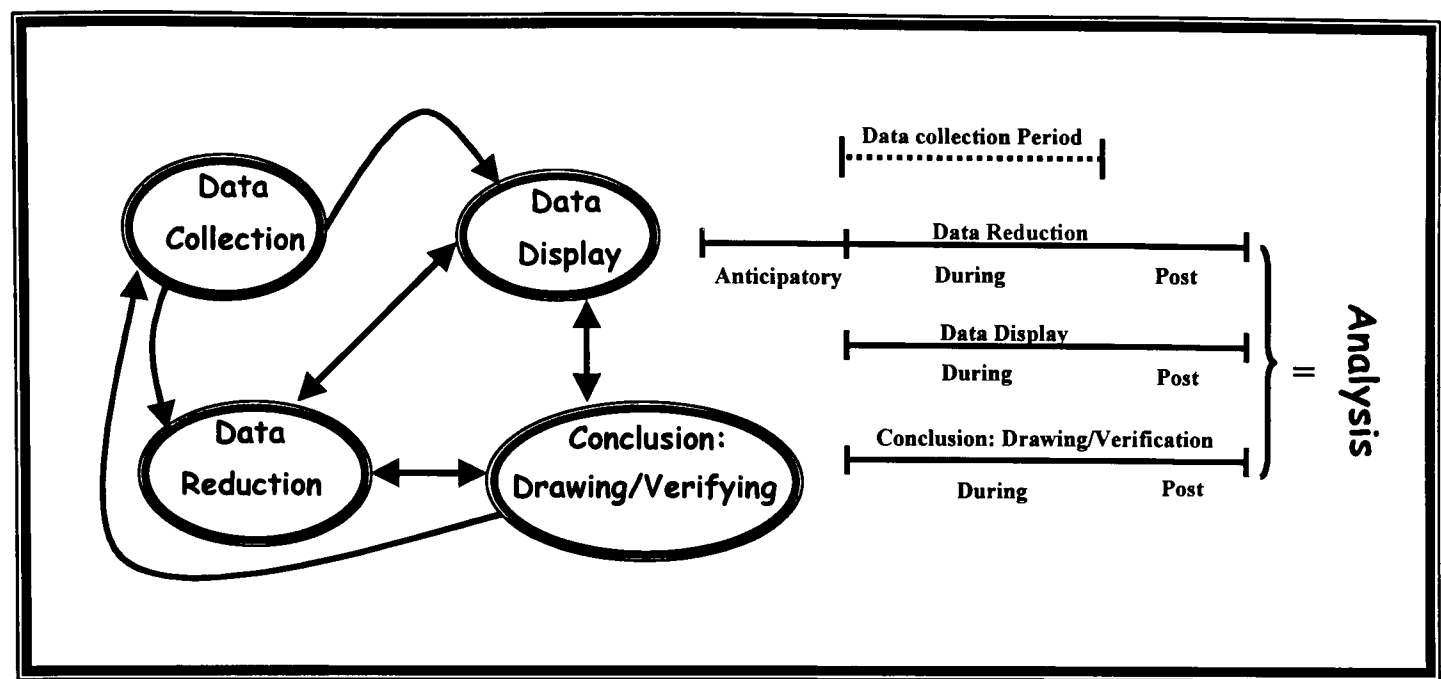


Figure 3.2 demonstrates that the interactive model of qualitative data analysis entails three interconnected stages of data analysis. These include data reduction, data display, and conclusion drawing and verification. The implementation of *data reduction* allows for an enormous amount of data from different sites to be condensed. A recent review of the literature, a choice of specific cases to examine, an emphasis on specific research questions, and a choice of particular data collection methods are all factors that guided the data reduction phase of this research. Drawing on Miles and Huberman (1994) and Strauss (1987), data reduction, simplifying, and abstracting were taking place throughout the writing of memos, coding and testing out themes. Data reduction proceeded as a continuous process before, during, and after the fieldwork. Data reduction has also been viewed as a part of the analysis process, since the examiner had to decide on which data should continue to be coded and which to take off, which models best abbreviate a number of issues and which developing story to narrate (Miles & Huberman, 1994).

In contrast, *data display* was utilised in this research to organise and to compress data in a form that allowed conclusions to emerge. It is a process whereby the examiner incorporated the field-data in an accessible form (Maykut & Morehouse, 1994). Consequently, the examiner was able to view and to recognise what was happening in a particular setting. Data display contains decisions on what sort of data is to be displayed, in what form, and how it should be handled (Huberman & Miles, 1994). This process helped the examiner to deal with a number of propositional statements that emerged during conducting the research. The *conclusion drawing and verification* phase, alternatively, has enhanced the interpretation of final conclusions. It is a process whereby the examiner was able to understand what things mean, to observe regularities, to build patterns, to make explanations, to explain relationships, and to raise valid propositions. The comparison

between 'what was predicted based on the literature' with 'what has emerged from data analysis' has, consequently, allowed new patterns and relationships to develop. The verification process has also been practised to validate and substantiate results. This process has required the examiner to revisit the original data and field-notes repeatedly. The verification process has also helped the examiner with the revision of the research argument, to build interrelated explanations, to establish consensus and to replicate findings in another data set. Because the investigation focused, first, on what was going in a particular setting and second, on how and why it was going on, data reduction, data display and conclusion drawing and verification were treated in parallel with the data collection stage.

Having mentioned that, it is now worthwhile to turn to a brief discussion about the use of 'within' and 'cross' case analysis in this research. Within case analysis was practised to understand a set of organisational learning practices- that is, how and why they take place as they are. By this stage, the analysis process sought to break down complicated management practices into more understandable and simple components. The conceptual perspectives that originated from Dixon's (1994) model assisted in completing this task. The analysis process was also opened out to describe how these components qualified together in view of the emerging conceptualisation of the phenomenon. This, subsequently, allowed the current research to examine the coherence of existing theories and also, to explore a new area and to build a framework around it (Miles & Huberman, 1994). In other words, the research moves from telling a first story about each individual case so as to construct its elements, to building a framework that explains how these elements are interconnected and influence each other. By this stage, the examiner sought to establish explicit dialogue between ideas and evidence and to ensure that all relevant data were investigated and irrelevant data were not sneaked in (Huberman & Miles, 1998).

The cross case analysis was, alternatively, deployed in the research to provide a powerful mechanism that interrelates a number of variables and processes together across different cases. The focus was to establish deep understanding and explanation and also, to address the possibility of applying findings beyond the boundaries of a particular case. The cross case analysis was run through the case comparison approach to integrate the material and furthermore, to build plausible explanations (Miles & Huberman, 1994; Yin, 1994). The examiner intended to examine the learning processes and outcomes across the cases, to understand the conditions that affect them, and hence, to develop effective explanations. General insights that relied on the systematic analysis of each individual case study have emerged. The principal through which external validity can be established was also generated (Huberman & Miles, 1998). The implementation of cross case analysis has relied

on linking a set of variables along with the specific case flows. The process began by writing up each case based upon the use of a set of variables that emerged from reviewing the literature. Utilising data display mechanisms that allowed an in-depth analysis for each case to appear enhanced this process.

Practising cross cutting variables along with content analytical summary tables (a way of bringing together basic information from different cases into one comparison table) then emerged to allow the systematic comparisons to arise, but with all cases at once (Miles & Huberman, 1994). This mechanism, consequently, enhanced understanding the pathways through which the flow of events and circumstances were built in the different cases. Assigning data to fewer distinct sets of indices has also helped in condensing, grouping and standardising data and hence, making it more comparable (Miles & Huberman, 1994). Data were, therefore, conceptualised in relation to a set of variables with reference to which cases it originated from. The inductive analysis allowed categories, themes and patterns to emerge from data. This, in turn, enhanced understanding the structure and main trends of data across the four case studies. Moreover, each bit of knowledge could be traced back to the initial case analysis for clarification.

The contrast tables also served to understand the general meaning of variables and how they worked across the different cases (Miles & Huberman, 1994). The use of data illustration and diagrams supported that process. Accordingly, useful information on how close or distant the four case studies are emanated. This research has also made use of QSR NUD*IST (which is a software product designed to assist the process of qualitative data analysis) to run text search across different documents. Generally, QSR NUD*IST is a software product designed to assist the process of qualitative data analysis (Gahan & Hannibal, 1998; Richards, 1998). The name QSR NUD*IST is derived from Qualitative Solutions & Research Non-numeric Data Indexing, Searching and Theorising. Overall, the use of the computer has created a proper environment to store data, to explore ideas, to minimise clerical work, and to maximise flexibility (Richards & Richards, 1994). Writing up the research has completed the data analysis process. Writing up the research has provided an opportunity to reflect what the investigator has heard, seen and understood. It has also assisted the ability to generate the harmonic sound of data coming together in narrative form to make sense of the phenomenon being studied (Maykut & Morehouse, 1994; Wolcott, 1990).

3.8 Triangulation.

Because of the use of multiple methods in the data collection stage, an exercise of triangulation was valuable to improve and to verify the findings obtained from the study. By confirming a specific interpretation through using different sources of evidence, the triangulation process reduces the uncertainty associated with that interpretation (Campbell & Fiske, 1959; Webb *et al.*, 1971). Triangulation is a 'process of using multiple perceptions to clarify meaning, verifying the repeatability of an observation or interpretation' (Stake, 1994, p241). However, it should be noted that no observation or interpretation is completely repeatable. The logic beyond triangulation develops from the notion that no sole method will allow an investigator to develop propositions free of rival interpretations (Denzin, 1989). The comparison of data from different sources adds intelligence unavailable from comparison of data within a single source (Webb *et al.*, 1971). Triangulation intends to clarify a meaning by outlining the different ways through which the phenomenon is being viewed (Huberman & Miles, 1994). Triangulation assumes that any bias intrinsic in particular data sources, investigator, or method would be naturalised by association with other data sources, investigators, or methods (Jick, 1979). Triangulation, consequently, places much weight on propositions that can repeatedly be noted in more than one source leading to the same analytical conclusion.

The combination of different methods might appear either in the form of 'within methods approach' or 'between methods approach'. Within method triangulation is most frequently used when the observational units are seen as multidimensional (Denzin, 1989). The investigator often chooses one method (i.e., survey) and uses multiple strategies within such method to investigate data. Between or cross methods triangulation, alternatively, incorporates different methods (e.g., survey and in-depth interviews) to lighten the same category of the phenomenon (Jick, 1979). The logic beyond the use of 'between or cross methods triangulation' is that the flaws of one method are often the strengths of another; and by linking methods, the examiner can get the best of each while manipulating their individual deficiencies (Denzin, 1989; Janesick, 1994). This form of triangulation assumes that single method studies are no longer justifiable in the social sciences. However, it must be remembered that 'there is no magic in triangulation' (Patton, 1980, p 330). Scholars applying various methods in examining a phenomenon should not thus anticipate findings produced by these methods to afford a congruous picture (Lincoln & Guba, 1985). However, the rationale is that this form of triangulation allows different pictures to emerge and also, adds rigor, breadth, and depth to an investigation (Flick, 1992). Generally, triangulation can be used to develop a holistic view (Jick, 1979; Morse, 1994), to maintain control over cases

(Miller & Crabtree, 1994), or to achieve broader results (Fontana & Frey, 1994), to validate findings (Richardson, 1994), and to enhance the credibility of inferences (Green, 1994).

It is now meaningful to explain the implementation of triangulation in this research. The current research utilises triangulation to triangulate the field data within and across methods and according to data sources. The former attempts to establish internal consistency or reliability. The latter examines the external validity (Denzin, 1989). The triangulation process also continues to triangulate data by sources. In other words, the current research seeks to employ different data sources that highlight the subject under investigation. Table 3.4 gradually explains the use of triangulation in the current research.

Table 3.4: The Implementation of Triangulation.

PHASE	MEANING	DATA COLLECTION METHODS	TRIANGULATION METHOD
• Asking the questions	The research attempts to establish the basis for an empirical conformity. Participants were asked to give interpretations for a set of events and experiences.	Interviews Documentation	Within methods
• Deconstruction	The examiner went through a critical review of the literature to examine theories, concepts, and understandings that surround the phenomenon under investigation. Each individual proposition was interrelated to its original source and meaning.	Documentation Observation Interviews	Within and cross methods
• Exploration and capture	By this stage, multiple instances of the phenomenon were sought out and explored in their settings. Intensive use of triangulation to collect as many instances as possible of the phenomenon was deployed.	Documentation Observation Interviews	Within and cross methods
• Intense Involvement and classification	The examiner increasingly associates with the phenomenon under study and also, shares the world of those under investigation. Hence, the process of data categorisation was begun to reduce the phenomenon into its essential elements.	Documentation Observation Interviews	Within and cross methods
• Tentative interpretation	Interpretation about how the processes and interactions observed affect one another begins. This process is further expanded to specify whether emerging interpretations make sense or not.	Documentation Observation Interviews	Within and cross methods
• Contextualization	The examiner continues to advance more interpretations. This process is also extended to return what was categorised into interaction to generate new themes.	Documentation Interviews	Within and between methods
• Examination of deviant cases	Here, the examiner works on revisiting some cases to provide interpretations that reveal the various ways in which the phenomenon under investigation operate in the actual settings.	Documentation Interviews	Within and between methods
• Advancement of alternative interpretations	The examiner sets alternative interpretations of the phenomenon in unexpected cases. For instance, the examiner had to find explanation for the case study (D) value-based management logic and to incorporate that into the final analysis.	Documentation Interviews observation	Within and cross methods
• Presentation of the final analysis	All cases are now interconnected into a coherent interpretive framework that explains the different elements of the phenomenon. The use of Dixon's (1994) collective learning cycle enhances such process.	Documentation Interviews observation	Within and cross methods

3.9 Conclusions.

The current chapter was composed of six main sections. The first section is devoted to explain the use of Dixon's (1994) model in guiding the empirical study of this research. The second section is assigned to highlight the strategy of the current research. Because the nature of the current research is an exploratory where the focus is on examining the actual practice of organisational learning in four organisations, the case study approach was adopted and critically presented. The third section is devoted to explain the general research design that has been used in this thesis. The research design introduces the logical steps that were employed during the empirical study of the current research.

Section four of this chapter is dedicated to clarify the different methods of data collection that were employed in the research. Four methods of data collection were utilised. These include in-depth interviews, documentary sources, observation, and informal interviews. Section five is dedicated to discuss a number of issues that are related to improving data quality. Section six is devoted to clarify the data analysis and writing up stage of this research. This research has relied on an interactive model of data analysis. This model enhances the progress of various perspectives from the four case studies. This model also provides the required depth of the theoretical underpinning that allows a new framework to emerge through the course of the study. Section seven of this chapter advocates the use of triangulation in the current research. Because of its importance, Denzin (1970, p 83) argued that multiple methods must be deployed in every investigation because no single method is free of rival causal factors. Denzin (1970) also added that no single method could definitely reveal all relevant features of empirical reality for a theory development. Consequently, it was desirable throughout this research to locate as many data sources as possible to increase the possibility that the emerging inferences are reliable.

CHAPTER FOUR
CASE STUDY (A): COMPANY (A)
(Promoting for learning via participative teamwork)

Chapter Four

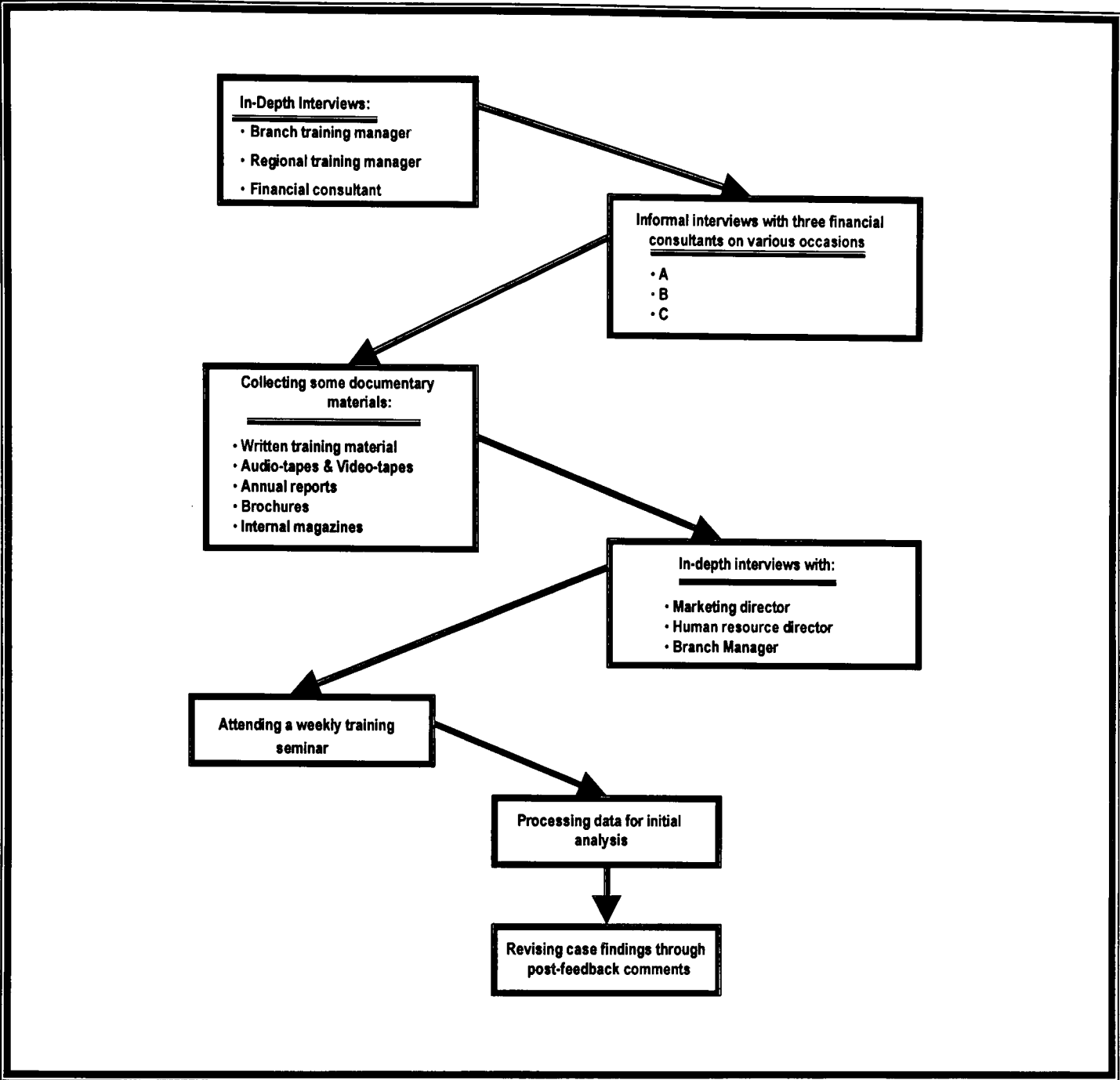
Case Study (A): Company (A)

For our customers to achieve their financial goals, they need to be able to get information and services from us when they need it in the way that they want it. Because of that, we're using all our resources to make sure that our customers can get the information and services they need from us at anytime from anywhere (Marketing Director, company A).

4.1 Background.

Company (A), established in 1848 to sell life insurance to traditional professional classes, is situated in a small set of rooms in London Ludgate Hill. The company is now an international corporation meeting the savings and retirement needs of 10 million clients in the United Kingdom, United States, Asia and Australia and managing £ 150 billion on their behalf (the company Interim report, 1999). It is one of the largest diversified financial institutions in the world and offers a full range of products and services and fund management to millions of clients worldwide. Born into the huge demographic and social change of the industrial revolution, company (A) is today an association with a broader extent of services, a wider geographic spread and excellent investment power, more than could ever have been imagined in 1848. Today, company (A) is extremely different from the one that dominated the domestic market at the end of the 19th Century. With half of its sales and profits now coming from overseas, company (A) is a truly international business operating in ten countries around the world. It offers a broad-based range of products through the supply of independent financial advisers directly by salesforce, or over the telephone, mail, and in some of its markets as well as through the Internet or electronic trading. Figure 4.1 below presents case study (A) planning process.

Figure 4.1: Case Study (A) Planning Process.

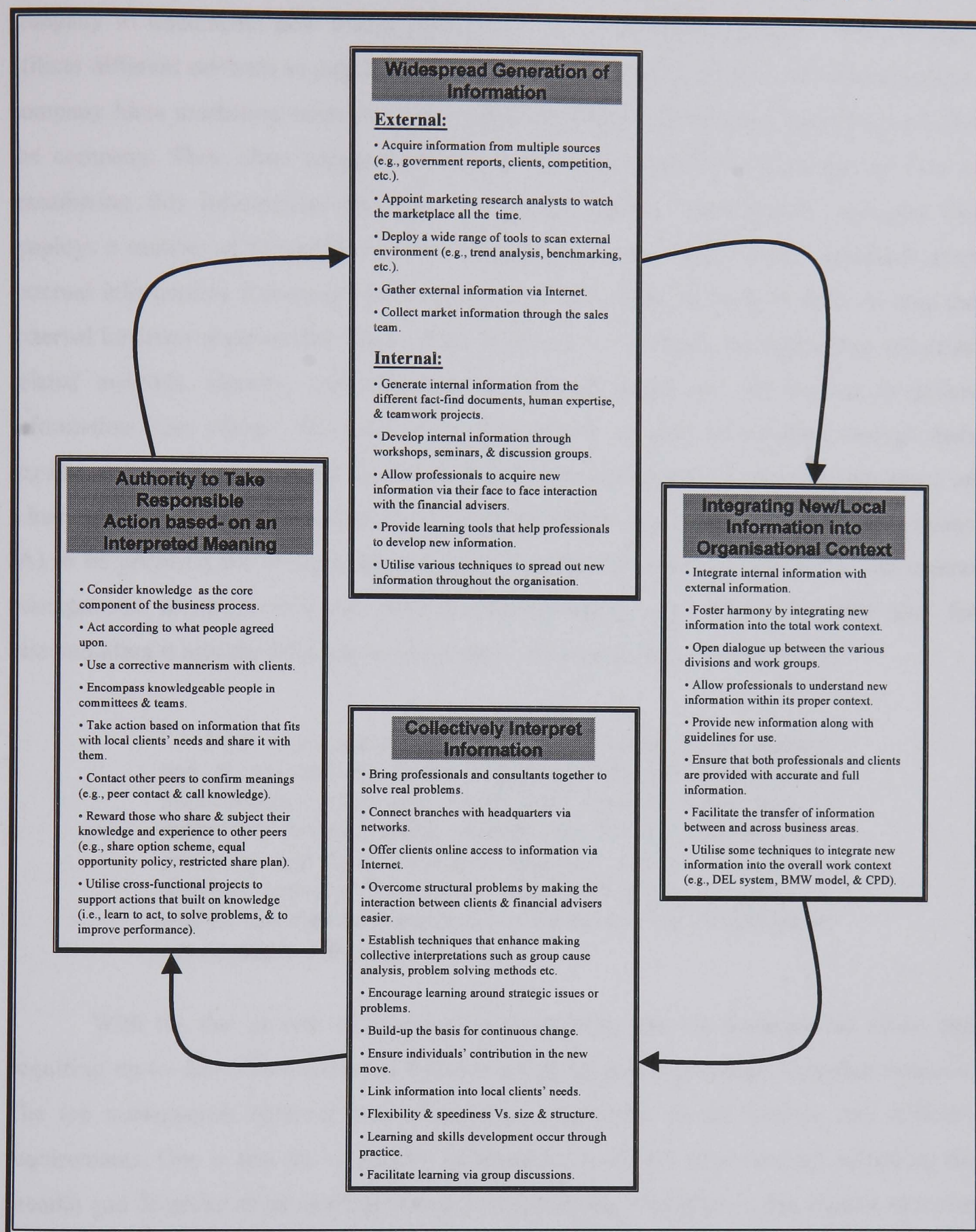


4.2 The Basic Steps of the Organisational Learning Cycle: Company (A).

This section of the chapter examines the practice of organisational learning in terms of the four-step cycle inside company (A). It is an attempt to explain how and why organisational learning takes place in the company. Working with case study (A) data, it is apparent that the learning process mainly passes through the development of unique sales' models that the company can replicate in various markets. Organisational members often learn to put these models into practice. This way of practice is increasingly strengthened through the several methods of training and development that the company frequently provides. It is made obvious through the empirical examination of case study (A) that organisational members maintain a conscious view regarding the overall mechanisms that the company implements to facilitate collective learning as well as its long-term consequences to the business. This is often made achievable because organisational members consider both continuous learning and skills development as critical elements of their

everyday work practices. The company has put in place a number of methods that help organisational members to acquire internal and external information. It has also established a number of organisational tools that facilitate the integration of new information into the entire organisational context. Besides, the company has created a set of organisational processes that helps organisational members to build up collective views on various important business issues. The company has also put into practice both the reward schemes and organisational processes that strengthen organisational members to take actions based on collectively interpreted meanings. Figure 4.2 below synthesises the basic steps of the organisational learning cycle of company (A). In the following sub sections, the different stages that construct this learning cycle will be discussed.

Figure 4.2: The Basic Steps of the Organisational Learning Cycle: Company (A).



4.2.1 The Widespread Generation of Information.

◆ External information.

Company (A) acquires external information from multiple sources that are located outside its boundaries such as clients, government, competition, industry, and benchmarking. Company (A) is very successful at evaluating the external market in which it operates since surveying the market and listening to clients are two main prerequisites for its business success. The human resource director explains that the company hires a large number of

analysts to watch the marketplace all the time and identifies this as a means to help the company to understand how things change and how competition changes. The company utilises different methods to capture information on and from its market. As an example, the company hires marketing research professionals that serve as boundary spanning units for the company. They often engage not only in capturing market information but also in transferring this information into the organisation rapidly. Furthermore, company (A) employs a number of financial analysts; their main task is to make useful inferences from external information. Company (A) also exploits a wide range of tools in order to scan the external business environment. These tools include trend analyses, benchmarking and other related methods. Besides, company (A) has recently employed the Internet to gather information from clients. The sales team also gathers external information through their regular interaction with clients. This information helps company (A) to make decisions on which products should be developed and which should be discarded. It also allows company (A) to be prepared for changes that are likely to affect its business prospects. The central management is responsible not only for manipulating new information but also for disseminating it into the different business units. As a marketing director puts it:

“... Most of our actions and decisions are based on information and as an example I run a group called the performance improvement group. And we’ve been through the process of defining a system, which gathers data for us from reported problems and from customer inquiries and as well, from different customers’ locations. And we’re going to use or to analyse this data to measure a set of measures we’ve defined in our contracts with clients”.

With the fast growth of information technology, the top management views that acquiring up-to-date information has become a critical and increasingly complex function. The top management believes that information acquisition should balance two different requirements. One is that the company's information needs are wide-ranging, reflecting the breadth and diversity of an external business environment. The other is that human attention and mental capacity operate within constraints so that the company has to be selective about the message such information delivers. Accordingly, company (A) has commenced a plan to regularly evaluate and to monitor its multiple sources of information. This sort of planning helps the company to deal with the complexities and challenges that threaten its businesses. A regional training manager explains that the company runs a lot of customer satisfaction surveys and events driven through the sales teams. He stresses that such gathering of external information from clients is a continual process in the company. By gathering new information from multiple sources, company (A) seeks to create a flexible climate in which

various meanings can be developed. This, in turn, helps the management to reflect on the external marketplace from different viewpoints. Because of the lack of a systematic programme for benchmarking, company (A) has recently commenced a growing programme for organising an effective technical information platform through subcontracting with a big US company. This project authorises company (A) to capture the benefits of benchmarking, competition, as well as other external information.

♦ **Internal information.**

Internally, company (A) encourages organisational members to generate valuable information from different sources. Organisational members are always strengthened to generate internal information and ideas by accessing a number of different fact-finding documents, by lifting from an experience of others inside the company or through working together in team projects. Teamwork is the most common method that organisational members exploit to generate new knowledge. Company (A) also encourages organisational members to generate internal knowledge and ideas by interacting with financial experts in the company, particularly when the subject of inquiry seems to lie behind their existing knowledge. Internal information can also be generated through the regular communication between organisational members since they are the agents that act and make decisions in view of this information. Internal information can also be developed through internal workshops, seminars, and discussion groups that the company runs. For instance, professionals are always keen to get together and to generate new information by reflecting on past actions- whether they were successes or failures. Company (A) targets the majority of its communication channels to help organisational members to acquire and to update their knowledge. Transforming an internal experience into a shared knowledge base always strengthens organisational members. An existing work methodology motivates organisational members to learn, to provide grounds for their assumptions, and to remain open to mistakes in their reasoning. An open discussion and a direct interaction between individuals help them to validate their assumptions and also, to understand the logic behind others' reasoning.

Company (A) creates an organisational climate in which organisational members share their efforts to generate new knowledge. The core tools that are used to spread out such climate incorporate collective work, cooperation, and open communication. Company (A) expands this system of practice by making the interaction between employees, departments, and management levels easier. It is often the case that a large part of professionals' practical knowledge grows through the physical and social context in which the various financial services are developed. For instance, a number of professionals and financial consultants can

get together to develop knowledge as new issues come in as well as working out real problems. A regional training manager explains that the company has the appropriate infrastructure to develop organisational knowledge across the different divisions of the organisation. The company provides organisational members with a wide range of in house learning materials that include books, audio tapes, open learning packages, interactive discs, computer-based training packages and videos. These materials help them to learn faster and retain knowledge on real-life circumstances. Professionals are also supported to make choices on a number of external qualifications and courses that help them to get to a certain level of professionalism. A core feature of this way of practice is that professionals are given the responsibility for their own learning. This orientation proposes that acquiring new knowledge is a significant aspect of a professional everyday work practice.

♦ **Spread out of new information.**

To speed up a transfer of internal and external information into the entire organisation, company (A) has recently established a new management position entitled 'advantageous training manager'. The critical function of such a manager is to ensure that all employees are supported by the latest information that enhances their work practices. Such practice facilitates the transfer of information from the top management level into the lower level and vice versa. This shift has broadened the knowledge sharing capacity throughout the entire organisation. Company (A) has also established a set of networks that diffuse out new information into the entire group. For instance, company (A) connects its various branches with headquarters via an information network that diffuses the updated information of the industry. Company (A) has made major changes in its information technology infrastructure to accelerate the diffusion of new information into the whole group. A regional training manager explains that the development of information technology and the management of internal knowledge are underpinning distinctive capabilities to design an easy-to-follow work methodology. He goes on to describe that these new changes are directed to distribute new information into the whole company quickly and also, to achieve commercial objectives. He adds that the traditional methods are no longer useful in a new competitive environment. These information linkages, in turn, strengthen the whole company to approach new work practices and to respond quickly. They also enable the company to provide more cost efficient and responsive services to clients.

Generally, company (A) spreads out new information in two ways. On one hand, the top management utilises the top down approach to diffuse information into different departments. The top management achieves this either by bringing together managers from different departments to share knowledge on new policies or by disseminating new

information via the information networks. The top management disseminates new information into different business units for different purposes. For instance, it can diffuse new information to apply new policies and procedures, to launch new services or to adapt to market changes. On the other hand, the bottom up approach serves as a feedback mechanism that sets out to transfer knowledge created at the bottom line into the top management. For example, company (A) has launched a business television initiative with two programmes shown each month in 200 different offices in the UK. This medium of communication has facilitated the two-way participation of employees, with questions handled live on the programme or in written form afterwards. The top management has also used this medium to elicit different views on various organisational issues. The integration between the two approaches helps company (A) to develop unique sales' models and also, to standardise the overall methodology that is being used to internalise knowledge. This, in turn, helps company (A) to lessen the effects of organisational hierarchy upon the speed of information flow throughout the organisation. Besides, it helps company (A) to maximise the utilisation of knowledge across the organisation since the move of knowledge from place to place in the organisation permits individuals and teams to add new meanings to it, company (A) can be better placed to make this knowledge more valuable.

4.2.2 Integrating New Information into the Organisational Context.

◆ **Absorb information as a part of the work context.**

By facilitating the diffusion of information across a wide range of organisational members in the group, company (A) achieves a sort of collaboration in the knowledge creation activities. The top management recognises the importance of linking both internal and external information into the whole work context. It also seeks to foster harmony by connecting new information into the entire work environment. The top management enhances this sort of integration by opening dialogue up between and across different divisions and work groups, particularly when a strategic issue matters. Because the actual literature that company (A) follows with clients always changes, company (A) continuously updates its systemic knowledge base. The human resource director explains that the company has witnessed a substantial increase in the changing nature of the financial industry worldwide, mainly as a favourable result of attracting new services or markets or even new segments of clients. As the management has identified some of the limitations of the existing work methodology, it has started to look at developing the internal competences. He adds that the employees worldwide provide the best example in that they have shown commitment, loyalty, and enthusiasm to develop the business. Because professionals are always trained to understand new information in its proper context, they can be better placed to answer all clients' inquiries when market changes really take place. This way of practice

becomes easier via the growing use of information technology that greatly accelerates information sharing and learning within company (A). The human resource director explains that the company has different information technology related efforts underway, all focused on making sure that clients are provided with better and more trusty products and services.

In fact, the actual work methodology helps employees to absorb new information as a part of the organisational context. Because company (A) diffuses new information with commentary statements, employees always consider this information as organisational instructions that should be underlined in the everyday work practices. For instance, company (A) utilises a committee system as an organisational mechanism in order to solve strategic problems. Once a committee's members solve an emerging problem, they often disseminate the solution into relevant departments with guidelines for action. This way of practice serves as strategic tool that harmonises the overall work practices throughout the entire group. The nature of the financial industry is a central factor in promoting for these practices. Because the business process depends on accurate information and efficient processing of such information, company (A) places much emphasis on disseminating precise information to clients. As a branch manager puts it:

" At the branch level, developing internal knowledge proposes to help clients making efficient financial decisions that overplay their benefits. We're carrying this out by making sure that they're provided with all information they should get and through regularly updating their financial information".

♦ **Development-Event Log (DEL).**

One criterion that company (A) currently employs to evaluate its salesforce rests on whether or not they provide clients with accurate and complete information that meets with their financial needs. To achieve this, company (A) appoints a number of financial consultants that observe and evaluate the salesforce during their conversations with clients in real situations. Besides, company (A) has put into practice an organisational mechanism entitled a "Continual Professional Development" or CPD. The CPD primarily documents the progress of each professional through his career. The CPD thus serves as an essential base in compensation and promotion decision situations. The CPD also ensures that a professional possesses a proper level of understanding, which makes him or her able to deliver particular services into clients.

Because information moves between and across different business units, its integration to the whole organisational context becomes easier. This is illustrated by an example narrated by a branch manager and indicates how fast company (A) integrates new

information into the overall work environment. As the government releases new information that may affect clients' financial positions, it follows that the majority of clients cannot often understand the direct impact of such new information upon their financial situations. Not only do the marketing research professionals access this information but also they deliver it to the central organisation for processing, analysis, and making meanings from it. Once this information is analysed, the next task for the central management is to transfer it promptly into the entire organisation. Subsequently, the salesforce immediately takes this information to clients attempting to organise as many clients as possible to consider the impact of such information upon their financial positions. Accordingly, professionals are more likely to gain clients' trust and hence, sell them more business. This way of practice has two key advantages. *First of all*, it takes into account the several views of the different organisational levels. *Secondly*, it allows organisational members to discuss the situation with someone that can explain what is happening. Consequently, an integration of new information into the whole work context becomes easier.

Company (A) has also put in place a number of mechanisms to enhance this process. For instance, company (A) has established a technique called Development Event Log (DEL), which serves as a continual mechanism for skills and knowledge development. DEL can be opened either by the professional himself or by his manager to pin down existing shortfalls in the personal knowledge. Once a professional's shortfalls are identified, he or she should then sort out the level of knowledge development he or she wants to get to in terms of personal studies and training. DEL serves as a mechanism that helps professionals to eliminate negative attitudes, which limit success. Such frequent evaluation encourages professionals to understand the level of detail that clients need to know and the ways in which new information can be put to use. Company (A) also provides organisational members with an opportunity to attend a set of national conferences that intend to integrate the entire organisation by bringing together individuals from different divisions to acquire and to share knowledge concerning emerging business matters.

It also runs a number of regional conferences and training events that seek to connect different divisions together considering the central policies and potential benefits for local clients. At a similar pitch, at the branch level, company (A) runs regular meetings and discussion groups that provide professionals with an opportunity to share knowledge and insights and also, to enlighten things that were undertaken rightly or wrongly. For instance, a branch advantageous training manager always runs what is called a "BMW Advantage Model Week" that incorporates several training sessions. This model breaks down organisational knowledge in terms of local learning needs. The above discussion proposes

that a large part of information integration is often targeted to make the actual interaction between professionals and clients easier and as well, to create an easy to follow work methodology. As a financial consultant puts it:

"Just naturally as you see clients, as you get involved in conversations one after another. You start to identify where things are being similar in past situations. You just naturally in the sort of, you know where to see clients and what to say for them to get the best effect. Just becoming initiative as that".

4.2.3 Collectively Interpreting the Information.

♦ The Fact-finding Document.

Because company (A) works in a fast changing business environment, it becomes essential for it to renovate its operations and as well, to develop organisational members regularly. The management views that such a move can only happen when all organisational members contribute to carry out the shift. The marketing director describes that there is a strong culture in the organisation about knowing customers, doing things better, and getting to an understanding of what the customer business is about. Company (A) has put into practice a number of processes by which employees not only share knowledge but also make collective meanings from it. For instance, company (A) has established something called Fact-Find Document or FFD, which stands for personal financial review. The FFD intends to update professionals' knowledge through their face to face interface with many financial consultants on the ground. This mechanism, in turn, helps professionals to find solutions for real problems and also, to foster collective understanding about new business initiatives. This way of practice is strengthened by a number of training programmes and discussion groups that company (A) usually runs to familiarise its employees with the way the business as a whole operates. In that way, professionals can be better positioned to recognise the purpose of their actions and also, to understand the reasoning behind these actions.

♦ Networking.

Working with case study (A) data, it is made obvious that company (A) places great value on providing both employees and clients with ingenious information. Company (A) has put in place a number of information networks that connect its headquarters and branches for the purpose of disseminating new information about the industry with commentary statements. These links amongst the different operating companies produce far-reaching understanding on new issues within the entire group. These networks also offer clients an online access to their account information and bill payment over the Internet. For instance, company (A) has established an online electronic information service that links

clients' personal computers to its securities. This service provides clients with access to their account information 24 hours a day, seven days a week. Clients enrolled in company (A) an online information network can use the cutting edge technology to better manage and plan their financial goals. Once enrolled, those clients can access their account information, including balances, security values, transactions, account activity and portfolio allocation. This information is updated twice daily. These networks also allow clients to access daily market commentaries, delayed quotes, charts, research, and investment ideas. They also allow clients to send electronic fund transfers between financial institutions as well as to e-mail their financial advisers. The above links between headquarters and branches and between the organisation and clients have facilitated rapid and effective diffusion of information. This, in turn, strengthens organisational members to understand the company's daily operations.

The development of an Internet-based financial service called 'Egg-Card' represents a good example of knowledge diffusion via networks within company (A). In egg, company (A) has succeeded in establishing the services of the UK's leading financial E-commerce brand and maintained the opportunity to lead the sector in the Internet business. The development of Egg demonstrates the ability of the organisation to absorb new technology that fosters collective learning. The significant success factor in this project was the cross-functional make up of team comprising employees from different divisions within the group. In just nine months from appearance, egg has attracted 550,000 customers and almost £6.7 billion and has had a catalytic influence on other businesses produced by the company (company Interim report, 1999). Consequently, company (A) has benefited from the first mover advantage to generate long term values. The marketing director explains that the company may obtain unique information and become the initial generator of it. The close interaction between clients and various financial advisers has helped company (A) to operate as cross-community and hence, to overcome some structural problems.

♦ **Open dialogue up between professionals.**

Company (A) places much emphasis on its professionals to make collective interpretations regarding key business issues. To achieve this, the management often opens up dialogues between professionals in a collective setting. The frequent face-to-face interaction between professionals results in mutual learning from which to take actions. For instance, when company (A) entered the mortgage market a few years ago, it was an area of rapid expansion. Company (A) brought together both its professionals and mortgage advisers in order to develop shared meanings and common knowledge about changes that were taking place within the market. Professionals are also reinforced to make collective interpretations

regarding a specific problem through discussion groups. Company (A) continuously provides professionals with accurate information that bears upon the problem. For instance, professionals at the branch level usually get together to overcome a specific problem and they can meet yet again when another problem arises. They behave as a community of practice where they share their practical knowledge, which constitutes the base upon which they learn, act, and change. Most of their skills are developed tacitly and collectively through unhampered working relationships.

A branch manager explains that the branch members often work together to develop the sort of knowledge that is directly concerned with the local clients' benefits. He goes on to clarify that the central management provides the kind of support that facilitates such practice. Company (A) supports such mode of practice by providing a branch members with a sympathetic, open, and trusting work environment in which various learning practices develop. Company (A) has also supplied all branches with a number of learning tools and materials that facilitate team learning. The human resource director explains that the company breaks down any barriers that limit team productivity, more likely to limit the managers' role of supervision. He goes on to describe that the company has put into effect the internal structure that maximises individuals' contribution. Company (A) also strengthens organisational members to get together and to utilise a number of techniques that help them to make collective interpretations from information. These techniques include Trend Analysis, Group Cause Analysis, and also, a number of problem solving methods that rely on Total Quality Management (TQM). These techniques are significant because company (A) regards both knowledge and skill development as two areas that should grow through practice. As a financial consultant puts it:

"In the sort of the skills issue and knowledge, we're relying on our people's verbal and principal knowledge. Skills issue is nothing you can describe. It is nothing you cannot actually put it in a pen and a paper. It is, if you like, a sort of body language. It is a mannerism. It is the way you listen to someone. It is the way you hold a meaning. It is the way you've trained and the books you've studied".

♦ **Cross-functional teamwork.**

Through reading case study (A) data, it is found that a large part of collective learning often takes place as a response to specific problems that face either the whole organisation or a particular division. In this regard, company (A) promotes work practices that broaden individuals' commitment to work in teams for resolving emerging problems. Learning might take place around general problems such as a mis-selling problem or the

influence of a new government budget on retirement provision or the effect of new tax law on clients' financial plans. Learning might also occur around a specific problem such as handling the date problem of major information systems applications. Organisational members are often reinforced to make meanings from internal and external knowledge and as well, to work out business problems as these problems emerge. The formation of project teams is common practice within the group. Collective interpretations often occur through the media of joint-working committees that place knowledgeable members in face-to-face contact to deal with particular problems; their participation might take place voluntarily or by selection. By relying on teamworking, company (A) brings together individuals' knowledge and experience to renovate its systemic knowledge base since the existing learning system relies on skilful members' contributions not only to combine existing knowledge but also to make meanings from it.

As an example, company (A) has recently mobilised a comprehensive project plan to systematically correct date problems in its major systems, the company-owned applications and infrastructure across the group. Company (A) provided strong executive commitment when its Year/2000 project was initiated in the third quarter of 1995. Company (A) has committed itself to becoming a world-class project management organisation. It has recognised early on that to successfully make its large and diverse portfolio Year/2000 compliant, it must deploy a disciplined and rigorous project management approach. It identified the Year/2000 project as a mission critical priority so that by the Year/2000 this problem area will have been solved so that this year will be non-eventual for clients. The company's sound Year/2000 project foundation has covered three key components. *First*, the organisational structure was addressed as a crucial component. It has been viewed that the program and project teams must be organised to allow for effective communication, monitoring, tracking, and reporting of status. To build such successful organisational structure, company (A) has assigned people with proven project management skill; their responsibilities reside in managing risk, assessing progress, and reaching into issues as they arise.

Agreed upon operating principles and rules that assured the communication of goals and consistency in project plans were core principles of the Year/2000 project. *Second*, company (A) has adopted a sound methodology, including project plans and schedules, to establish the critical processes that should be completed for all projects. This methodology has covered each aspect of the Year/2000 project: the applications, infrastructure, and external partners. *The third* component was metrics that facilitated the collection of critical project data, consistency in reporting, tracking of plans vs. actual results and management of

the project risk. The benefit from the commitment to the above factors was that the project teams, program offices, and senior management all had a consistent view of the project status. Besides, the flow of information was quicker and more consistent. On February 13, 1998 company (A) became the first insurance company that had the core capabilities needed, and the process in place, to address the Year/2000 challenge. This example proposes that company (A) makes good use of cross-functional teamwork as an internal synergy that strengthens different departments to work together. It also demonstrates that organisational members maintain an excellent ability to build and to exploit effective networks to deal with emerging problems.

4.2.4 Authority to Take Responsible Action based on Interpreted Meanings.

◆ Peer contact.

As company (A) continuously motivates organisational members to act based upon the meanings that they make together through discussion groups or teamworking, knowledge is viewed as an essential component of the business process, but its acquisition is not always a straightforward process. A regional training manager explains that the salesforce has a superior base of knowledge and experience. He goes on to identify that the company has established some tools to reassure the efficient use of this knowledge. A large part of the professionals' actions has to rely on collective meanings, collective meanings that influence the constant relationship with clients. That means, collectively interpreted meanings not only help professionals to adopt a corrective manner with clients but also to share these meanings with clients. This way of practice enables professionals to deliver an appropriate financial advice to clients. Professionals are always required to take actions considering the necessary information that fits with local clients' needs and not in favouring overall work methods upon which these actions should be taken. The actual way of practice proposes that professionals should not only share valuable meanings with clients but also take into account the feedback they get from those clients. As the marketing director puts it:

“Information is only good if you can assimilate it in some way and apply it. We're quite good at that- in terms of customer satisfaction stuff. And it's quite helpful to tell us what we know, where we want to be in the market and our customers have to advocate for us. And that's the way we sustain our competitive advantage. We're acting on customer services feedback we've got”.

Because of their continuous participation in generating new information and in making meanings from it, professionals are more likely to act based upon what they agreed upon. Meanings that emerge from interpreting new information are often embedded in

things, documents, and in people's heads. One mechanism that company (A) applies to encourage professionals to take actions based on shared meanings is entitled 'Peer Contact'. Peer contact represents an online help that a professional can get from other peers by asking them questions via a telephone, an Internet or a direct interface. Through peer contact, professionals can benefit from knowledge that is being acquired by other members in the organisation, in particular, organisational members that have had experience in the same type of situations. Peer contact broadens the knowledge of both the individual that offers the experience and the person who receives it. In so doing, professionals would be competent to provide clients with an appropriate financial advice.

Sharing knowledge with others thus represents one essential criterion that company (A) considers when making compensation and promotion decisions. A branch manager describes that the most important and beneficial thing for clients is to come across the right manner and to make sure that they are given the right information. Informants describe that the importance and existence of skills development forms the vital core competence of an existing management system. The top management reinforces professionals to extend their capability for learning and to act based on collective meanings. A number of valuable learning tools are made available inside the organisation in order to strengthen professionals to act based on a shared meaning. The management views that organisational learning mostly occurs through the social interaction and mutual sharing of responsibility between different work groups. Professionals are encouraged to solve real problems via teamwork and hence, the feedback they retain from a discussion is extremely useful. This way of practice helps professionals not only to build common understanding on various business issues but also to recognise the logic of their actions.

◆ **Reward scheme.**

Company (A) provides many incentives that encourage organisational members to take action by considering and using interpreted meanings. The most obvious of these is the way in which people in managerial and functional areas are promoted and rewarded on the strength of their contribution to the organisational knowledge base. The equal opportunity policy and the participation in the company's savings related share option scheme are two examples of the way in which the company establishes commitment to collective learning. Besides, company (A) rewards its directors with what is known as the restricted share plan, which is contingent upon the achievement of pre-determined returns to shareholders. Company (A) also compensates employees that achieve exceptional performance. Within the UK 60 per cent of the employees currently own shares in company (A). The management

feels that this policy strengthened organisational members to be more committed to the company.

♦ **Call knowledge.**

Professionals are supported to share knowledge and insights with other members in the organisation and also, to assist those individuals that recently recruited to develop their practical skills. Professionals were trained to subject their experience and knowledge to others in the organisation. Individuals that have unique professional knowledge can be selected in teams or committees that are in charge to find solutions for key business problems. Company (A) has established something called 'Call Knowledge'. Call Knowledge serves as an organisational technique that mainly diagnoses existing gaps in a professional's knowledge and skills in a certain area. Once these gaps are identified, Call Knowledge fixes on the level of knowledge and skills development that a professional should get to. In other words, Call Knowledge sets out to ensure that all professionals maintain sufficient knowledge and skills to deliver specific services to clients. This way of practice has been a contributory factor in developing new products, most famously the development of retail banking products that are distributed by the company's salesforce and sold directly. The cross-functional teamwork also constitutes an effective strategic tool that company (A) puts into practice to support organisational members to take actions based on shared meanings. As a branch manager puts it:

"I've been fortunate to work on the development of some bits for big contracts. And we've put together cross-functional teams. So I've seen how the regulators people work, how financial and pricing people work, how the legal guys work, how the sales person works and how customer service person would think. And that's good because you then get to see how facts and customer data can be taken and developed in different ways and between ourselves. And this is really where a competitive advantage is actually matching your solution".

Company (A) often carries out a number of learning sessions that are targeted either to tackle specific problems or to help individuals within a particular business unit to function well in the marketplace. These learning needs basically emerge from an existing product portfolio that company (A) is increasingly expanding through take over or through entering new areas and markets. An existing organisational culture plays an important role to encourage team members' commitment and to facilitate knowledge sharing. This culture also strengthens organisational members to cope with changes quickly. The marketing director explains that the work team exhibits the progressive richness of collective work, creativity, and ability to adapt, as a group, to changing environment. The company tends to focus more

tightly on building up an experience that offers the most desirable outcomes in each business division. This, in turn, generates simple sales' models that can be replicated in various external markets. Such a focus is obvious in a number of policies adopted in different divisions or functions; these policies hang together in a coherent manner to support achieving an overall purpose. A large part of divisional learning is principally targeted to improve the organisational performance. Company (A) always assesses and rationalises a geographical spread based on the performance of each business area in the marketplace.

Working with case study (A) data, it is made obvious that individuals often learn to overcome existing problems or to comply with future business challenges. A branch manager explains that professionals are supported to generate solutions and suggestions from past situations and experience. He goes on to describe that this sort of practice enhances the development of innovative ideas. Company (A) also freely offers successful examples of good practices that derive from different divisions to the entire organisation. A regional training manager describes that each example provides employees with clear guidelines on how to operate effectively and to ensure quality in the provision of various services. It is claimed that successful examples help professionals to improve their work practices. Company (A) promotes for successful practices via a number of training courses, discussion groups, and organisational conferences. By this means, professionals can be better placed to take up the advantages of collective work, to contribute, and to act as a group. The human resource director reveals that the top management identifies shared learning and creativity as vital aspects of the organisational future vision. The above discussion acknowledges that company (A) provides organisational members with an opportunity to act based on collectively interpreted meanings. However, external regulations and requirements often govern the space available for taking an action.

4.3 The Way in Which Company (A) Assimilates and Exploits Knowledge to Sustain and to Strengthen a Competitive Advantage, as Managers Perceive it.

Drawing on managers' perspectives, this section explores and conceptualises the way in which company (A) assimilates and exploits collective knowledge to sustain and to strengthen organisational achievements. This section sets out to explain the way in which company (A) integrates and utilises collective knowledge to generate competitive outcomes. In particular, this section builds on informants' views in order to describe how different organisational learning practices are configured and employed inside company (A) to strengthen long-term business success. Since all competitors work from the same external knowledge base, access very similar external materials, and even their staff do similar

examinations to get external qualifications, company (A) increasingly exploits its store of internal knowledge to differentiate its products, services, and business practices from other competitors. A branch manager explains that because company (A) maintains a good knowledge structure, which benefits from an accumulation of experience for more than 150 years, there are many products that are originally developed inside the company. Similarly, Dierickx and Cool (1989) claim that companies that already have a significant stock of knowledge are often in a better position to make further breakthroughs and add to their stock of knowledge than companies that have a low initial level of know how.

Overall, participants view that for company (A) to maintain its long-term business success it should assimilate and utilise collective knowledge in the way that yields competitive outcomes. Participants also explain that company (A) adopts a long-term perspective to better employ existing knowledge. They claim that the uniqueness of the existing collective learning methodology relies on a number of organisational elements. These elements include a set of work values that are implanted over a long history, internal strengths, collective culture, a number of distinctive in-house training and development programmes, a reliable storehouse of internal knowledge and an expertise, stable relationships with clients, and a number of information networks that set out to diffuse new information into the entire organisation and as well, to clients. Participants claim that internal knowledge plays an important role to the business success. They view that it is difficult for other companies to imitate this knowledge because it is built on long-term experience and changes made to it all the time. Similarly, Garud and Nayyar (1994) argued that the ability to maintain internally developed knowledge over time is important for corporate vitality.

Reading of case study (A) reveals that organisational learning strengthens a competitive advantage in three integrated ways: (1) collective learning results in perceived clients' benefits, (2) the way through which collective knowledge is developed and exploited is difficult to transfer, and (3) such collective knowledge can be leveraged to a wide variety of financial markets. Similarly Cutcher-Gershenfeld *et al.* (1998, p 57) argue that knowledge has become one of the most powerful forces of competitive advantage in today's marketplace. Company (A) devotes great efforts to create a unique internal knowledge structure. This knowledge structure principally depends on individuals' capabilities and tacit skills. These skills strengthen the organisation to develop efficient sales models that generate an increasing value to clients. These sales models require individuals to share knowledge and experience on the sales process. Documentary materials around these sales models are also difficult to replicate outside the organisational boundaries because they are built upon particular areas of conversation where sales people have trained. A financial consultant

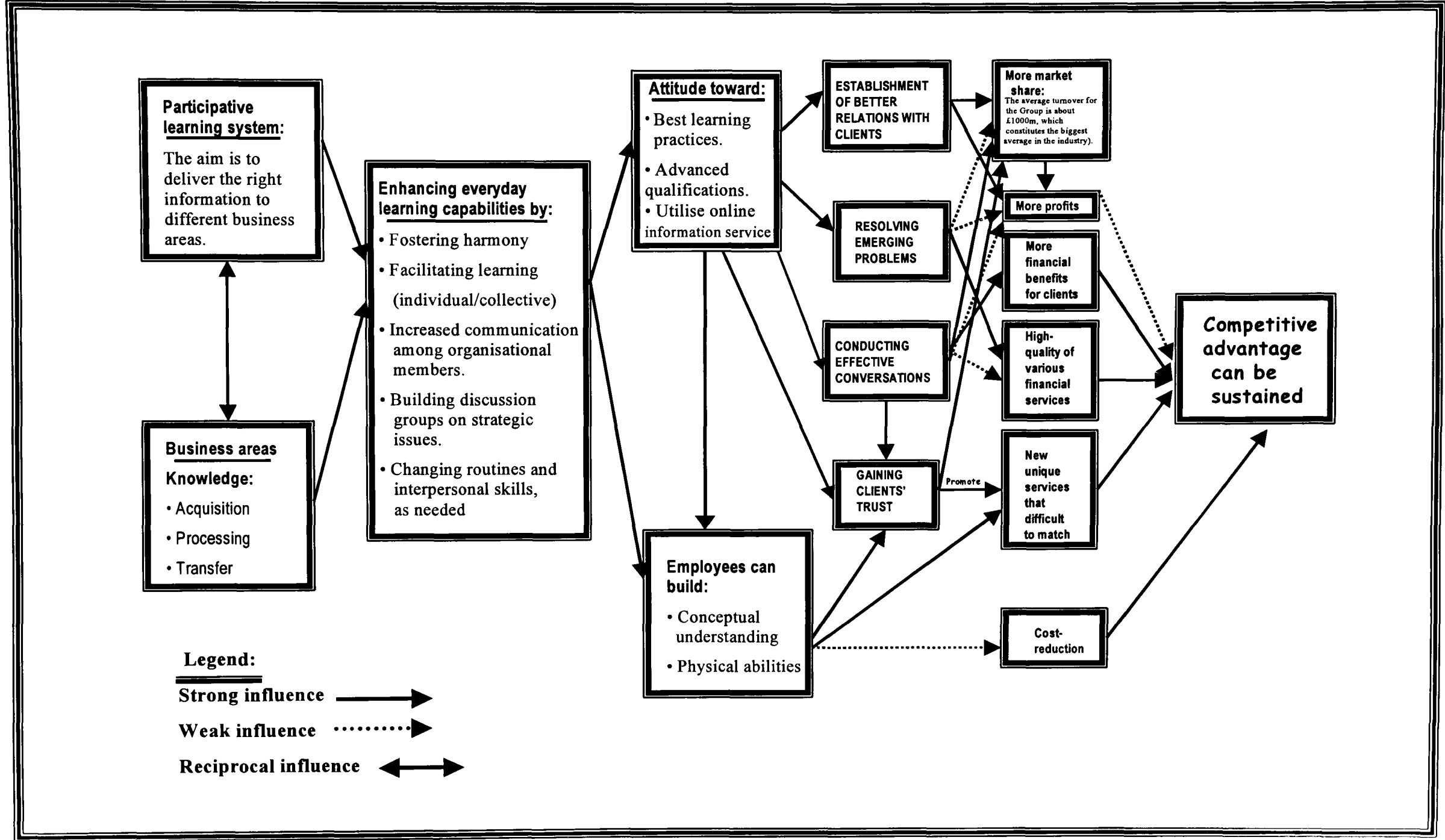
describes that maintaining these documentary materials by competitors will be useless unless they acquire these tacit skills. He goes on to claim that a lot of new business opportunities come from the way individuals employ to speak to clients. He also adds that verbal and non-verbal knowledge is something essential to the business success. Because this knowledge is continuously developing it becomes a core competence upon which company (A) adapts quickly to changes that take place in the marketplace.

Company (A) implements a participative approach for collective learning. Initially, this approach seeks to transfer relevant knowledge into different business areas within the whole organisation. Business areas then begin to capture, to process, and to disseminate such knowledge in the way that enhances building up the capability for organisational learning. The management strengthens this capability by fostering harmony, facilitating learning at the individual and organisational levels, providing organisational members with a variety of communication channels, encouraging discussion groups on strategic issues, and as needed changing routines and interpersonal skills. In so doing, the management can be better positioned to reinforce organisational members' attitudes to perform best practices and to update their knowledge. Providing organisational members with an opportunity to get further advanced external qualifications and to access a number of online information networks can do this. As a result, organisational members can be better placed to develop conceptual and practical skills that help them to establish better relationships with the clients, to resolve clients' financial problems, to conduct effective conversations, and to gain clients' trust. These practices in turn enable company (A) to enrich an existing market share and to gain more profits.

In addition, company (A) can be better positioned to provide clients with extra financial benefits and with a number of well-developed and integrated financial services. Company (A) creates new financial services based upon utilising an existing collective knowledge base. Company (A) has actually managed to develop a variety of new services that kept it ahead of its rivals. These new services are difficult to match because they are developed by considering a distinctive internal knowledge base. This knowledge base is developed and updated on an ongoing basis. By sharing knowledge throughout the entire organisation, professionals can be able to deliver cost efficient and responsive products to clients. In that way, professionals can be better placed to nurture an excellent corporate image in the eyes of clients. As a result, clients will be more loyal to the company and its various products. Drawing on managers' views, figure 4.3 below represents the way by which company (A) assimilates and exploits collective knowledge to strengthen and to sustain a competitive advantage. Figure 4.3 proposes that company (A) traces its competitive

advantage to organisational learning in three complementary ways: (1) organisational learning leads to greater services and processes uniqueness, (2) the distinctiveness of internal knowledge prevents competitors from imitating it, and (3) the accumulation of internal knowledge over time allows company (A) to develop unique sales models and to build more social and stable relationships with existing clients.

Figure 4.3: The way in which company (A) assimilates and exploits knowledge to strengthen and to sustain a competitive advantage, as managers perceive it.



4.4 Conclusions.

The case study above explains the way through which company (A) approaches organisational learning in practice in terms of the four-step cycle. The chapter discussed two main sections. The first section is devoted to describing the basic steps that construct the collective learning cycle of company (A). It is evident that company (A) has greatly invested in each of the steps of the organisational learning cycle. In the first step, widespread generation of information, company (A) has accomplished considerable progress. Company (A) has made intensive efforts to engage organisational members in collecting external information. Each professional learns to gather information through his or her direct interface with clients. The marketing research specialists collect external information from multiple sources. Professionals are also encouraged to interact with external experts to capture new experience as new issues appear. Company (A) has also put in place a number of techniques that allow organisational members to generate internal information. Discussion groups and team projects are two among many effective ways that company (A) utilises to generate internal information and ideas.

The second step of the organisational learning cycle, integrating new information into the organisational context, is achieved by a number of activities. These activities include the use of an effective communication system comprising meetings between different operational levels, distributing information with commentary statements, and the Development Event Log (DEL) mechanism that links information in relation to the local clients' needs. Perhaps the most efficient tools are the conferences and training workshops that the management often carries out to bring together professionals from various divisions and from different levels to share knowledge and to draw lessons from past situations. Information networks that company (A) has recently put into practice increasingly facilitate the third step of collectively interpreting information. Much of the interpretation of information inside the organisation often takes place through collective discussion between professionals in different group meetings whether at the local or at the national level. The cross-functional teamwork is another significant tool that company (A) exploits to build collective interpretation from new information. The fourth step, authority to take responsible action based on an interpreted meaning, is facilitated by a number of processes. These processes encompassed peer contact, call knowledge, and reward schemes. Organisational members are also encouraged to act and to make decisions by considering common knowledge and meanings that must comply with the external regulations and requirements.

Drawing on managers' perspectives, the second main section of this chapter was assigned to highlight the contribution of practising organisational learning toward the maintenance of long-term business success within company (A). This section mainly examined the way by which company (A) assimilates and exploits collective knowledge to generate competitive outcomes. The reading of this section proposes that managers increasingly place greatest value on the support of collective learning to differentiate the company, its products and services, and its processes from those of its competitors in the eyes of its clients. Company (A) adopts a participative learning approach that allows organisational members to work in teams and to create values from sharing knowledge and lessons learned. Not only does learning result in improving conceptual and practical skills of professionals but also in disseminating best practices throughout the entire organisation. Consequently, employees become more competent to establish close relationships with clients, to solve clients' emerging problems, and to carry out effective conversations with those clients. This, in turn, helps company (A) to improve its market share and profits, to launch new services, to enter new markets, to deliver cost efficient and responsive products, and to improve the quality of a service provision.

CHAPTER FIVE
CASE STUDY (B): COMPANY (B)
(Promoting for learning via knowledge-seeking culture context)

Chapter Five

Case Study (B): Company (B)

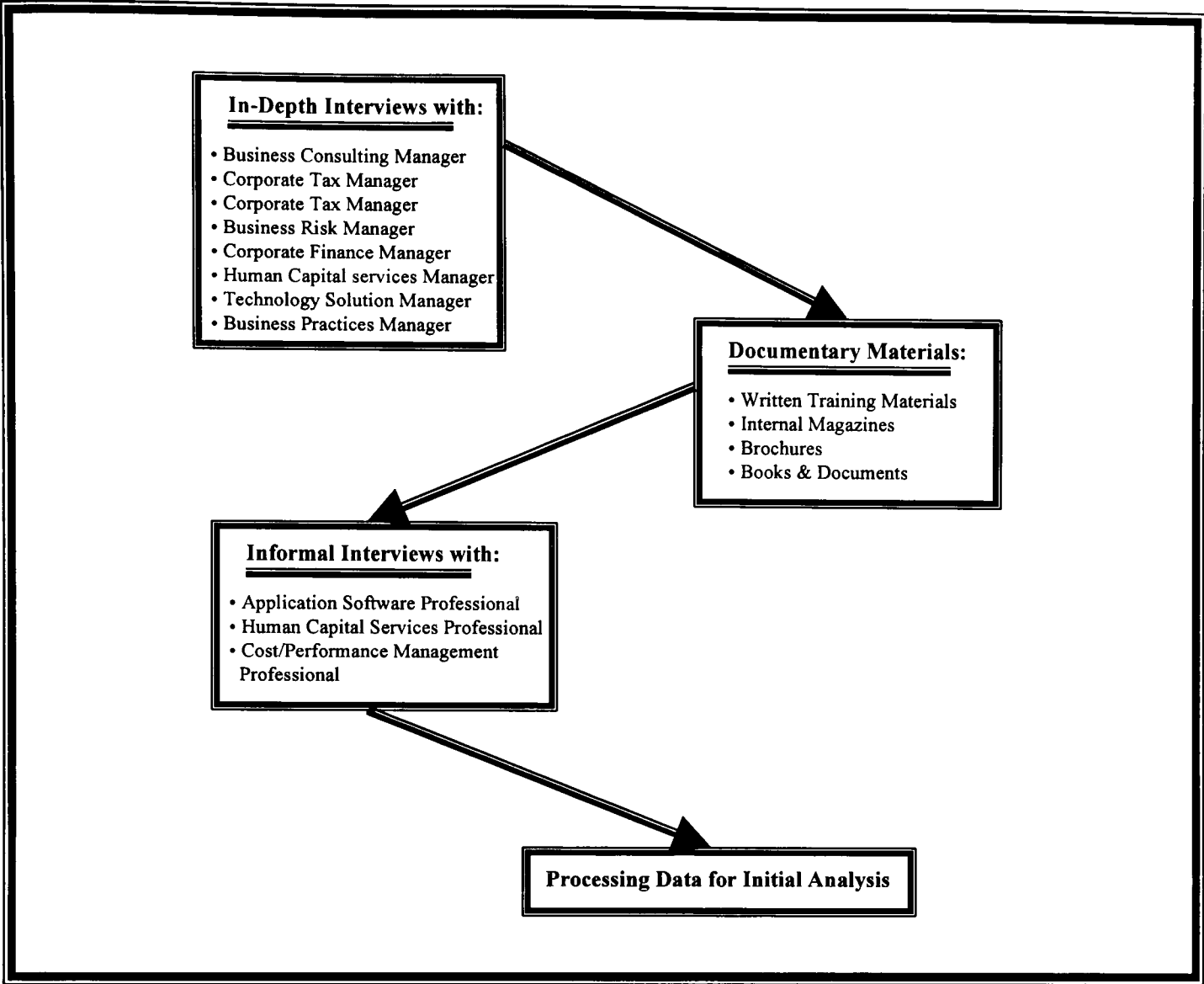
Global best practices knowledge base is constantly evolving. The breadth and content of that knowledge, and even its applications, is growing at an ever-faster rate. Our key premise continues to be that knowledge and applying creative insight and best practice thinking is an important step toward the ideal of knowledge sharing and organisational learning and a gateway to maintain sustainable competitive advantage. (Business Consulting Manager, company B)

5.1 Background.

Company (B) was founded in 1913. Historically, company (B) provided solid business counsel long before it was considered common practice in the consulting world. Company (B) started with numbers. And then grew to focus on the reasons behind them. Today, company (B) is a global, multidisciplinary professional services organisation that provides clients, large and small, all over the world, a set of integrated services. With more \$ billion in revenues and 61,000 employees, company (B) serves clients in 382 locations and 81 countries. The company serves its worldwide clients through a unique organisational structure, common methods, and shared values, wherever they are located, as one firm.

Company (B) works under the vision of “one firm structure” to deliver the best service for each of its clients then and now from Chicago to Milan to London to Tokyo. Company (B) delivers a portfolio of global professional services. This portfolio of services can be classified into four main groups. *First*, the assurance and business advisory services that provide clients with objective assurance in financial reporting and help management understand and manage business risks. *Second*, business consulting services, which help clients to identify, to develop, and to implement business process and organisational improvements including critical components such as benchmarking and quality management. *Third*, global corporate finance services that offer a wide range of finance advice to different clients. *Fourth*, tax, legal and business advisory services, which support clients worldwide to solve tax and legal problems. Figure 5.1 below presents case study (B) planning process.

Figure 5.1: Case Study (B) Planning process.



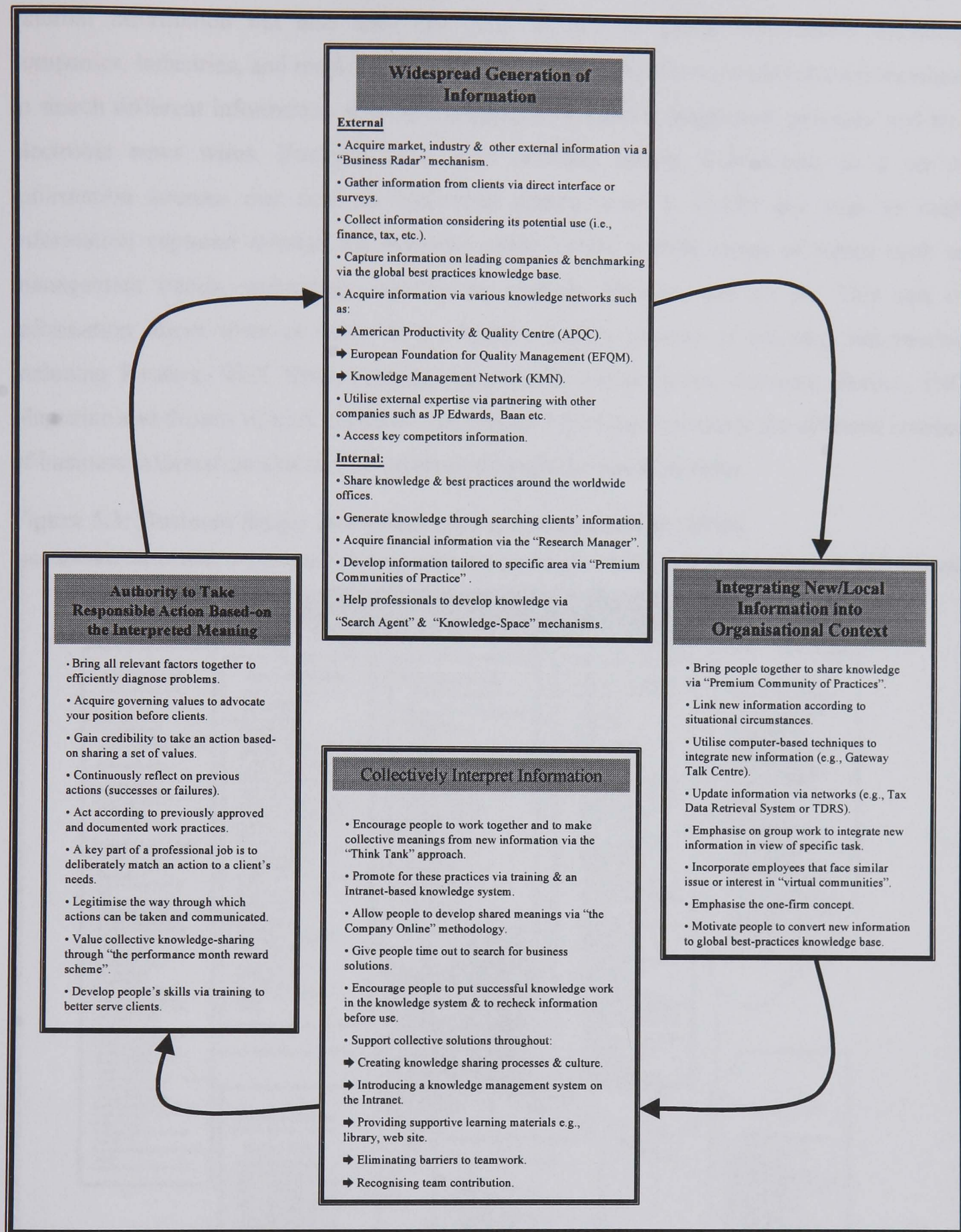
5.2 The Basic Steps of the Organisational Learning Cycle: Company (B).

Company (B) adopts a management style and strategic vision that strengthens organisational members not only to improve their everyday work operations but also to excel. This is quite obvious in the various initiatives that are incorporated in its business strategy. These initiatives were found in the company guidebook. These initiatives include becoming the world's best, giving organisational members the freedom to act, developing employees to their full potential, maintaining a strong financial base, finding the most cost efficient solutions, becoming the partner of choice around the world, and facing the future with confidence and integrity. A business consulting manager explains that the company has also put into effect a number of work values that operationalise these initiatives. One work value implies that the management should lead by example- that means, the leadership should manage the business via the means of personally demonstrated values. Another key business value demonstrates the significance of good communication by which company (B) creates an open and honest culture for employees' involvement. Teamworking is another work value that the company mostly exploits to encourage organisational members to work

together and to break down professional barriers. Managing and developing potential is also recognised as a key value to the business growth. Such value sets out to establish career management and succession planning for all, and also, to strengthen the state of the art recruitment and training process.

Rewarding performance is also perceived as another core value that the management always practises to maintain business success. Encouraging learning and innovation are also viewed as two key business values that the management promotes to create an internal environment in which best practices, knowledge, and ideas are widely shared. Empowering staff (where the company gives its members the ability and authority to achieve results) is also seen as an essential value that the management applies to improve business operations. Overall, the reading of case study (B) suggests that the company employs various methods to acquire internal and external information. Company (B) also implements a variety of techniques to enhance the integration of new information into the entire work context. The company has also put into practice a set of processes that allow organisational members to make collective meanings from new information. Company (B) has also established a work methodology that reinforces organisational members to act based on shared meanings. Figure 5.2 below synthesises the basic steps of the organisational learning cycle of company (B). In the following sub sections, the different elements that frame this leaning cycle will be discussed.

Figure 5.2: Elements in Company (B) Organisational Learning Cycle.



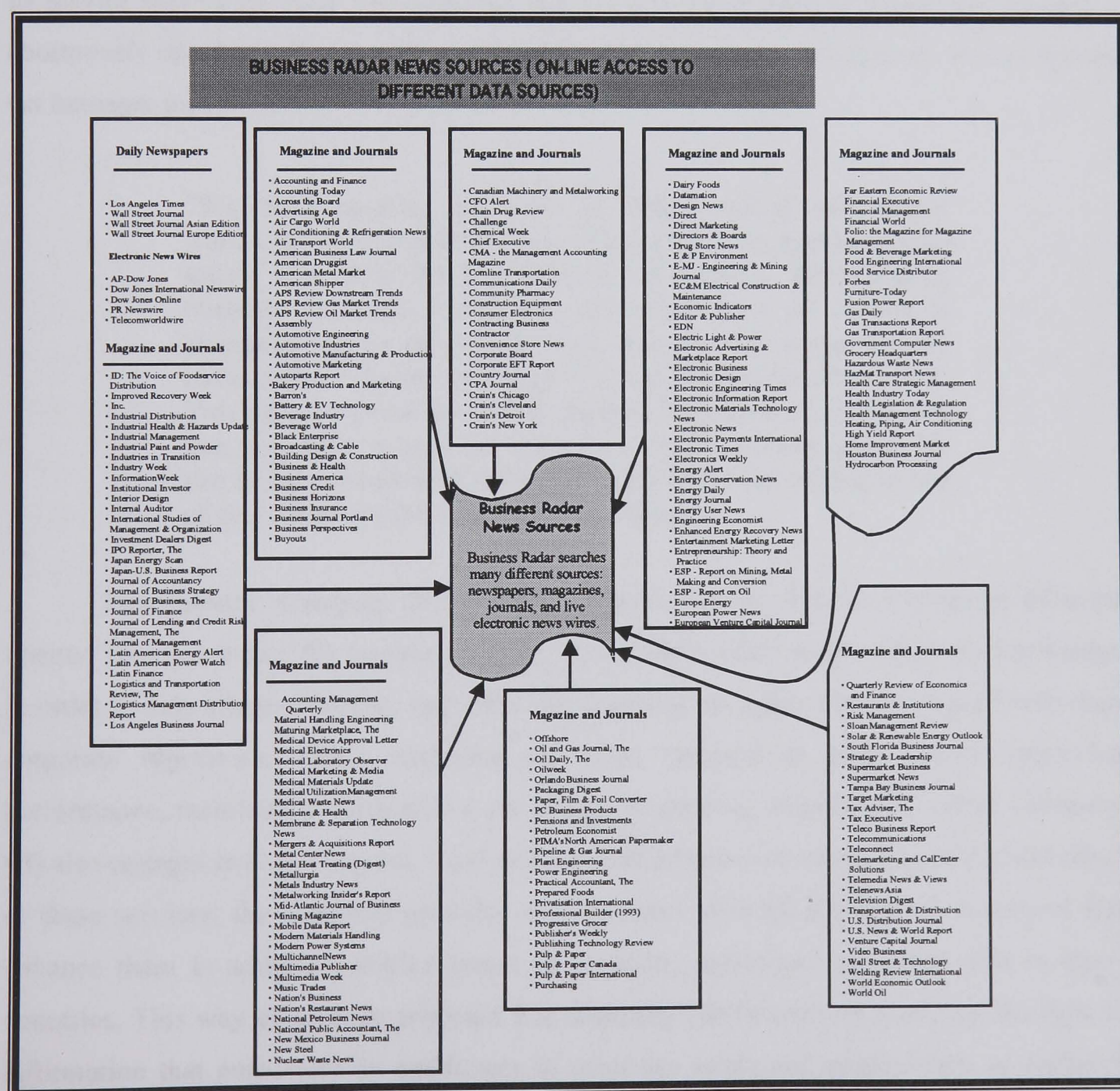
5.2.1 The Widespread Generation of New Information.

◆ Gathering external information.

Company (B) has established an organisational mechanism called "Business Radar". Business radar provides both organisational members and clients with an online access to multiple external information sources. Business radar helps organisational members to capture updated information about industry's trends, market information, and other news. By

access the business radar, not only can organisational members track down a variety of external information but also they can keep an eye on global information including companies, industries, and markets. Business radar primarily allows organisational members to search different information sources including newspapers, magazines, journals, and live electronic news wires. Business radar also provides clients with access to a set of information sources that cost an individual person over \$ 10,000 per year to read. Information captured through the business radar covers a wide range of topics such as management trends, technology, workforce, markets, finance, and so on. This sort of information draws from an array of the highest quality sources of business information including Reuters, Wall Street Journal, Dow Jones online News, Barron's, Forbes, INC Magazine and dozens of trade publications. Figure 5.3 below represents the different sources of business information that can be captured through the business radar.

Figure 5.3: Business Radar News Sources (in-house material, 1999).



Company (B) also gathers information from its clients directly. The management strongly views that the effective use of clients' information can lead to higher retention and profits. This sort of information helps organisational members to discover efficient and unexpected patterns hidden in clients' databases. Organisational members are always encouraged to analyse clients' information through using various techniques including complex algorithms, predictive modelling, database segmentation, link analysis, and deviation detection. Their work is further extended to help clients in transforming this information into knowledge and also, into actions and profits. That means, the existing work methodology not only reinforces organisational members to share valuable knowledge with clients but also allows them to work together with those clients to achieve visible improvements in performance. This, in turn, helps company (B) to increase its profits and to maintain a closer relationship with its clients. Clients' information helps company (B) to produce and to deliver a unique portfolio of services to them. Company (B) always designs its service mix based upon the changing needs of its clients. The feedback information is enormously important for the efficient management of that type of business. As a corporate tax manager puts it:

"We had a meeting last night on understanding what clients want and we're constantly sort of sending them questionnaires asking what it is that they look for in advisers. We're getting constant feedback to try and understand how the market is changing. So we can change very quickly with it because we have to get to know what sort of things are clients demanding. You need to know the actual market. You have to make sure that you know where the market is coming to turn down. It's just being constantly at the market face and to be talking to our clients and that's the most important thing".

For instance, company (B) provides global corporate finance services to different clients. To achieve this, the company acquires and further, analyses the industry's knowledge in order to help clients conceive and carry out financial strategies that are aligned with their corporate objectives. These strategies are often targeted to help clients improving performance, maintaining competitive advantage, or creating shareholders value. Company (B) also engages in producing tax, legal and business advisory services. To get the best effect of these services, the company provides its employees with all information resources that enhance them to address complex issues of taxation, regulation, and expansion in many countries. This way of practice proposes that company (B) focuses on acquiring the type of information that empowers its employees to meet the needs and expectations of different clients worldwide. A human capital service manager describes that the effective diffusion of

new information via the company's one-firm global structure supports the firm to deliver measurable value to geographically diverse businesses throughout the world.

Company (B) has recently established an organisational technique called "global best practices knowledge base". This knowledge base primarily helps organisational members to acquire valuable information about leading international companies' best practices. The global best practices knowledge base was developed with the help of the International Benchmarking Clearinghouse in Houston, Texas. It represents a kind of Standard Classification Code (or SCC) of best practices around the world. This knowledge base contains thirty thousand pages of case materials in all aspects of business, and costs over \$ 30 million to develop (in-house documents, 1998). A corporate tax manager explains that this knowledge base is the largest process-oriented database of management practices in the world. Sharing this sort of knowledge across the many locations of company (B) creates great values, not only for clients but also for stakeholders and, most important, employees themselves. A business practices manager explains that the competitive edge of individuals, enterprises, and even nations has increasingly become dependent on the ability to apply and to leverage knowledge in the way that yields continuous improvements.

Company (B) has also built effective connections with a number of key knowledge management networks including the American Productivity and Quality Centre (APQC), the European Foundation for Quality Management (EFQM), and the Knowledge Management Network (KMN). These connections enable the company to update information about knowledge strategies and approaches based upon leading knowledge management practitioners all over the world. Company (B) also exaggerates the search to capture information on its key competitors including KPMG, Ernst and Young, Deloitte and Touché, and Price Water House Coopers. The acquisition of this sort of information helps the company to grasp the potential trends and changes of the industry. Company (B) has also put into practice something called "CEO Hotline Information Service" that provides clients enrolled with the latest technical information. To strengthen its information capability, company (B) has signed up a set of strategic partnering with a number of different companies. For example, the business consulting alliances incorporated association with JD Edwards enterprise software, Lawson software, Baan, People Soft, ORACLE, SAP, and Microsoft. These alliances have enabled company (B) to establish the information basis for a number of services that benefit from the experience of these affiliate companies. The above discussion proposes that company (B) relies on multiple sources to acquire external information. These multiple sources of information strengthen the whole company to work efficiently and to improve its performance. As a business risk manager puts it:

"What I would say really is that it gave me personally a feeling of extreme comfort to have projects- whatever clients, whatever industry sector. Knowing I could go to this stuff and at least from a couple of hours searching get some pointers that would start me off in the right direction".

♦ **Acquiring internal information.**

Company's (B) work methodology values generating internal knowledge. Internal knowledge that provides the basis for excellent improvements in management performance, in business processes, in operations, and in information technology. It is the sort of knowledge, which sets out to maximise the benefits and profits of both the company and its existing clients. This knowledge primarily comes from three sources: experience, education, and research. Company (B) utilises all the resources to provide its clients all over the world with a portfolio of integrated services. Because those clients have high expectations from the company as a professional firm, company (B) always provides them with unique global services, whatever services they need and wherever they demand them. This means, leaping geographic and administrative boundaries that can impede quality. The nature of company (B) main services enables it to centrally engage in a responsive and uniform way to help clients worldwide. The ability of sharing knowledge and best practices around the world constitutes a central mechanism that company (B) adopts to successfully implement its multinational initiatives.

Company (B) always strengthens its employees to search clients' databases in order to generate new ideas and meanings from them. This way of practice allows the company to become more productive and also, to get closer to these clients. For instance, company (B) has recently established a new management category entitled a "knowledge manager". This manager often acts as a catalyst or librarian not only for organising the use of internal knowledge but also for meeting clients' information needs. Besides, company (B) has recently organised the use of an organisational knowledge base called "Research Manager". The research manager includes all accounting standards and financial reporting standards, companies' acts, and other sorts of financial information. The research manager has supplied both professionals and clients with the latest financial information and also, with all explanations or comments made particularly for them. As a corporate finance manager puts it:

"So it's not just a matter of reporting reference material, it's having on top of the reference material current commentary about it. And then we can apply it either by selling it directly to clients or by making it available to clients when they ask or clearly by using it ourselves and discussing it with clients".

Company (B) has also put into action a new technique called “Premium Communities of Practice”. These premium communities encompass members working in various business areas such as finance, general counsel, healthcare, hospitality, and internal audit. Members of a specific premium community of practice are often encouraged to generate and to share information that is tailored to a particular industry or business function. They are also allowed to access core information sources including business radar, hot issues, global best practices, online broadcasts, and discussions groups. They are responsible for developing and sharing information that enhances the everyday business operations. Company (B) has also put into practice an online Intranet system that was designed to generate new information and to diffuse it out into the whole organisation.

Company (B) hires employees from different disciplines. It employs specialists actuaries, lawyers, tax professionals, accountants and human capital consultants. Those employees bring together all of these skills in their everyday work practices. They have different backgrounds and degrees, some have had jobs before and some come straight from university. They all work together to deliver different services to clients. Company (B) motivates them to attend a number of training sessions that deal with career long professional education. This sort of personal development supports them to better serve clients and further, to build up effective relationships with other members in the organisation. During these training sessions, the trainers usually provide tools, ideas, frameworks and feedback to help participants see themselves, their organisation and their competitive environment in a different light. This, in turn, creates the social environment in which new information can be generated. Company (B) also provides its employees with a comprehensive training package including external courses and paid study leave. For instance, the company encourages its employees to get external qualifications such as ATT or Association of Tax Technicians, MSc in human resource, and even more a fully funded MBA in various areas of study.

♦ **Widespread generation of new information.**

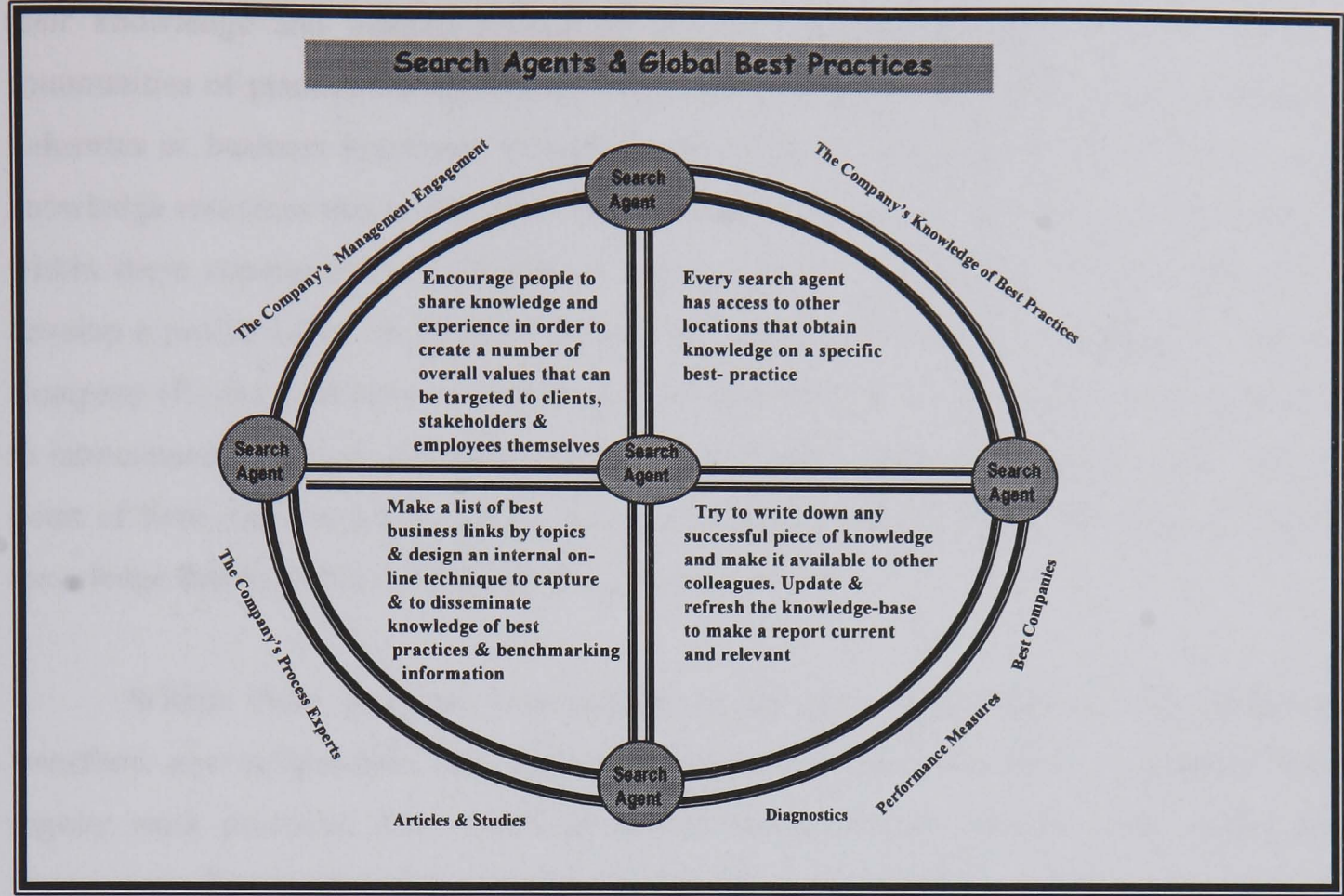
Company (B) spreads out new information into the entire organisation to help organisational members to meet clients’ changing needs. Once a central issue or a client’s problem is identified, organisational members then search for relevant information that enables them to work out such an issue or to resolve this problem. Company (B) has put into practice a number of organisational means that broaden organisational members’ capacity to disseminate and to utilise information. For instance, company (B) currently implements a technique entitled a “search agent”. A search agent helps organisational members to exchange information throughout the entire group. This technique relies on a decentralised

knowledge sharing methodology that connects the different geographical locations of the entire organisation together.

The search agent helps organisational members to utilise a knowledge-space Intranet that involves all the different aspects of the global best-practices knowledge base. This Intranet serves as an internal online information system designed to spread out organisational knowledge of best practices and benchmarking information. Within the context of a search agent, organisational members acquire information that covers different aspects including the company best practices, best companies, performance measures, diagnostics, articles and studies, and the company process experts and engagement experiences. A technology solution manager explains that search agents are tailored to serve specific information needs and that search agents work as a sort of yellow pages indexing routine whereby an employee can find complete information about a specific topic. Figure 5.4 below represents the different aspects of the search agent methodology. A search agent methodology helps organisational members to transform piles of information into working knowledge. As a business consulting manager puts it:

“ There are a number of search agents which you could go off and send for specific pieces of information linked through various external news feeds like sort of ‘PR Newswire’ and these sort of things which again you could sort of tailor to your needs. So there was a tailorable flow of information based on what I wanted to know about. So for instance, if I wanted to know everything about a specific topic in the pharmaceutical industry. I had that stuff ferreted out to me by a number of sort of search agents and knowledge exchange. So it becomes an essential part of our job.... I’ve a very simplistic view of the differences between information and knowledge. Data would be to me 10 degrees. Information would be the weather is 10 degrees outside and knowledge would be well I’d better go and wear a coat then because that’s quite cold. And there’s the same of that in the knowledge exchange”

Figure 5.4: The Search Agent Methodology.



Company (B) has also developed a number of communication tools that enable organisational members to widely share organisational knowledge. These communication media incorporate team meetings, internal conferences, Intranet and Internet, workshops, training and qualifications courses, call centres using Internet-based technology, and peers joint projects. Company (B) supports organisational members to discover patterns and ideas hidden in its organisational knowledge base. These achievements help the organisation to better serve clients and to generate healthier profits. Company (B) also provides organisational members with an online access to search the knowledge base in order to update their knowledge. By updating their knowledge, organisational members can be better positioned to break down conventional thinking and to excel. Company (B) also hires a number of information specialists who are responsible for disseminating and organising the utilisation of knowledge. Those specialists serve under a number of titles that include information officers, technology solution consultants, and knowledge librarians. Not only those specialists help the organisation to efficiently share knowledge but also they tailor this knowledge to organisational members' needs.

5.2.2 Integrating New Information into the Organisational Context.

◆ Premium communities of practice.

The first technique that company (B) utilises to integrate new information into the organisational context is that of premium communities of practice. A premium community of

practice represents a work methodology that brings a group of members together to share their knowledge and insights around an issue. Company (B) has developed different communities of practice that have deep content and resources and are tailored to particular industries or business functions. Individuals inside these communities have access to core knowledge resources that enable them to deliver efficient services into clients. Each member within these communities has access to a wide variety of knowledge sources and has to develop a profile based on his job function, an industry type, and a geographical location. Company (B) has to customise a homepage for each member within these communities and to interconnect him with different members in something called a 'group network'. At any point of time, each member within these communities can access all relevant and update knowledge that helps him to improve his job performance.

Within these premium communities of practice, individuals are encouraged to transform new information into collective perspectives that help them to improve their regular work practices. They often share information around different work stories and experiences. This information makes them more open to adopt new solutions and ideas. A functional expert that behaves as an internal consultant and assists with information transfer often guides the premium community team. Each team is also provided with guidelines on what constitute a best practice in a particular area. Team members learn to deal with an issue based on sharing knowledge and understanding of situational circumstances surround that issue. The continuous practice of generating and exchanging information helps a community of practice's team to diagnose problems and to follow an appropriate sequence to handle these problems. The implementation of a premium community of practice mechanism has generated some advantages to the business. *First*, the premium community of practice allows professionals to draw out rational solutions. *Second*, the premium community of practice enables professionals to understand the cause and affect of what is going on and also, to give meanings to words, ideas, and actions. *Third*, the premium community of practice incorporates sharing of best practices throughout the entire organisation. As a business practice manager puts it:

"You can find potential new business opportunities by using the knowledge bases that are there. But then what's much more powerful is that you should be able to find good examples of the kinds of work that one can do for particular kinds of clients or companies in particular industries. So if somebody has done a fantastic piece of work in Sydney Australia and I'm doing something for a company that's not too dissimilar, then it's already done. I don't have to reinvent the wheel. So that a very good way of supporting, actually digging out new opportunities and being able to give them something".

◆ Networking.

Company (B) also utilises a number of information technology-based techniques to integrate new information into the overall work context. The company, for instance, integrates information that comes from different geographical locations into its organisational work context via a voice messaging system or what is called “Gateway Talk Centre”. The gateway talk centre was created specially for company (B). This technique helps professionals to communicate, to share knowledge, and to store messages throughout the whole organisation. An existing information technology also allows organisational members to use multimedia applications including combination of video conferencing, mutual access to databases for storage and processing information, and shared document processing tools that permit joint work in a report in a real time. These computer-based forms of communication are increasingly employed in company’s (B) daily business activities. To support such orientation, company (B) provides organisational members with a number of training sessions that enable them to build excellent IT knowledge skills. These training sessions include Chit-Chat Top Technology Opportunities, Internet Security Control, Electronic Commerce, Communication and Portable Technology course, Preparing for the Data Driven Information Age, and Computer-Aided Techniques.

An existing work methodology strengthens organisational members to update their technical knowledge via networks. In that way, company (B) seeks to provide organisational members with the latest information and hence, to help them to meet market changes. Company (B) appoints a number of employees, their main task is to renew an existing knowledge base. To accomplish this, not only those employees have to identify the information needs of various business areas in the organisation but also to deal with new issues and opportunities. The role of those employees is further expanded to incorporate an integration of internal information with other external information and insights. Those employees are also encouraged to integrate new information with other information that can be captured from books, articles, web sites, and a list of best-practices and other sources. These practices help organisational members to acquire a level of knowledge that enables them to offer clients with efficient insights on various business topics. As a corporate tax manager puts it:

“We've a whole department, which is called TDRS or Tax Data Retrieval System. And what it does is that- they perhaps every week will scan all the data on the databases in the files in our system for any new document and they will review them and if there's anything in there which is sort of new information or something that's quite technical. It gets put it into a central database and so what you can do, is to update your technical

knowledge. We've got a huge database now. So it becomes an essential part of our job”.

An efficient use of information technology increasingly strengthens the management to simplify key organisational activities including responding to service requests, creating the strategic plan, searching for information, verifying data, and interacting with other organisational systems. Members and teams in different parts of the organisation already utilise a variety of information technology tools. A technology solution manager explains that the key thing is to make these tools available to everybody throughout the organisation. He continues to describe that information-based practices lead to superior performance. He adds that the company pursues major technological change, so that it will never face a threatening situation. Working with case study (B) data, it is obvious that an information technology is increasingly utilised to interconnect the entire organisation with its worldwide offices. As an example, company (B) has recently established a global best practices knowledge base that incorporates 15000 Lotus Notes databases. Employees can log into this knowledge base to acquire knowledge at any time and from anywhere in the world. The global best practices knowledge base creates the best value of the company's unique repository of process improvement insights. It covers key business processes that are common to all companies, regardless of an industry. It includes a set of knowledge projects that are listed according to subjects. Figure 5.5 below lists the topics of best practices.

Figure 5.5: A List of Best Business Links by Topics (in-house material, 1998).



The global best practice knowledge base helps the management to integrate new information into the overall work context. The global best practices knowledge base has PC-based information integration. Company (B) constantly widens and updates this knowledge base to ensure that each employee is supplied with the latest information. A corporate tax manager describes that information is updated on a commercial real time basis. He goes on to explain that if something changed it would automatically updated. He adds that the company appoints a number of people that devote considerable time and commitment to update it or supply this knowledge into different users.

◆ **Group work.**

Company (B) increasingly employs group work to integrate employees' collective sense and shared experience in relation to a particular task that they engage in. This integration depends on the way through which those employees view an immediate situation during a direct interaction. A collective context, in which this integration takes place, is widely influenced by a common language and operational terms that those employees utilise and also, by a number of skills that they apply to send and to receive new information. Individuals often develop their knowledge and skills through a regular interaction and by creating interpersonal relationships with significant others in the organisation. These relationships are not restricted by loyalty to a chain of command. That means, a large part of a knowledge sharing process often takes place through group activities that are not limited to verbal or written instructions. This kind of integration has been an essential basis for developing the global best practices knowledge base, which links the entire organisation together as one-firm structure. Company (B) has also established something called "Knowledge Management Competency Centre" or KMCC. The KMCC mechanism enhances organisational members to work together in virtual communities. Each of these communities encompasses members that face similar issues and have similar interests. Those members share knowledge in a cooperative manner to achieve a variety of group activities.

5.2.3 Collectively Interpreting the Information.

◆ **Think-tanks.**

Company (B) has put into practice a variety of techniques that encourage organisational members to make collective interpretations from new information. As an example, the company has put into action an organisational mechanism called "Think Tank". A 'think tank' represents a group of employees that usually get together at regular time basis (i.e., every month or two months) to share knowledge and insights on various business issues. Members of a particular 'think tank' usually sit together and go through searching certain ideas that might be raised or thought about by a person. Those members may also

look at an issue that is being raised by a client. They might spend half or even one day just for brainstorming, going through ideas, trying things out, and searching different information sources. By the end of the day, those members have to find a solution, which reflects their collective interpretation to a particular information.

Members of a think tank are often selected on the basis of particular business areas or functions. The think tank mechanism is almost applied in all worldwide offices of company (B). Making meanings from information is one significant element of the think tank regular practices. Members of a think tank usually get together to draw collective meanings from new information. Company (B) supports this way of practice by providing organisational members with a complete Intranet-based knowledge management system and with an excellent training package. The think tank mechanism is also strengthened by a decentralised culture that company (B) adopts. This culture enables organisational members to see new business tools as the means to do the same job they had been doing, the same way, only a little better. The main thing is to change the way people used to do things. Reading case study (B) data suggests that the success of the think tank mechanism results from two main things. *First*, a selection of members of a particular think tank is an important element. *Second*, backing a think tank's members by relevant knowledge is another significant factor. As a business consulting manager puts it:

"There is no way that our oil, gas people, or our insurance people or our telecom people, will know enough unless they are first of all allocate people in the industry but secondly they are properly supported by a knowledge base that they can continually make reference to. And with the sorts of knowledge base that we've got, we're going to be actually ahead of those in the industry in some cases".

◆ **The company online.**

Company (B) has developed another organisational mechanism entitled "the company online". The company online represents an electronic notice board whereby each employee can write down a notice asking for help regarding a particular issue or an emerging problem. Other employees can get back inundating him with answers. These answers usually incorporate suggestions provided by employees that have done similar work before. They might involve methods or techniques that those employees have employed to work out specific problems. These answers might also encompass offers for help. The company online enables the entire organisation to perform in a better manner. Not only this mechanism is supported by an existing organisational culture but also it is strengthened by current group work initiatives.

A human capital service manager explains that the mission of the entire company is targeted to help clients achieve measurable performance improvements and positive changes. He continues to describe that the company always updates its structure, its processes, its systems and its people to achieve such mission. He adds that the current culture intends to build a clearer view of the whole picture, to realise effective ways to disseminate collective knowledge, and to deliver solutions that are integrated across the entire organisation. The success of this way of practice has relied not only on individuals' ability to share knowledge but also on their interest to put new knowledge in the organisational knowledge base. In view of that, company (B) motivates organisational members to spend some time searching different information sources to generate new business ideas or opportunities. As a business risk manager puts it:

“Well if somebody has an example, does a piece of work for a particular client with a particular attribute, whether it's an industry type attribute or profile type attribute, whether there's an owner managed business or large PLC or large multinational type business. If you identify that opportunity that is relevant to a particular type of client. By promoting that knowledge to our knowledge network it can be used by everybody 'say oh yes' I can see that I know that client in a similar situation”.

Once an employee reaches to a successful piece of knowledge, then he has to put it in the global knowledge base. Other colleagues within the organisation can, therefore, utilise it. Employees are well trained to examine an appropriateness of new knowledge to a specific business task. That means, information obtained through informal channels should be rechecked for validity before using it in making a decision. Company (B) has established a number of criteria that organisational members should rely on to decide whether a specific piece of knowledge complies with a current project or not. This way of practice becomes an essential part of organisational members' daily work activities. An employee should revise and further, update a piece of knowledge before processing it into a new business operation. Organisational members access various information sources including books, articles, web sites, a list of best-practices companies, and other sources to offer clients with useful insights or a better business advice. A corporate tax manager explains that clients often come to the company because its proactive approach provides them with effective and efficient services. He goes on to identify that the company always achieves this by encouraging its employees to think outside the normal framework of ideas.

5.2.4 Authority to Take Responsible Action based on Interpreted Meanings.

◆ Shared values.

To take an authoritative action, organisational members should better diagnose a problem at hand and also, they should consider all factors surround that problem. Informants believe that individuals' participation in diagnosing a specific problem plays a significant role of what an action accommodates. Company (B) places much value on creating a number of skills and competencies that strengthen organisational members to learn how to deal with an emerging issue. These skills and competencies reinforce individuals to acquire governing values that help them to advocate their positions ahead of clients. This means, the collective interpretation of a specific situation empowers individuals not only to take an action based upon sharing a set of operational values but also to meet clients' expectations. Individuals are enhanced to connect different variables together and to create a momentum that reinforces their responsibility to take an action before clients. Individuals are well positioned to draw from a wide range of existing ideas when they intend to solve clients' problems. Sharing knowledge and best practices around the world constitute core practices that professionals employ to implement a number of multinational business initiatives.

This attitude is supported by a number of criteria that company (B) pursues to recruit its people. These criteria place great emphasis on how new recruits will do the job, how they will cope with others, and how they will fit with the organisation. In the early days of joining the company, new employees should learn about an existing work methodology that the company utilises to deliver its multiple services. A potential contribution of each of them to the company brand image has to be made obvious. A human capital service manager explains that the company always prepares professionals to use their brains and to think for themselves. He continues to clarify that because professionals can think for themselves they will be driven to providing the best possible service for clients and for finding new solutions for them. Company (B) facilitates this way of practice by providing organisational members with the best and most efficient knowledge system. It also motivates them to participate in creating such a system through the documentation of their best practices and essential institutional knowledge from top senior staff down to the payroll people. These practices, in turn, help the organisation to constantly reinvent itself. As a business consulting manager puts it:

“We've reinvented ourselves so many times and always in doing- the firm always looking at itself saying 'well there must be a better way'. We always do that. It makes us quite different from other competitors. The flexibility is there”.

◆ **Reflect on past actions.**

Company (B) always dedicates organisational members time out to reflect on previous actions and situations. Managers claim that reflection on past situations is as important as taking actions. They view that a regular reflection on previous actions enables them to improve performance because it breaks down potential mistakes that can arise from taking an action. An internal work environment in which information spreads quickly to various users significantly supports this way of practice. Once a problem is identified, a stream of information should pass on to the person that faces the problem. This stream of information often includes two types of information: (1) positive information that often represents information on successful projects and promising areas of business and (2) negative information, which often implies information on previous failures and mistakes. By reflecting on past situations, company (B) can be better placed to steer resources allocation into more productive activities and business areas. Reflection on past actions also encourages organisational members to engage in collective activities. Because of its importance, reflection is widely perceived as a core activity for survival. Individuals learn to change and to develop their conceptual and technical skills through reflection. This way of practice, in turn, encourages individuals to work well and to feel part of the business. This way of practice also creates a great accountability for employees' daily actions because it rests on matching an overall responsibility to an "issue and context" approach.

◆ **The performance month reward scheme.**

Working through case study (B) data, it becomes clear that members of a particular teamwork or community of practice influence what other members do and ultimately the decisions that they may make. For instance, a professional is delegated to act according to knowledge and practices that are generated at his work environment and are approved and latter socialised together as common meanings. His critical job is to approach an action in a way that can deliberately meet a client's business needs. That means, this professional has to ensure that a potential action will accommodate with the company's general practices and standards. In some cases, clients themselves work together with a professional to take an action or to handle a problem that they have identified together. These practices encourage employees to work together as a community of practice. Within this community of practice, actions and suggestive solutions should be taken in relation to sharing of knowledge, exchanging of stories, and collective interpretations.

In other words, a community of practice sets out to socially legitimise the way through which an action can be taken and communicated. A community of practice is also tailored to an informal structure that is not bounded by the chains of command or spoken

words of praise. Rather, professionals are encouraged to key into their collective knowledge and shared meanings to propose or to perform an action. To support this kind of behaviour, company (B) has developed a compensation plan named “ the performance month reward scheme”. The performance month reward scheme primarily values professionals’ contribution to the global knowledge base. This reward scheme is accelerated through providing employees with an easy access to a knowledge-space network in which each member can put down or utilise successful knowledge work.

◆ **Continuous training.**

Because company (B) operates in the knowledge business, it recognises that its workforce is the most valuable asset. Consequently, the company invests heavily to develop its human capital. Company (B) has a world class college recruitment program to hire the best and brightest. It invests over 6% of its gross income on training. It also provides a number of tools, technology, incentives, and accountability mechanisms that strengthen organisational members to share knowledge and best practices throughout its worldwide offices. Company (B) has established something called “career-long professional development programme” to continuously develop its workforce. Participants view that a continuing professional development helps the company to serve a variety of worldwide clients and to capture new opportunities. They claim that clients are better served when employees know enough, communicate well enough to draw on the expertise of their colleagues worldwide, and to spark solutions for clients' business challenges. Professionals come to the centre of career-long professional education to achieve two main goals: learn how to better serve clients and to build a professional network with other members in the organisation.

The centre for professional education is recognised as one of the world's premier facilities for business education and professional development. The centre for professional education provides training and education for thousands of employees each year. Managers believe that the combination of people's skills and knowledge along with the learning resources available at the centre helps the company to differentiate its services from other rivals in the world. They claim that the strong commitment to learning, the education of professionals, and the development of a network of colleagues have been cornerstones of the company heritage since the originator, a university professor, founded the firm in 1913. Managers also view that providing professionals with high quality training and learning opportunities during the early days of joining the company enable those professionals to build outstanding tacit skills. These skills strengthen professionals’ conceptual and practical

capabilities. As a result, professionals can be better placed not only to deliver high quality services to clients but also to gain their trust.

5.3 The Way in Which Company (B) Assimilates and Exploits Knowledge to Sustain and to Strengthen a Competitive Advantage, as Managers Perceive it.

This section explains the way by which company (B) assimilates and exploits collective knowledge to generate competitive outcomes. Drawing on participants' perspectives, this section mainly conceptualises the way in which managers think they employ collective knowledge to achieve competitive results. Reading of case study (B) data reveals that company (B) has put into practice a number of successful computer-based knowledge projects to derive a competitive advantage. A business consulting manager explains that the knowledge that they hold within the company does keep them ahead of their competitors and that this has been demonstrated quite a few times recently. He goes on to clarify that many of their competitors are currently short of business, they are not. He continues to describe that it is knowledge that gives them that direction and that success.

Company (B) has recently developed a global best practices knowledge base that represents enormous amounts of companies, industries, and benchmarking information. Obtaining information on global best practices provides organisational members with relevant case histories, new work methodologies, new ways of doing things, and job aids. The global best practices knowledge base helps organisational members worldwide to develop their technical skills, to operate much faster, to solve complex problems, to understand their work practices from a worldwide perspective, and to provide consistent results and values added into clients. A corporate finance manager explains that because the company maintains a huge range of knowledge, employees can learn how to do something in the best possible way. He continues to clarify that employees process such knowledge in the right way to do things better and faster. As a technology solution manager puts it:

"Internal knowledge allows us to generate new services faster than competitors. I'd be looking in the discussion databases for ideas and even flicking through the knowledge exchange for people who I need to contact. So from my point of view I couldn't have done my job as fast without it. Extrapolating that to the entire organisation, if everybody else felt that way, that would allow us to generate our services faster than competitors. It would definitely allow us as an organisation to do stuff quicker".

Working with case study (B) data proposes that organisational members utilise different processes to create a set of technical, general, and market knowledge. Organisational members generate internal knowledge through utilising a number of processes including clients information-base, a company best practices knowledge base, learning workshops, a self-directed learning, learning teams, a research manager, and internal educational sessions. Organisational members acquire huge amounts of external information from multiple sources including daily newspapers and magazines, journals, electronic news wires, information of international leading companies, a competition and an industry information. Company (B) applies an internal work methodology that helps organisational members worldwide to share and to utilise common knowledge and best practices. By acquiring knowledge and by transforming it into everyday work practices, organisational members become more competent to contribute to the overall business success. As a human capital service manager puts it:

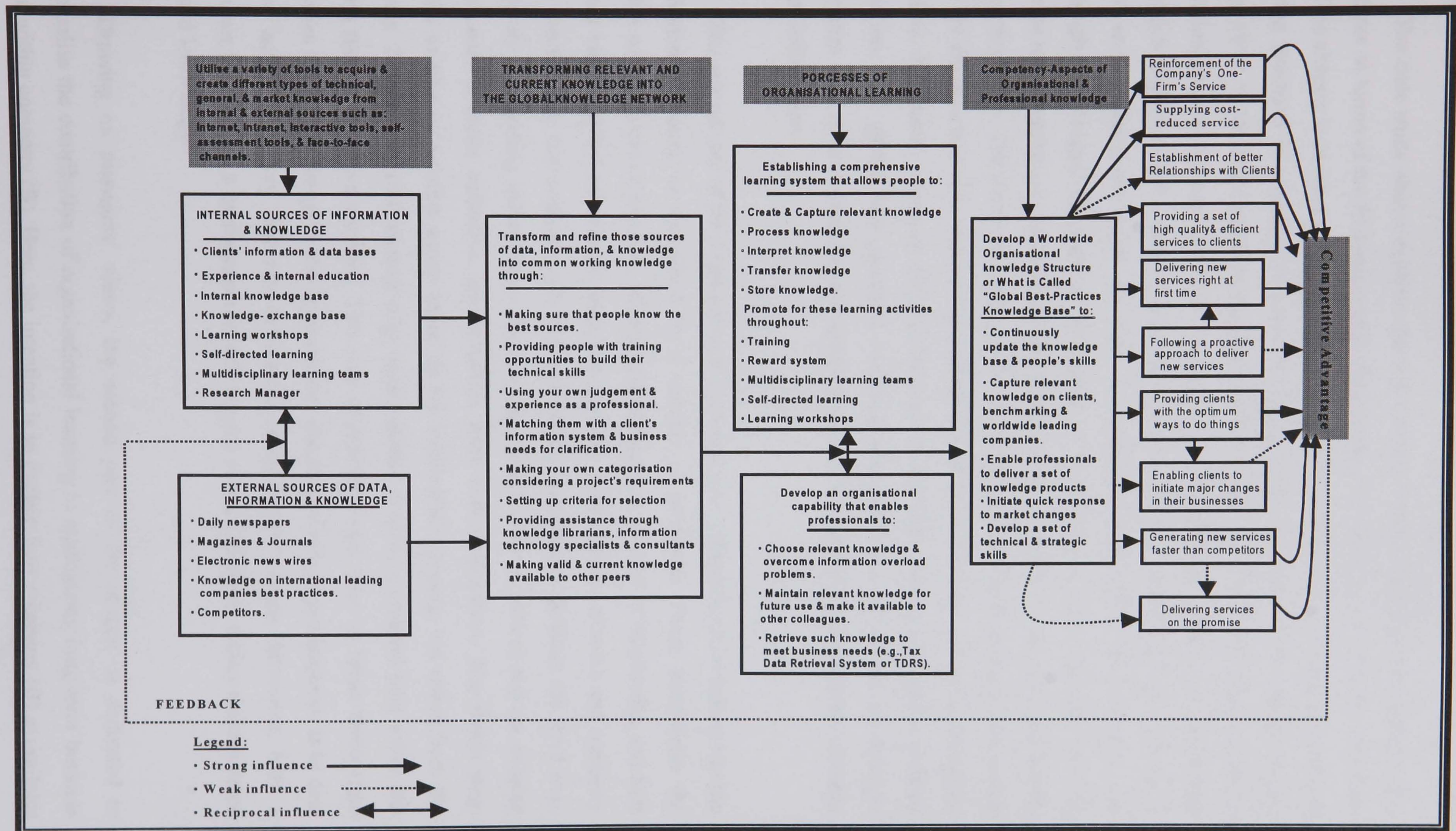
“Unless we capture knowledge and are able to use that we simply weren't going to be competitive. I think our largest and smallest clients recognise what we can offer them. We are steadily and more broadly using knowledge to distinguish us from other competitors. We're recognising that and we're increasingly investing in knowledge systems and infrastructure”.

Company (B) promotes for this way of practice through a number of mechanisms. These mechanisms include: (1) making sure that organisational members know the best sources of information, (2) providing organisational members with a number of training opportunities to develop their conceptual and practical skills, (3) encouraging organisational members to use their own judgements, (4) enabling each member to build his own category of knowledge, (5) providing organisational members with technical assistance to resolve technological problems, and (6) making sure that each member shares his experience with others in the organisation. Once organisational knowledge is transformed, each organisational member or each team of members is encouraged to capture relevant knowledge, to process it, to interpret it, to share it with other professionals all over the world, and to keep it in a an appropriate form for future use. Company (B) has also put into effect a number of organisational initiatives that helps organisational members to share and to transfer the learning best processes throughout the whole organisation. One mechanism that company (B) increasingly employs to encourage learning is a continuous training and development. Company (B) also applies a reward system, which compensates organisational members that share their knowledge or generate new business opportunities from an existing knowledge base.

Besides, company (B) creates a number of multidisciplinary learning teams in order to benefit from assimilating different knowledge vectors together. Moreover, company (B) spreads both self-directing learning and internal learning workshops to promote learning culture throughout the entire organisation. Company (B) also strengthens organisational members to retrieve and to recognise internal knowledge in a way that helps them to meet with changing business needs. These practices are successfully reflected in a global knowledge base that can be utilised by employees all over the world. By exploiting a global knowledge base, company (B) can be better positioned to achieve some competitive outcomes. These outcomes involve: (1) a reinforcement of the “one-firm concept”, (2) a provision of various services at reasonable prices, (3) an establishment of better relationships with clients, (4) a continuous development of new services (5) a distribution of these services right at first time, (6) a practice of a proactive approach to deliver these services to clients, (7) providing clients with the best ways to do things, (8) strengthening those clients to carry out major changes in business operations, (9) adding new value to clients, (10) generating new services faster, and (11) delivering services on the promise.

Clients thus perceive company (B) as a multidisciplinary firm that always helps them to improve their performance. This conclusion is recently supported by a study released by Emerson Research Company (in-house documents, 1999). Emerson has run an independent industry analysis focused on the big five companies in the business. Company (B) was chosen to become the first firm to earn an overall world class rating in client satisfaction for multinational companies. A business consulting manager explains that knowledge is fundamental to the business strategy. He continues to clarify that the capability of harnessing knowledge and conveying it quickly into clients is the base for the firm’s competitive advantage. He adds that knowledge enables the firm to come up with different models of the marketplace and different core offerings than other competitors. Drawing on participants’ perspectives, figure 5.6 below represents the way by which company (B) assimilates and employs collective knowledge to strengthen a competitive advantage.

Figure 5.6: The way in which company (B) assimilates and exploits knowledge to strengthen and to sustain a competitive advantage, as its managers perceive it.



5.4 Conclusions.

The case study above explains the way through which organisational learning has taken place in terms of the four-step cycle. The chapter discussed two main parts. The first part of the chapter is devoted to examining a number of organisational learning practices that are being practised in company (B) and to placing these practices in the organisational learning cycle. In the first step of the organisational learning cycle, widespread generation of information, it can be seen that the company has placed much value on generating information from multiple sources. Internally, company (B) has made concerted efforts to involve each professional inside the firm in generating information. Professionals are increasingly encouraged not only to participate in creating new knowledge but also to determine its appropriateness to the business. Such attitude is rooted in company (B) overall work methodology. The premium communities of practice, the research manager, and search agents are among other tools that professionals utilise to create information and to recognise new ideas. Externally, company (B) has invested in multiple sources to acquire updated information. The global best practices, the business radar, and a number of strategic partnerships with other companies are widely exploited by professionals to gather valuable external information.

The second step of the organisational learning cycle, integrating information into the organisational context, is completed by a number of processes. These incorporate the premium communities of practice, information networks, a transfer of knowledge and best practices via the global knowledge base, and a group work. The think tanks and company online mechanisms that company (B) has successfully established facilitate the third step, collectively interpreting information. An existing culture plays a critical role in helping professionals to make collective interpretations from new information. The fourth step, authority to take responsible action based on the interpreted meaning, has arisen from the third step. That means, professionals who work together to solve a problem then act on the meaning they have drawn together. This way of practice helps them to break down rigid boundaries that often emerge in the organisation. The critical role of professionals is to deal with an action in a way that can deliberately meet clients' needs. Moreover, both a continuous training and a performance month reward scheme facilitate taking actions based on shared knowledge.

Drawing on managers' views, the second part of the chapter is dedicated to conceptualise the contribution of organisational learning to maintaining long-term business success within company (B). Here, the intention is to explain how company (B) assimilates

and exploits collective knowledge to generate commercial ends. The reading of case study (B) suggests that the company relies broadly on employing the latest information technology to create value from successful knowledge projects. That means, company (B) often approaches IT investment from an organisational learning perspective. Remaining “streets ahead” of the competition is driving force for learning in company (B). Collective learning helps the company not only to develop its human capital but also to better comply with clients’ needs. Collective learning assists professionals to make successful proposals and to generate new business opportunities. Collective learning strengthens an individual’s searching capability. Collective learning enables company (B) to develop supportive knowledge in various areas including recruitment, an information technology and a continual professional development. This supportive knowledge allows company (B) to develop a portfolio of integrated services that involves different business areas. A corporate tax manager pointed out that what makes them different is the idea that they come up with new ideas and how effective and how efficient these ideas are when applied to a client. He goes on to describe that that is what clients want from them these days.

CHAPTER SIX
CASE STUDY (C): COMPANY (C)
*(Promoting for learning via establishing the basis
of mutual understanding between top
management and lower operational levels)*

Chapter Six

Case Study (C): Company (C)

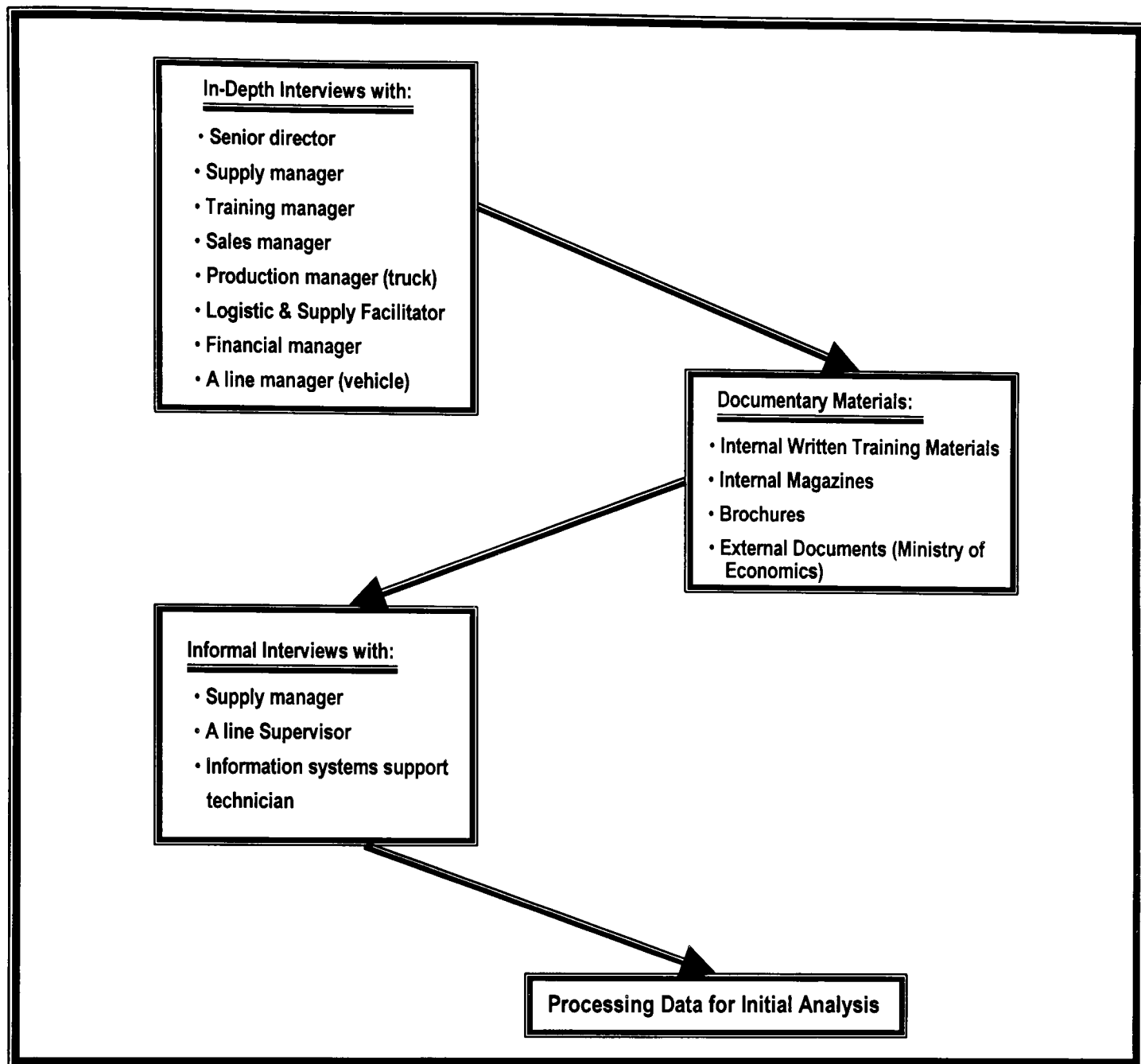
Without good, accurate, and up to date information, it is difficult to make business decisions and react appropriately to the widening world outside the company. The concept of organisational learning plays an important role in ensuring that the right information is available to management before the decision process begins (Training Manager, company C).

6.1 Background

Company (C) was established on September 17, 1981 and has become a legal entity on April 17, 1983 as a joint stock Egyptian company under the Investment Law 43 of 1974. Egyptian private nationals hold 33%, the American partner 31%, the Japanese partner 20%, and Saudi investors 16%. Company (C) was primarily capitalised at L.E. 16.8 million. The shareholders agreed in November 1984 to increase the capital to L.E. 25.2 million. Both the original and the increased capital were paid in U.S dollars. The company's main business involves importing machines and auto components from all over the world, from Japan, Germany, USA, and Italy into Egypt, and then, assembling and distributing complete autos to the domestic market. These autos can be sold through direct selling or through distributors. These autos are also supported with a number of after sales service applications.

The plant occupies an area of 15 hectares in the industrial zone of a new community called "6 October City" about 45 kilometres west of Cairo, 220 kilometres south Alexandria and 160 kilometres west of Suez Canal. A board of directors of seven members elected by shareholders manages company (C) that hires over 500 labour force. The company has a management and a technical assistance agreement with a major American Corporation. The American Corporation often provides company (C) with new technological developments in the auto-manufacturing field. Company (C) also has a similar agreement with a big Japanese Corporation. The Japanese Corporation mainly supports company (C) in the area of model selection and special engineering requirements and also, in the area of supply logistics and development of local components. With these agreements, company (C) has the full back up and expertise of multinationals, their subsidiaries, affiliates, and associated companies anywhere in the world. Figure 6.1 below introduces case study (C) planning process.

Figure 6.1: Case Study (C) Planning Process.

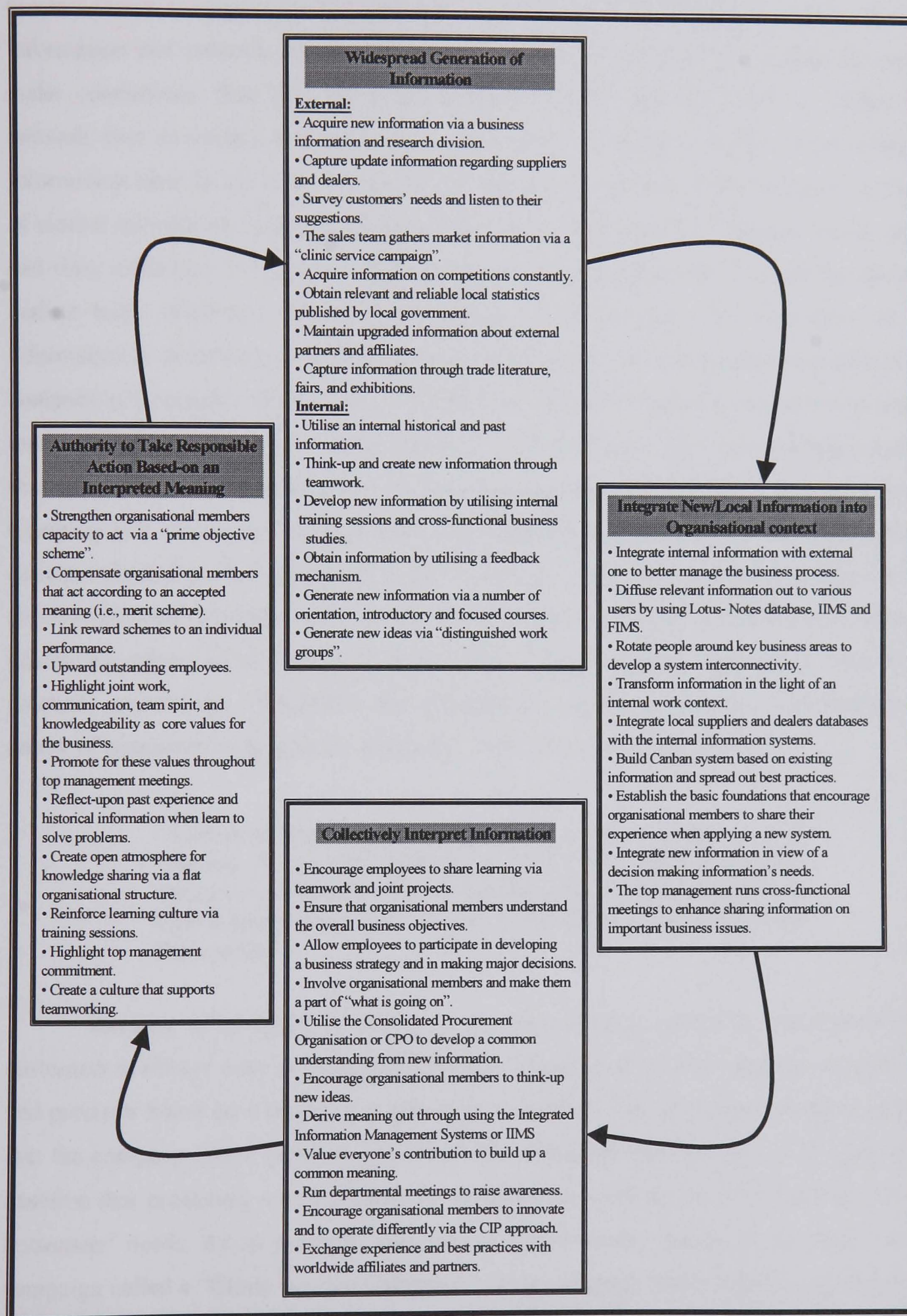


6.2 The Basic Steps of the Organisational Learning Cycle: Company (C).

This part of the chapter describes the way by which more than 500 employees along with their managers create a continual organisational learning cycle. This organisational learning cycle mainly encompasses the overall learning practices that are being carried out inside company (C). In particular, the organisational learning cycle explains the various mechanisms that the company puts into practice to capture internal and external information. The organisational learning cycle also incorporates the different techniques that company (C) implements to integrate new information into the overall organisational context. Furthermore, this organisational learning cycle highlights the current methods that the company employs to make collective interpretations from new information. Ultimately, this organisational learning cycle examines a number of processes that the company puts into effect to act on a collectively interpreted meaning. Figure 6.2 below demonstrates the basic

steps that construct the company's (C) organisational learning cycle. In the following sub sections, the basic steps that form this organisational learning cycle will be examined.

Figure 6.2: Elements in Company (C) Organisational Learning Cycle.



6.2.1 The Widespread Generation of Information.

♦ Gathering External Information.

Capturing relevant information from a variety of external sources is a common practice inside company (C). The company assigns a particular division (entitled a business information and research department) not only to collect external information but also to make conclusions from this information. This division has developed an information network that connected both suppliers and dealers' information bases to the company information base. In so doing, company (C) was able to obtain an online access to a variety of market information including demand estimations, customers' preferences, prices, stocks and time schedules. This sort of information is extremely important because the domestic market lacks systematic and accurate sources of information. The importance of this information is demonstrated in its substantial impact upon the strategic planning process that company (C) currently implements. The company also encourages the salesforce to capture market information through a direct interface with customers. The sales manager explains that sales people pass information on over from whenever they are in the marketplace. Company (C) carries out many surveys and extensive market research studies in order to collect information that guides its business policies. The top management often rules a monthly meeting along with other operational departments' leaders in order to analyse and to discuss the impact of new information upon the everyday business operations. This way of practice, accordingly, strengthens the management capability towards understanding the nature of customers' expectations and needs. As a sales manager puts it:

“Customer base is of course what we're anticipating and creating. So you're looking inevitably into the market and trying to understand what people are looking for, what they're also unhappy about, and so that the product you develop meets their needs.”

Because of a dynamic nature of the marketplace, gathering information from customers is always seen as an ongoing process. Company (C) often launches new services and products based on a feedback it gets from customers. The production manager explains that the company draws its plans as a result of further external information. He goes on to describe that producing a new product or adjusting an existing one should always fit with customers' needs. As an example, company (C) has recently begun an after sale services campaign called a “Clinic Service Campaign”. This campaign was a response to customers' needs in the marketplace. Throughout this campaign, customers were offered free services, parts, and valuable gifts. A considerable number of customers participated and were overwhelmed with the services rendered by the company and its authorised service dealers.

A long-run relationship with customers is increasingly perceived as a central element by which the company strengthens and maintains a competitive advantage.

The collection of external information is also extended to include information about domestic competition. By capturing information on competitors, company (C) intends to stretch its internal capacity to take on new business opportunities and ideas. Because of a local market sensitivity to price changes, the company gathers information regarding local competitors' prices on a daily basis. In this manner, the company can be better placed to rationalise its pricing policy on a regular basis. Connecting the entire company via full-computerised information systems not only facilitates this way of practice but also allows the company to react to contingencies. Company (C) has also established something called a "Product Portfolio" approach. The product portfolio approach was developed in the light of available information on global and domestic products. The company gathers this information either through access to a number of government reports or by surveying the local market. Company (C) also carries out a variety of business studies so as to make rational decisions regarding an investment in new products. A number of employees from different divisions including finance, supply, manufacturing, sales, and engineering often participate in carrying out these studies. This way of practice not only helps the company to develop new products and services but also strengthens the company's capacity to comply with changing customers' needs. Sims *et al.* (1993, p 198) described a learning organisation as an organisation that benefits from a 'flexibility in changing its work practices to meet shifts in business circumstances'. This flexibility reinforces company (C) to sustain an existing market share in the domestic marketplace.

♦ **Generating internal information.**

Company (C) strengthens organisational members to generate internal information and ideas. Organisational members are always encouraged to think up new ways of doing things and to reflect on past experience. An existing compensation scheme was designed to reward organisational members who generate new ideas or innovate better ways of doing things. Company (C) provides employees with opportunities to exploit their knowledge to contribute to organisational objectives. The management views that exploiting the experience and knowledge of employees that work in the business is an essential element to develop its capability for learning. The sales manager explains that the company does not bring a new product in unless it builds the internal knowledge and experience on that marketplace. He continues to identify that the company can not survive any other way and the core of the business is information upon which the whole company operates. Managers also look through trade web sites, magazines, and papers to collect information on what

competitors are doing, what agents are saying, and bring all that information in and process it to generate new knowledge and ideas. Company (C) maintains a huge internal knowledge base and always updates it. By making this knowledge base available, structured, and organised, organisational members often use it and learn by it. Internal information covers a wide range of subjects including basic facts about products, its development, and it is stretched into new areas of application via using information systems, new drives, new technologies, and learning about these technologies. A supply manager describes that the company depends heavily on knowledge from internal sources. He adds that managers increase their knowledge on a day to day basis by reading and discussion trying to understand what is happening. He continues to clarify that this is really dictated by what the company requires from them and they would get this knowledge possibly through self-development or possibly through partnerships with other members in the organisation.

Company (C) has developed a social atmosphere through which internal knowledge can be generated. It carries out a number of work practices in which socially created and maintained meanings can emerge. Current employees pass these meanings on to new members through verbal and non-verbal behaviours. This, in turn, creates a common basis for mutual understandings, for communication, and for effective cooperation in the entire organisation. A new employee has to orient himself with a nature of the overall business process within the company. The company often runs something called “an orientation course”. This course is designed for all new employees that are going to join the company workforce. It is targeted to provide new recruits from the accounting, supply and engineering departments with a background on the company, its establishment, the management philosophy, the company policy and also, an idea about the manufacturing department policy, the company’s purchase system, the industry safety, and a security system of the company. This course guides new recruits to make a number of decisions about what is important and what is not, what is considered a problem and what is not, what is an appropriate behaviour and what is not.

Besides, company (C) carries out a number of introductory and focused courses in which organisational members have an opportunity to develop their knowledge and skills. The company also permits organisational members to make their own decisions on a number of courses. Each member has to go through an internal training route that gets him to a point and this training route is not an on and off one. Unless a candidate gets an opportunity to apply the knowledge, which he often gains directly, it will be difficult to retain this knowledge. The company provides both the organisational tools and context through which this knowledge can be utilised. For instance, the company has put into practice a technique

entitled “Distinguished Work Group” or DWG. The DWG technique is almost applied in all business divisions inside the organisation. The DWG strengthens organisational members to work together and to achieve further developments in a variety of organisational activities. For instance, the supply department has a number of distinguished work groups. These distinguished work groups can get together to utilise past information and existing information in order to accomplish further improvements in the supply process. Applying this system influences every member in a DWG. As a supply manager puts it:

“The most important aspect of the DWG is that everyone, in one way or another, would be affected by the system. Each employee has the ability and responsibility to tell us his viewpoint during discussions so that the organisation will have the very best results of the supply process. The DWG is one significant route that we choose to embrace new ideas and to move on them quickly.

◆ **Spread of new information.**

The value of new information proliferates when the company diffuses it quickly to a decision-maker. This often takes place because the ease of information flow is there and the heart of it is teamworking. Company (C) employs a set of communication means to disseminate new information throughout the entire organisation. It has put in place a number of communication media including minutes and memos, internal magazines, departmental staff meetings, and diagonal slice meetings (meetings that often bring together the managing director and a segment of employees on a monthly basis). The company also exploits an e-mail system that interconnects the organisation with external stakeholders. Faxes, agents, printed literature and a telephone are also common methods for internal and external communication. While company (C) utilises many media for communication, managers claim that face-to-face communication is the common medium for their everyday learning practices. They claim that the face-to-face medium of communication allows an open discussion and information feedback to occur. As a senior director puts it:

“The face-to-face meeting- we’ve got a work committee that has a meeting with me once a month and there’s a member from each department. It’s face-to-face meeting and the minutes of the meeting are published on the work notice board. So it’s openness”.

Company (C) exploits two mechanisms to secure privacy of internal information. *First*, the company disseminates information to a wide range of organisational members in relation to particular information needs or a workstation’s requirements. *Second*, the company utilises a job rotation mechanism to move key employees around different business

areas. A number of information systems are also networked to achieve this confidentiality. The company seeks to increase the likelihood that a new information is successfully integrated to an existing knowledge base. In that way, the company achieves two main advantages: (1) it can be better placed to protect significant internal knowledge from imitation and (2) it reduces the risk that results from personnel turnover.

6.2.2 Integrate New/Local Information into the Organisational Context.

♦ Integrate external information along with internal information.

The combination between internal and external information is a central technique that company (C) always recognises to make good use of new information. This integration is often carried out on a continual basis. Once the company starts introducing a new model, it gains new experience and then it learns how to apply this experience into a new situation. As an example, on the occasion of presenting the new production of the 4X4 Chevrolet Frontera (March 1998), the company administered an intensive training program before launching this new product. 80 persons attended the program. This figure included managers and workers in the sales and after-sales departments. A number of domestic dealers' representatives were also participating in this program. The program concentrated on explaining the new specifications and characteristics of the car showing its distinguished after-sale service in comparison with other rivals in the local market. The trainees had the chance to drive the car on a sandy and bumpy ground to recognise all its faculties. This program has created a sort of collaboration between the company and domestic dealers. The external feedback in combination with internal information has strengthened the company to operate effectively and hence, to establish the basis for a new product success in the marketplace. As the training manager puts it:

“It's the integration between internal and external information that really gives you the new products and take you forward. The internal tells you what you're capabilities are, the competence you have but also it's a case of understanding where you lack a competence in order to serve the external feedback”

♦ Information networks.

Company (C) employs a number of information systems in order to interconnect the entire organisation and also, to facilitate a diffusion of new information into a variety of users. To accomplish this, the company implements two interrelated structures of information systems. The first structure, which is intensively employed in the company, is based upon the concept of Integrated Information Management Systems (IIMS). The second structure is built upon the concept of Functional Information Management Systems (FIMS).

By using AS 400 and SAP systems, the FIMS structure interrelates a number of divisions inside the organisation. These divisions include finance, supply, production, sales, and planning. The flow of information that results from both structures strengthens the organisation to integrate a variety of major activities. The training manager explains that the electronic integration allows the company to have advantage over domestic competitors that have a reputation for not working that way. Each employee is connected into a PC and all PCs are networked through Lotus-Notes database. As new information comes in, it goes into the system and it is made ready for use.

♦ **Integrate local suppliers and dealers databases into the company information system.**

Company (C) incorporates local suppliers and dealers information into the whole organisational context. This integration strengthens the decision-making capability of a number of departments inside the company including supply, sales, manufacturing, and finance. This sort of integration helps the company to achieve a unique competitive position in the domestic market and strengthens the company to develop efficient backward and forward integration and hence, to better manage its value chain. The support of the worldwide partners along with an effective integration of information has allowed the company to nearly localise 70% of the pick-up and truck production lines. These strategic partnerships play a critical role in establishing the capability for collective learning inside company (C). Similarly, Pedler and Aspinwall (1996, p 100) pointed out that partnership that based on long-term commitment rather than a basis for short-term financial gains could overcome some of the learning difficulties faced by big companies.

Based on these partnerships, company (C) was able to put into action modern operational systems such as the Kanban system. The Kanban system represents a good example of the knowledge integration process inside and outside the organisation. The Kanban system stands for a modern structure of materials handling. It sets out to make the material handling process easier and controllable so as to prevent any kind of waste especially the Opel bulk materials. To apply the Kanban system company (C) has gone through some important steps. It had to choose a location for the Kanban store. It had to purchase all frames and shelf beams. The lean manufacturing group has produced all shelves from scrap, taking in their consideration quality and cost savings. The driving force for creating the Kanban system was the utilisation of existing information through the right work group. This information was used to start arranging material supermarkets both in CKD and small parts by distributing materials in sections according to a distributed list.

The information was also linked to arrange stations on NPR line and distributing materials according to a process sheet and a line operator's needs. The information was also combined to build pull cards for both materials handling and production line according to the actual location for each part both in stores and a line address. In addition to an effective transfer of information, this example demonstrates that the company maintains an excellent ability not only to acquire external information but also to integrate it with an existing information base. The production manager explains that the company designs its operations to make its people successful learners and more efficient and clearly confirms that the company leverages significant resources to spread best practices throughout the entire organisation.

◆ **Integrate information for decision purposes.**

In company (C), a large part of learning often takes place in order to improve the outcomes of the decision-making process in various business areas. Organisational members always get together and share learning in order to build a basis for successful decisions in a particular business area. For instance, individuals from the engineering department work together with the sales department before and after launching a new product. The technical experts often help the sales team to make a proper decision on the form of an early market study by providing them with relevant knowledge about the competitive specifications of the new product. This sort of knowledge helps the salesforce to present and to promote the new product in the marketplace. The engineering department also supports the manufacturing department to make efficient decisions on a number of aspects in the case of producing a new product. They work together to determine and to order the tools and equipment used on production lines. They also exchange experience and views on the necessary changes that should be made to the plant layout in order to suit the new model. This cooperation is further expanded to incorporate solving technical production problems.

Individuals from the supply department are also encouraged to share learning in order to improve the decision-making process in the whole division. They have recently worked together to develop the quality assurance and local suppliers agenda that the top management utilises to make effective decisions on issues related to the supply process. These decisions incorporate areas such as assessment of local suppliers, establishment of quality plans for each product, development of a follow-up system to correct local parts problems during the manufacturing process, and making suppliers aware of the most important applied quality systems. At the top management level, company (C) has established a committee that includes the managing director and all business divisions' managers. The committee members often get together to share knowledge and to decide on

an approach that the company should follow to cope with the intense competition in the local market. This sort of practice becomes an essential part of the everyday routine of the management. As the managing director puts it:

“It goes without saying that changes both on international and local levels have imposed upon us to be very cautious as to the aggressive competition we are faced with in the local market now. Some companies, which recently entered the business, have been trying to disparage the success of our company and we thoroughly have to stand-up to this competition with our products and our capabilities”.

6.2.3 Collectively Interpreting the Information.

♦ A close knit teamwork.

The top management encourages organisational members to get together and to share learning. Teamwork is increasingly seen as a core practice within company (C). A group business commitment, not individual commitment, is considered to be the way through which the organisation operates. A large part of the existing knowledge structure is developed via a group work mechanism that company (C) exploits to disseminate and to analyse new information. The training manager explains that knowledge is implicit in what is going on and individuals share it automatically because they know that the ability to communicate and exchange knowledge is beneficial. The top management targets a number of organisational efforts to ensure that all employees, at different operational levels, maintain a common understanding of what the objectives of the business are. It achieves that by carrying out regular team meetings in which organisational members draw the whole of the business together. Teamwork has become a major focus of the management initiatives that set out to improve the organisational performance.

For instance, company (C) often runs something called a “staff-executives team building meeting”. On this occasion, the top managers meet together in a long meeting with a number of staff from different organisational levels to discuss a number of issues. These issues might include the techniques that the company can exploit to create an integrated environment and to communicate expectations, beliefs, and values among team members. The top management also intends to build a team spirit among team members through trust, a sharing vision and by acting together through group activities. At the end of each meeting, participants usually discuss actions that should be taken not only to make the business successful one but also to contribute to the global organisation. The heart of this process is

that organisational learning takes place through sharing of knowledge in a team spirit atmosphere. As a senior director puts it:

“All departments meet regularly and pass over information so that we’ve constant learning internally. And each manager from departments will also have formal meetings on a regular basis so that all information is passed over and the knowledge is shared amongst the whole company. And it’s teamwork. We’ve a very good close knit team and the attitude of all persons is to succeed”.

This way of practice always helps the top management to develop a number of strategies and to implement them in a team spirit and positive environment at the workplace. For instance, the top management has recently carried out a series of learning sessions that have incorporated individuals from various divisions inside the company. The main focus of these group learning sessions was to encourage those individuals to work together and to think up new strategies that could help the company to deal with emerging business challenges. The outcomes of these learning sessions were great, as the group was able to develop 13 different strategies needed for a group work in a changing business environment. This has, in turn, assisted the company to successfully face massive competition in the domestic market. Each participant together with all team members was able to develop the core elements, implementation process, resources required, impact on the business timeline and follow up plans for each strategy.

The flat organisational structure that company (C) puts into practice is a contributory factor in facilitating these learning practices throughout the entire organisation. This structure helps employees not only to build a long running relationship with their managers but also to operate collectively. A large number of suggestions that are taken on board often come from the shop floor. Group learning becomes a central part of organisational members’ an everyday work culture. Once employees conceive an idea, they work together to come up with a first principal concept that guides their efforts. These efforts should, in turn, allow them to identify key elements that frame that idea and are common to all measures of understanding. Once, team members create new knowledge, this knowledge should be disseminated to non-team members that do not share the team’s tacit knowledge base. The end results are, therefore, representative of the collective work. As the training manager puts it:

“...That’s what you’ve got to try and get away from- is the idea that this mine. It’s ours. And that’s why we just in terms of a document, we never have is we only ever have “we’re”. If

somebody slips up and puts on “I” in, somebody will point it out to him because I believe we should do this it’s “we” believe we should do this. And if you involve people and get them to feel a part of what’s going on they’ll deliver”.

♦ **The Consolidate Procurement Organisation or CPO.**

The top management considerably values interconnectivity in all knowledge projects that take place inside the company. The top management views that employees can communicate better about activities, plans and joint opportunities when they are given opportunities to participate in drawing them out. As an example, company (C) has recently established an organisation entitled a “Consolidated Procurement Organization” or CPO. The CPO mechanism helps a number of business units to work together and to make collective meanings from new information. The establishment of the CPO mechanism was directed to generate further improvements in the existing knowledge base. These improvements were primarily directed to strengthen a communication network and to empower the capability for information sharing inside the organisation. The CPO mechanism has served as an efficient organisational tool for both information sharing and information utilisation. Within the CPO, a number of business units were tightly connected via SAP information systems. These business units incorporated purchasing, material management, business services, manufacturing, business information and research, and finance.

A new order for purchasing swaps among these business units for description, releasing, evaluation, decision and then processing. The CPO system allows company (C) to avoid buying non-required materials and hence, to reduce the number of orders by mistake into zero. The CPO also enables the management to track information and to spread it out to various business units. Besides, the CPO mechanism helps the top management to extract information at any stage of the system and thereby, to monitor the progress of the entire process. Based on the CPO mechanism, the top management can prepare exceptional reports through access to a co-ordinator called a “development material co-ordinator”. These reports include a variety of information such as purchased items, stages of orders, prices, quantities, suppliers and time scale. Because the CPO mechanism has interconnected system’s users together, the whole process was clearly understood and managed. The supply manager explains that the most important aspect of the CPO is that everyone in the company contributes to make the procurement process a successful one.

♦ **Think up new ideas.**

The management always encourages organisational members to utilise existing information in order to develop new ideas and solutions. Each employee is supported to find

out new ways of doing things, to shorten the time used to do these things, to make the best out of using the IIMS, and also, to keep systemic and organised files. Each business unit often carries out a monthly meeting to discuss new ideas and to compensate individuals that develop new ones. As an example, company (C) has recently run a number of group learning sessions. These learning sessions were directed toward strengthening employees to think up new ideas. The aim of these ideas was to help the business to face emerging competitive challenges that may result from implementing the GATT in the year 2002 (as the local government has signed for approving the General Agreement of Trade and Tariff or GATT). A number of organisational members from different departments have participated in these learning sessions. Those organisational members have worked together to draw out a number of solutions and initiatives that enhance the competitive capability of the company. One solution that was drawn out suggests that the company should increasingly rely on local suppliers to meet its material requirements.

Fast changes in the auto industry represents another challenge that presently threatens company (C). This challenge restrains domestic suppliers' capacity to generate a constant and a long-term planning regarding feedstock. By opening a dialogue between the company and local suppliers, a new solution to tackle this problem was proposed. This solution mainly supports domestic suppliers to sell surplus feedstock abroad, in particular to a number of emerging markets in Africa and Europe. Because local suppliers were supported to attain the ISO certificates such as ISO 900, 9001, and 9002, they were able to distribute their products to a number of worldwide factories, particularly in Tunisia and Portugal. In so doing, local suppliers were able to expand their production capacities and hence, to reduce the overhead costs. Company (C) has succeeded in capitalising on such situation in two ways: one way is to reduce its production costs and the other is to provide after sales services by using local materials. The above two examples demonstrate that company (C) excellently sustains the ability to utilise information and to make useful conclusions from it. Such practice allows the company to maintain and to strengthen a unique competitive position in the domestic market. It is proposed that the efficient use of collective knowledge is increasingly seen as a contributory factor to a sustainable business success. As the supply manager puts it:

“Our future business is all about keeping ahead of the competition and being able to respond to customers requirements. And unless we can keep ahead of that our future business will not grow. We can gain knowledge from worldwide to stay ahead of our competitors in the market”.

◆ **The Continuous Improvement Process (CIP).**

In company (C), the different business units work with been awareness that the organisation learns in order to face a growing competition in a domestic market. One strategic tool that company (C) adopts to promote this awareness entitles a “Continuous Improvement Process” or CIP. The CIP mechanism has explicitly launched in 1996. This approach simply classifies the main business units into different work groups. The main task for a work group is to help a business unit to innovate and to operate differently. The implementation of CIP was primarily targeted not only to eliminate all kinds of waste and non-value added practices but also to value ideas already being developed by employees. The CIP has strengthened the entire organisation to improve quality, to reduce costs, and to develop new processes. The CIP approach was empowered via cooperation between company (C) and its worldwide partners. This cooperation has strengthened the exchange of best practices and experiences. Company (C) has put in place a number of tools that actively encourage organisational members to achieve these objectives. The training director describes the CIP mechanism as the “paramount to the success of the company”. He continues to explain that it is the way through which the company generates new ideas and adds commercial value. The CIP mechanism was guided by the four priorities of a business management. These include commonalty, lean and fast, globalisation, and growth. The significant investment that company (C) has made to develop human resources was a central factor in empowering the CIP mechanism.

6.2.4 The Authority to Take Actions based on Interpreted Meanings.

◆ **The prime objective.**

Company (C) increasingly values organisational members’ contribution to an overall performance. It creates a culture that reinforces organisational members to share knowledge and experience. Employees are given an opportunity to define an information flow and hence, a feedback information coming back from them is very significant to the management. Employees broadly understand how putting information together helps them to learn and to develop new experience. The knowledge base is at the centre of the business. Once the company expands its operations, the knowledge base has to grow as well. The information technology in place allows the management to structure and to organise the use of an existing information. A full-computerised information system also facilitates a dissemination of information down to the entire organisation. This electronic information system transfers new information quickly and consequently, it strengthens organisational members’ capacity to act promptly on the company’s behalf.

As an example, company (C) has put into practice something called a “Prime Objective Scheme” or POS. The POS mechanism strengthens organisational members to act based on a shared meaning. Based on the prime objective scheme, organisational members can be better placed to work together and to share information that helps them to accomplish the organisational objectives. For instance, the production manager has a prime objective that is to be able to manufacture the products against a time scale, to get them out and to keep the customer happy. To accomplish this objective, the production manager can provide support to anybody else in any area and as well, anybody else can provide him with support. If this manager faces a problem he will basically make people aware within the organisation and they will come to assist him. The prime objective scheme thus widens the knowledge sharing capacity inside the organisation. This way of practice is broadly rooted in the company’s everyday work practices. As a line manager puts it:

“If there’s a problem let’s share the problem. Let’s work together and just the fact that everybody knows about the problem, doesn’t necessarily mean he is directly involving in resolving- coming up with a solution. But they are thinking about it. And there may just be that spark that comes through and it filters back through the system. And “hey” I’ve been thinking about your problem and I’ve got this idea. And you get that cross over and it’s the only way for us to work”.

♦ **The merit scheme.**

Each organisational member is required to work at two levels: doing the job and being aware of how the company operates. To achieve this, company (C) implements a reward scheme that strengthens organisational members’ commitment not only to share knowledge and best practices but also to act jointly. Through an existing reward scheme, the company intends to upgrade organisational members that show the ability to be a team player. The reward scheme is designed so that organisational members are compensated for the functions they are intended and supposed to perform. This, in turn, helps the company to accomplish major objectives and strategies. The progress of each organisational member is monitored through a feedback report, which often contains a section about his contribution to an innovation in his area and whether or not he supports and interacts with other colleagues at the workplace. Company (C) has also put into practice a merit system that links an existing reward scheme to organisational members’ performance. Cooperation, communication, team spirit, and knowledgeability are key elements that are taken into consideration when implementing the merit system. As a senior director puts it:

“We also operate a merit scheme every three months, in which people are graded on how they are doing their jobs, time keeping, knowledge, and experience. All that’s discussed with every individual. It’s quite time consuming but I believe it does pay benefit and the employee at that stage is encouraged to offer suggestions. We’ve a notice board on the shop floor that’s saying how many suggestions have we made and how many have we acted upon”.

♦ **Reflect on a past knowledge and an external feedback.**

Encouraging organisational members to act, based on knowledge, is an important aspect of company (C) learning cycle. To support this way of practice, the company provides organisational members with a number of learning and training opportunities that encourage them to work collectively. The company also promotes the need to look outside to see what competitors are doing and to look for information from all sources and to filter that information through the central hub. This information broadens business units’ capacity to comprehend market changes and hence, to initiate further product development. The sales manager remarks that customers often like to try new models that they have not tried before and explains that because knowledge of where autos are starting to sell will then focus minds into a new area of business. He adds that the company does not want bring in a new product unless it knows that it can complement the current range and also, generate an economic return. He also points out that it is all knowledge resulting from what people have done over the last five years. This way of practice proposes that managers often reflect on previous experience and knowledge to approach new actions. It also demonstrates that both past knowledge and external feedback information are critical for leveraging decisions on new products. A production manager explains that knowledge is built up more through experience rather than in the classroom and emphasises that the impossibility of explaining to people in a week all the things they need to know.

As an example, the production schedule and logistic business unit has implemented the Continuous Improvement Process (CIP) approach to shorten the period taken to move imported materials from Damietta port (north of Egypt) to the plant at 6 October City. By capturing past information on a variety of real cases and by analysing them, the production and logistic unit was able to work out a solution that has shortened this period from ten days to three days. This solution has significantly cut down the total cost of the process. Besides, the company was able to overcome the shutdown problem over the last few years. The past information used has covered a number of internal and external aspects. It has incorporated internal aspects such as the production capacity and sales requirements. It has also included

information on the custom procedures in the ports and how the company has adapted or modified them. Besides, it has involved analytical statistics on past events. This example reinforces the need for reflection on past information and historical cases in order to initiate new activities. As the logistic and supply manager puts it:

“A lot of the solutions that we come up with are experienced based. I mean we don’t just sit down and dream these things up. More often than not we’ve come across a similar situation in the past or we can relate to something similar in the past. We’re not reinventing the wheel every time. But yes, it’s developing on the knowledge we’ve got. Without our experience we wouldn’t go very far that’s for sure... ”.

◆ **Reinforce a learning culture.**

Company (C) has put into action a number of activities that spread learning throughout the entire organisation. It runs a large number of training programmes that meet the learning needs of various divisions in the organisation. These training programmes intend to broaden organisational members’ capabilities to implement the business plan and to accomplish the strategic objectives of the company. For instance, one of these training programmes is targeted to supply the corporate workforce with all the skills, knowledge, methods and tools they need to be able to head efforts geared toward realising the general goals of the company. Another training programme, which takes the form of focus groups, is directed to enhance the capacity to generate new business ideas through effective communication and teamworking. Because of its importance, this course is carried out twice every year in July and August and is headed by the training director. The managing director usually attends this programme to emphasise the importance of training and its effective influence on the business process.

Company (C) also runs a training programme entitled “advanced supervision skills”. This training programme is carried out regularly to provide leadership from the shop floor with the concepts and relationships essential for human relations. It covers a number of issues that concern first line supervisors such as appraisal process, coaching, and counselling techniques. Participants deal with these topics in view of the company strategic plan and also, their potential influence on customers’ satisfaction, financial growth and the organisational shared values. The planning and time management programme constitutes another key training programme that company (C) often carries out. This programme provides organisational members from different divisions with an opportunity to learn various things including planning, planning obstacles, time management, managing stress, and application and work plans. The training department with the cooperation of the

department of sales and after-sales services organises a training programme entitled a “clients service power programme”.

This programme provides the salesforce with knowledge and skills that help them to understand clients’ needs, to absorb key factors in the clients’ service and to build a mutual relationship with clients. The training department with the cooperation of supply division runs a series of workshop seminars that seek to provide individuals from the supply division with the skills and tools required to deal with supply problems. Company (C) also carries out an internal control conference that sets out to improve the skills of employees that work in the internal quality control division. These practices are increasingly seen as crucial factors in sustaining and strengthening organisational achievements. The training manager describes knowledge and people’s desire to move forward as the driving forces to maintain a corporate success. He goes on to clarify that maintaining such success provides the reference for other work; since employees view learning as a continual feeding process. Working with case study (C) data, it is apparent that the top management significantly emphasises training as an essential learning tool, not only for those inside the company, but also for outside stakeholders. As the sales manager puts it:

“If you’ve a very good training course established or training concept established within the business. You then look outside and say well what about my dealers I’ve got to train them. If I’m talking on a distributor that’s going to sell my products in the market. Then under those circumstances I’ve got to give them ever more training than I give to my people to be able to support these products out in the marketplace”.

6.3 The Way in Which Company (C) Assimilates and Exploits Knowledge to Sustain and to Strengthen a Competitive Advantage, as Managers Perceive it.

This section sets out to briefly explain the way through which company (C) assimilates and utilises collective knowledge to generate commercial ends. Drawing on informants’ views, this section primarily outlines the concepts and the way in which company (C) exploits the capability for organisational learning so as to differentiate its products and services, and its processes from its competitors in the eyes of its customers. Through working with case study (C) data, it is obvious that organisational learning is increasingly viewed as a central factor to overall performance and to organisational survival. Participants broadly believe that organisational learning increasingly provides an essential

basis for a sustainable competitive advantage. Participants view that the experience that company (C) maintains in an auto assembling industry is enormously unique and it is quite difficult for competitors to replicate unless they poached it from company members. Participants explain that for competitors to start from scratch and to build up the experience that the company currently obtains is an increasingly difficult task because those competitors have to go through a long learning curve, which is quite costly for them. The uniqueness that company (C) achieves and sustains results from organised preparation not only to maintain knowledge but also to constantly update it. Garud and Nayyar (1994, p 383) pointed out that firms that recognise the worth of past efforts will be best able to maintain their corporate vitality. Since company (C) tailors that knowledge to customers' needs, it gets a competitive advantage from exploiting it. As a sales manager puts it:

“It is only knowledge and if there's a product available for us and the market is quite good, unless we've got the experience of selling into that market, we don't bring that product in. We would far rather bring a product in that we already have the knowledge or we have 50% of the knowledge and we can grow on. And that's what most of this business success comes from, its from our knowledge and people skills”

It is worthwhile now to turn to a brief discussion on the way by which company (C) leverages the capability for organisational learning to sustain and to strengthen a competitive advantage. The approach that company (C) presently adopts to promote organisational learning demonstrates the determination to acquire information from multiple internal and external sources. Internal information is widely developed from past experience, historical information, usual interactions in teamwork situations, training sessions and seminars, orientation and focused courses, repetitive problems, and internal conferences. Alternatively, external information mostly emerges from surveying the marketplace, gathering updated information on competition, accessing suppliers and dealers' information bases, collecting public statistics, searching trade literature, fairs, papers, and obtaining information from worldwide partners and affiliates. Having acquired this information, the company then enhances various business units to process and to analyse this information according to their operational needs. Business units should then diffuse out this information to various users, utilise it to accomplish the business goals, and maintain it for future use.

The leadership of a business unit has to provide employees with an opportunity to participate in critical decisions, to think up new ways of doing things, to generate new ideas, and to reflect on past experience. The flow of information between and across departments is interconnected via full-computerised networks. Quality of information, experimentation, and

commercialisation are three core criteria for carrying out information integration. The information integration is targeted to strengthen the company capacity to generate commercial ends from exploiting internal knowledge. The current methodology of collective learning reinforces company's (C) intention to develop a number of competences that are built upon organisationally developed knowledge. These competences include the Continuous Improvement Process (CIP) mechanism, a product portfolio approach, an online interaction with suppliers and dealers' information bases, the Consolidate Procurement Organisation (CPO), and the Kanban system and lean manufacturing.

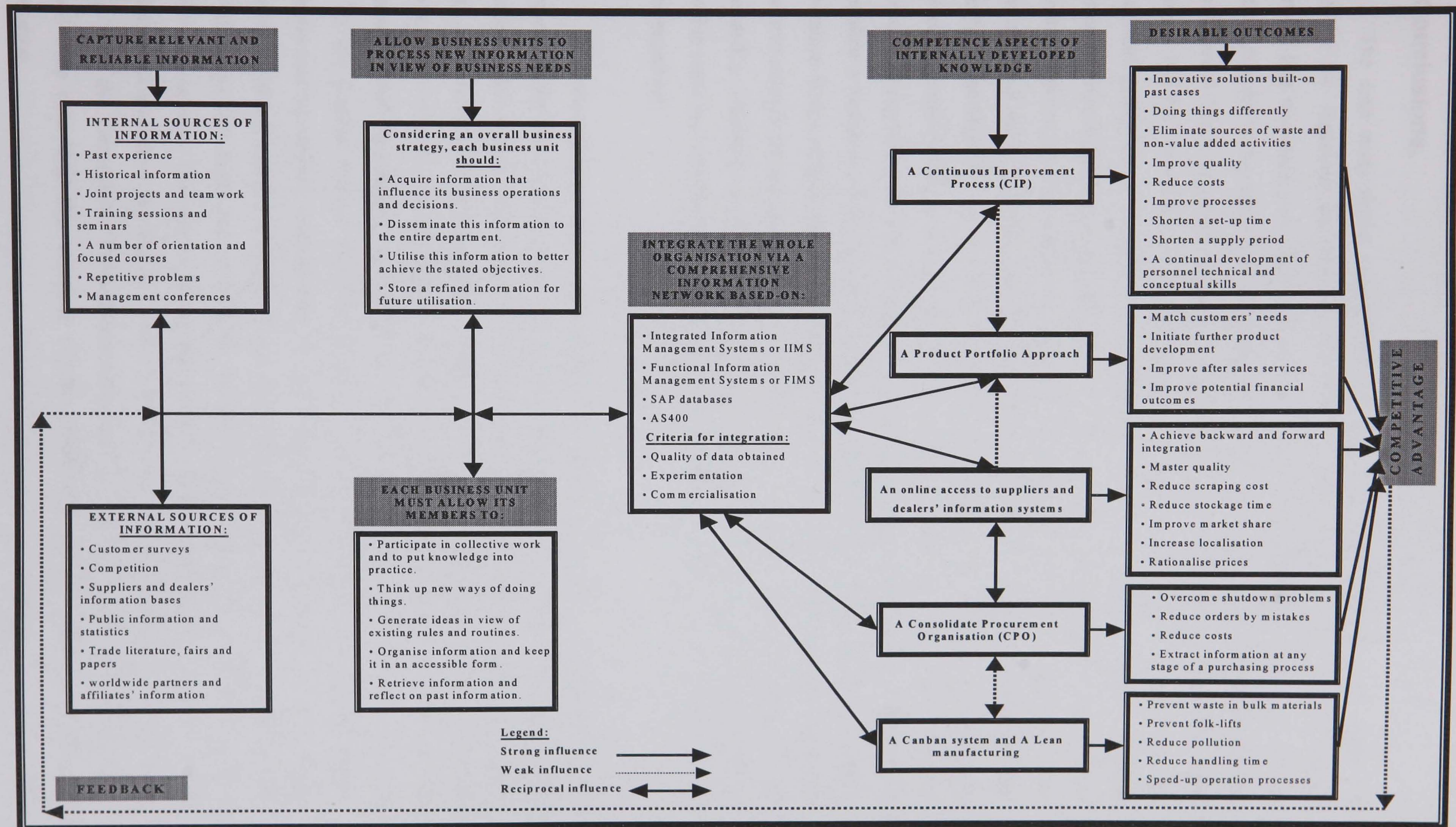
Managers clarify that an effective use of the above competences allows the company to achieve a number of competitive outcomes. The continuous improvement process reinforces organisational members to generate new ideas, to eliminate waste, to reduce costs, to improve quality, and to shorten the supply period and set-up time. The product portfolio approach empowers the company's capacity to meet customers' needs, to initiate new products, and to improve after sale service applications. The online access to suppliers and dealers' information bases improves the ability to master quality, to reduce scrapping cost, to shorten stockage time, to increase a market share, to localise 70% of the components of a number of products, and to rationalise a pricing policy. The consolidate procurement organisation helps the management to overcome shutdown problems, to reduce orders by mistake, to reduce costs, and to extract information at any stage of a purchasing process. Implementing the Kanban system and lean manufacturing helps company (C) to prevent waste in bulk materials, to prevent folk-lifts, to reduce pollution, to reduce handling time, and to speed up the production process.

It is suggested in the above discussion that company (C) can trace its competitive advantage to collective learning in a variety of ways. *First*, organisational learning strengthens the company to maintain a cost advantage in organisational activities. *Second*, organisational learning supports the company to achieve a time advantage in a number of operations and processes. *Third*, organisational learning assists the company to improve the quality of its operations and products. *Fourth*, organisational learning reinforces the company to meet customers' expectations. *Fifth*, organisational learning allows the company to leverage a past experience to new markets. *Sixth*, an internal knowledge base, which is maintained, is difficult to transfer outside the organisation. A line manager explains that internal knowledge gives them a competitive advantage over their competitors in that those competitors are not so able in doing that as themselves. He continues to describe that internal knowledge gives an experience that helps them to design things or to talk to the customer knowledgeably about what products they are going to give him. He adds that by using

internal knowledge, they are in a better position to understand what the customer requires and can therefore provide him with a product that meets his requirements.

The company (C) benefits from five core factors when leveraging collective learning to a competitive advantage (Shehata, 2000, p 279). *First*, it exploits a flat organisational structure. *Second*, it implements a well-established management system that firmly describes roles, responsibilities, and authorities of organisational members. *Third*, it considers quality a cornerstone of an existing management system. *Fourth*, it intensively relies on computer-based activities and a research work. *Fifth*, it cares for workers in that it provides them with a job security, health care, learning opportunities, housing, social activities, medical care, and a pension system. Not only do these factors facilitate and promote a learning culture throughout the entire organisation but they also strengthen the company's capability to sustain an organisational success in a domestic market. Drawing on managers' perspectives, figure 6.3 demonstrates the way in which company (C) assimilates and exploits collective knowledge to sustain and to strengthen organisational achievements.

Figure 6.3: The way in which company (C) assimilates and exploits collective knowledge to achieve commercial ends, as its managers perceive it.



6.4 Conclusions.

The case study above reveals the mechanism in which company (C) creates the capability for organisational learning in terms of the four-step cycle. The chapter is organised into two main parts. Part one is devoted to examining the organisational learning practices that are being carried out in company (C) and also to placing these practices in the organisational learning cycle. It was apparent that company (C) has placed an equal emphasis on the four steps of the organisational learning cycle. In the first step, the widespread generation of information, the company has made intensive efforts to gather information from internal and external sources. Internally, the company has put into practice a number of processes that sought to engage each organisational member in generating new knowledge and ideas. Organisational members were encouraged to generate information via a feedback mechanism and by reflecting on past experience. The top management has increasingly exploited teamwork, an internal training programme and a number of workshop sessions to strengthen individuals' capacity to create new ideas. Externally, the company has established a business information and research division; one of its major tasks is to gather information from multiple sources. Company (C) has also carried out a number of customer surveys to acquire information from the marketplace directly. In addition, company (C) has succeeded in obtaining an online access to local suppliers and dealers' information bases. The sales team has considerably participated in capturing information from both customers and competitors.

The second step of the organisational learning cycle, the integration of new information into the organisational context, was enhanced by a number of organisational initiatives. The company has utilised information networks to integrate information to the whole work context. The integration of information was expanded outside the company boundaries to include domestic dealers and suppliers' information. This sort of integration has strengthened the company to implement a number of modern manufacturing techniques such as the Kanban system and lean production. The company has also rotated its key managers around various business areas to facilitate information integration. The company has assimilated information in relation to decision-making purposes and via cross-functional team meetings. The third step, collectively interpreting information, is accomplished by a number of processes. The size of the company has helped organisational members to work together in small teams in order to resolve problems and to think up new ways of doing things. Both the Consolidate Procurement Organisation and the Continuous Improvement Process were core tools that company (C) has effectively used to make meanings from information.

The close association between the top management and other operational levels has helped employees to share important information with managers. The fourth step, the authority to take a responsible action based on an interpreted meaning, is accomplished by a number of activities. Company (C) has provided organisational members with an opportunity to reflect upon new information and to draw lessons from that. The reward system has enhanced organisational members to work together and to act upon interpreted meanings. The prime objective scheme was another important mechanism that the company has established to encourage organisational members to act on organisational knowledge. A top management commitment and an organisational culture were core elements in encouraging members to act on shared meanings.

Drawing on managers' views, part two of this chapter is dedicated to outline the concepts and the way by which company (C) leverages organisational learning to a sustainable business success. This part was an attempt to explain the way by which the company integrates and utilises collective knowledge to generate commercial results. It was obvious that collective learning has enabled the company to develop a number of internal competences upon which its competitive advantage was based. Acquiring, sharing, and utilising information were all elements that helped the company to apply a Continuous Improvement Process (CIP) approach, to create an efficient portfolio of products, to capitalise on its suppliers and dealers' information bases, to implement a Consolidate Procurement Organisation (CPO), and to put into practice a number of advanced manufacturing techniques. The growth of these competences has, in turn, strengthened the company's capacity to achieve competitive outcomes that have resulted in cost reduction, quality improvement, more effective time management, innovation, increased localisation, increased speeding job completion, and an increased market share.

CHAPTER SEVEN
CASE STUDY (D): COMPANY (D)
(Promoting for learning via value-based management)

Chapter Seven

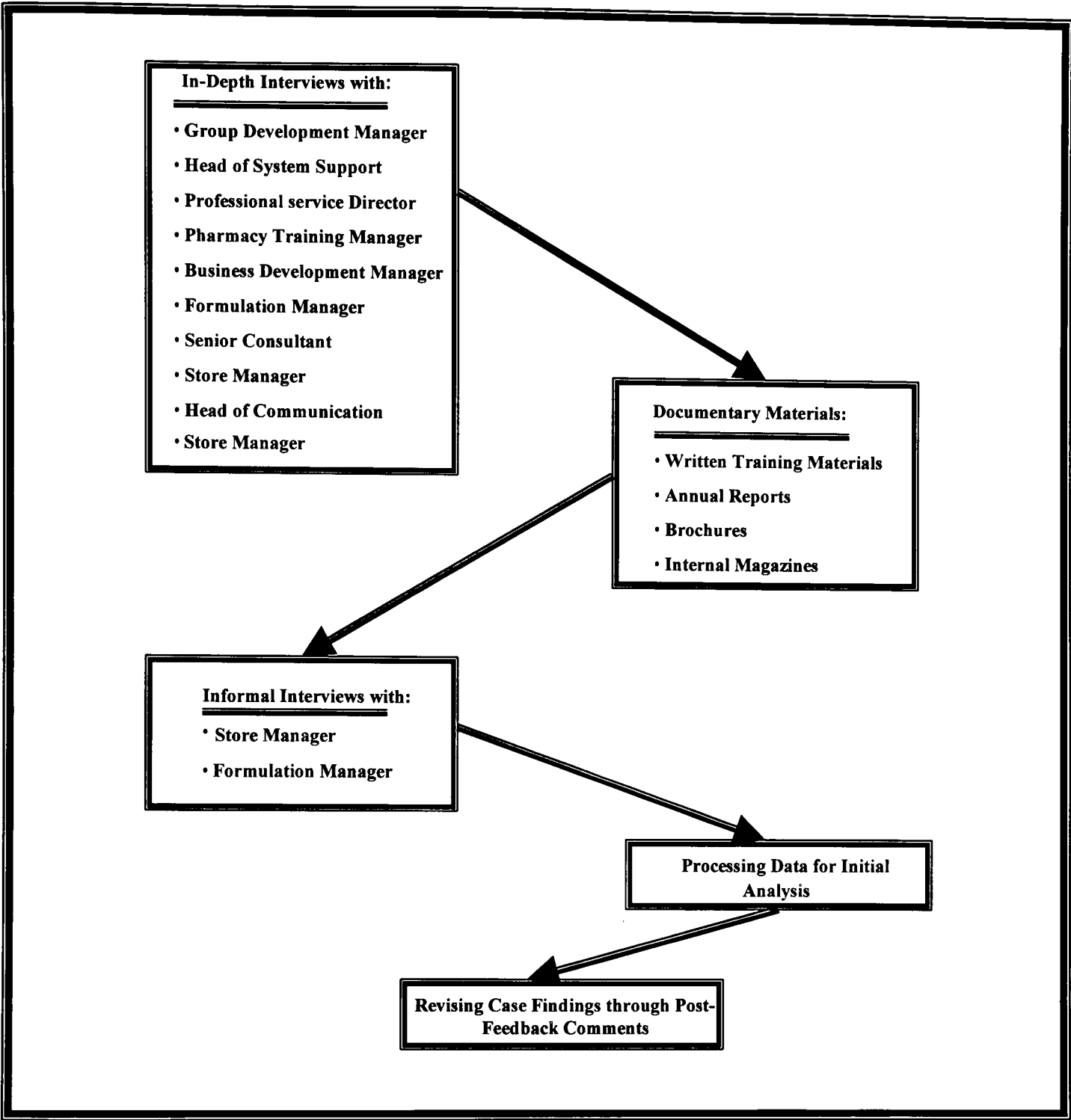
Case Study (D): Company (D)

I can see real benefits in having a knowledge structure and it would really support a competitive advantage. I think our knowledge structure is very 'hap-hazard'. And I think we've pockets of knowledge. And I think the bits of knowledge that we have, are definitely key to our competitive strategy. (Professional service director, company D).

7.1 Background.

Company (D) was established in 1883. Company (D) serves primarily in retailing and is located in the UK. In addition to retailing, the company's business activities include product development, manufacturing, international marketing and property management businesses. Company (D) is comprised of eight separate businesses. Each business operates independently for most purposes with an executive board and management team totally focused on the opportunities to create value within its chosen markets. These business units are built around a technology base or a family of products that serves particular markets. The group overall aim is to ensure that these business units maximise their opportunities and generate strong cash flows by meeting customers' needs. To achieve that, company (D) maintains a high level of investment in growing and extending its businesses and in increasing their efficiency and competitiveness. The sense of this common objective flows directly from a philosophy of managing for value, which is to maximise the value of the company for shareholders. This orientation harnesses the skills and knowledge of organisational members and provides an unambiguous measure of their achievements. The head office role is to help business unit managers to develop and maintain a broad strategic perspective. This involves: (1) encouraging business unit managers to look beyond their natural horizons both longer term and across businesses, and (2) focusing on the interface between business units, that is to act as a catalyst for innovation by identifying new opportunities the businesses units might abandon. Figure 7.1 following presents case study (D) planning process.

Figure 7.1: Case Study (D) Planning Process.



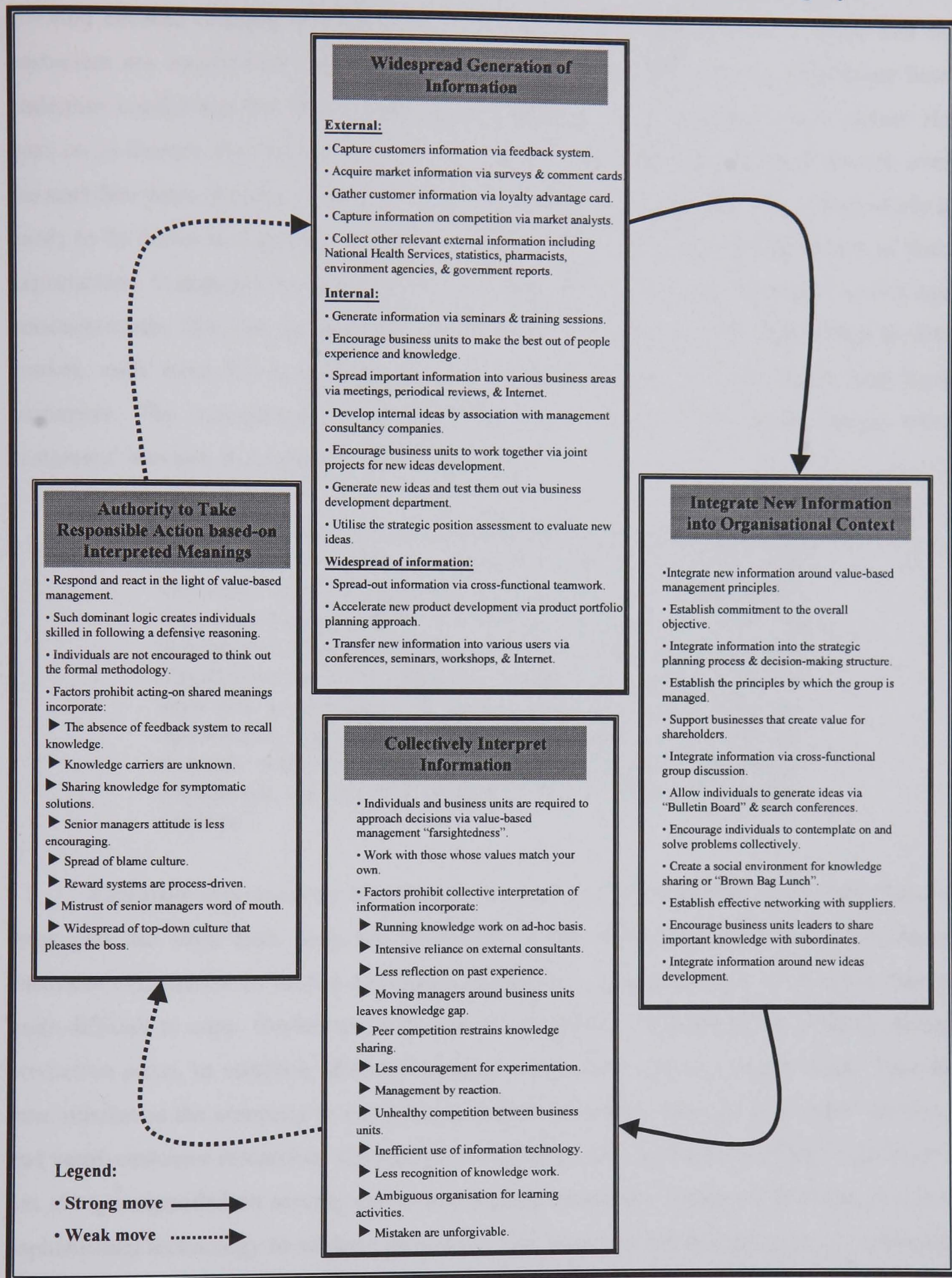
7.2 The Basic Steps of the Organisational Learning Cycle: Company (D).

This section examines the basic steps that company (D) is going through to create the capability for organisational learning. Company (D) is results-oriented and this is broadly reflected in the language of its managers. Company (D) develops its organisational learning initiatives around the Value-Based Management (VBM) approach. The top management views that the existing learning activities should generate measurable values for shareholders and should maximise their wealth. Existing learning activities are widely deployed to spread knowledge about the group overall business strategy and objectives. Although company (D) organises a variety of learning activities including search conferences, seminars, group meetings and cross-functional teamwork, organisational members do not share knowledge around the organisation continually. Participants provide a number of reasons for this

statement. One perspective suggests that company (D) does not tend to give organisational members time out to reflect and to learn in cells. Another perspective reveals that the top-down approach that company (D) currently employs to transfer knowledge, slows down the occurrence of organisational learning.

Some managers claim that the existing approach of value-based management does not support learning activities that are carried out inside company (D). Individuals are less motivated to share knowledge presuming that by sharing their knowledge they may devalue themselves in the company. Informants also explain that an existing culture only supports sharing knowledge for discovering symptomatic solutions. Generally, working with case study (D) data proposes that the company utilises various methods to generate external and internal information. Company (D) also develops a number of techniques to integrate new information into the entire work context. While company (D) has embarked on promoting an action learning programme a few years ago, reading the case study data proposes that individuals still face some obstacles either to make collective interpretations from information or to act based on shared meanings. Figure 7.2 below synthesises the basic steps of the incomplete organisational learning cycle of company (D). In the following sub sections the different elements of this incomplete cycle will be discussed.

Figure 7.2: Elements in Company (D) Incomplete Organisational Learning Cycle.



7.2.1 Widespread Generation of Information.

◆ External information.

Company (D) acquires external information from multiple sources. It has established a customer feedback system that supplies the management with updated customer information. This information is often transferred to all levels of management and serves as

an ongoing basis for continuing improvements. Utilisation of customers' information is growing because company (D) needs to maintain regular feedback and to ensure that its customers are satisfied. A store manager explains that a stable and loyal customer-base underpins confidence that the company is continuing to create value for shareholders. He goes on to identify that if the company is to achieve its ambition of profitable growth over the next few years, it needs to be better than competitors in everything it does; particularly it needs to be better at customer service and it needs to satisfy customers in excess of their expectations. Company (D) also gathers information from customers via questionnaires and comment cards. The chemist business unit, for instance, maintains 1400 stores within the UK market; each store has a network of acquiring information from the streets and from customers. The management views that the best business ideas usually come from customers' surveys. As a senior consultant puts it:

“The information we get from marketing department can tell us something. For example, customers said service is very important. And I knew from the way the team works in the store that the optometrist is central to that team and hence the service the optometrist gives. If an optometrist said that you should have an under reflective coating or if the optical advisor says you should have an under reflected coating, what the optometrist says carries more weight. And that possibly an example where knowledge sharing has led us, as individual department, to put that together and it gives us a better solution”.

Company (D) develops its strategies to match local customers' needs and that, in large part has been built upon the knowledge it has about each local area. Processing customer information in such a direction can lead to a synergistic way of thinking that is quite difficult to copy. Customers' information strengthens company (D) to develop strong promotion plans, to establish effective formats for its stores and to monitor stock. This, in turn, reinforces the company to carry out a number of market reviews, customers' surveys, and many customer researches. Continued profitable growth, particularly in the retail sector, has always depended on serving and understanding customers. Company (D) thus employs sophisticated technology to achieve this target. The company has utilised both its marketing system database that was introduced by the Opticians Business Unit and most significantly by the Loyalty Advantage Card. Eight million customers currently use this advantage card in the UK market. It is the first loyalty card based on smart technology to be used by a major retailer. The advantage card provides company (D) with much deeper information about its customers. This type of information helps the company to refine the system it adopts to develop and to distribute its final products. A pharmacy training manager explains that no

competitor is yet strong enough or in a position to copy everything that the company does because of its market position.

Company (D) also acquires information on key competitors in the marketplace. It hires a number of marketing research analysts to watch the competition continually. The management believes that the active scanning of an external information often comes from a direct interface with the marketplace. Company (D) tailors competitors' information according to the various business areas. This emphasis assists the company to benefit from collecting competitors' information. For instance, the Chemist business unit is responsible for gathering information on major competitors such as M&S, Superdrug, Tesco and also, on exemplar competitors such as Wal-Mart and the GAP. The Optician business unit is responsible for capturing information on major competitors including Vision Express, Dolland & Aitchison, Specsavers and Optical Express. This sort of information allows the company to monitor its performance on a rolling five-year basis against ten major competitors. Besides, it helps the various business units to make effective decisions regarding various issues including pricing policy, launching of new products and services, and establishing new stores. Company (D) increasingly focuses on competition since a large number of competitors has entered into the marketplace during the last two decades. Gathering external information is also extended to cover aspects arising from the National Health Service, national statistics, pharmacists, environmental agencies, and government reports. A professional service director explains that the company always assesses itself in relation to competitors, the market, the government intention, economic forecasts for the health service and by talking to customers. He continues to clarify that managers get all that information together in one report and then, work out where they can actually impact on the business share.

♦ **Internal information.**

Company (D) regularly utilises internal knowledge to develop new products and services. Such knowledge is built upon its history of manufacturing, product design and innovation, and its entire pharmaceutical heritage. Company (D) increasingly benefits from utilising this knowledge, particularly in some business areas such as the Contract Manufacturing Business Unit. Employees that work in the scientific area tend to be there for many years. Some of them can work there for 20 or 30 years. And a lot of the knowledge they have gained and they have worked on in the past is really in their heads. In the past, the management was convinced that there was not a need to find a way for storing this knowledge because employees who possess this knowledge were still working in the company. At that time, there was no problem regarding this view because people in the

science area did not move around the businesses so much. Once company (D) started to move people from science to different business areas it immediately recognised the need to structure this kind of knowledge. To achieve this, company (D) starts to run a number of training programmes that are directed to disseminate significant internal knowledge. That means, individuals who have the conceptual and practical experience start to teach everybody else in the organisation. These programmes are usually managed by a number of co-ordinators. This method proposes that there is an increasing recognition of the need to share the experience that people have had over a long period of time. Company (D) also offers managers a broad range of experience and career opportunities and encourages all business units to find their own ways of making the most of their people's potential.

Informants claim that the capability for organisational learning should rest upon providing people with access to all information and letting them use their imagination and their ideas and then provide feedback. They believe that the quality of the company's human resources and their technical expertise is increasingly available to meet what the business needs to do. A group development manager explains that their human resources have the technical expertise that enables them to develop something new and unique. Participants view that providing a level of trust for people and targeting them to achieve an overall objective is very important to get the best from them. Company (D) disseminates important knowledge into various business areas through using written materials or periodical reviews and via electronic communication tools including an Internet. Sharing knowledge amongst different business areas supports a creation of potential business opportunities; business opportunities that are built upon knowledge. Each department carries out a monthly meeting, sets up libraries and establishes a resource centre. It also provides employees with access to a wide range of tapes, videos, books and magazines that strengthen them to develop their skills and knowledge. Company (D) also hires a number of external consultants that give counsel on what is good for the business and what is not. This way of practice helps each business unit to improve its operations. Employees increasingly recognise the importance of transforming information into working knowledge- knowledge that helps them to improve their insights and behaviour. As a head of communication puts it:

“So in my words, I would sort of say well information you're beginning to put a bit more focus, the data is just lots of numbers and facts. This is synthesising that down a bit more to what you think is important. Knowledge then is I suppose tested it. This is what I think is important to the business; knowledge is testing that assumption. So data would be everything, information you're making some assumptions and knowledge you're in a way testing those assumptions”.

When looking at the capability of company (D) to create new business opportunities from knowledge, there were two main streams of business opportunities. One is the new business opportunity that entirely comes from each business unit and the other is business opportunity, which emerges from the product development department. Historically, each business unit was working on developing its own brand plan. It was known exactly what products it did want to put on the market. Each business unit has also done that in isolation from the product development division. Each business unit just goes and asks the product development department to launch the products it needs. This way of practice has had a negative impact on the business because there was no cooperation between business units regarding the development of new products. Company (D), therefore, starts to encourage business units to work together in order to develop new business opportunities. It recognises that each business unit needs to take into its consideration all the knowledge available in the whole group to do something different and something reasonably sustainable, different from what other grocers such as Sainsbury's, Tesco and Asda can do. Accordingly, business units are growingly encouraged to operate with each other in order to create value from utilising internal knowledge. As an example, the contract manufacturing business unit has recently co-operated with the chemist business unit to generate a new product. This sort of co-operation has enabled company (D) to develop a successful business idea. As a formulation manager puts it:

“... But we've been working together as a cross-functional team and we've come up with a brand new range basically, which will be launched very shortly and again it was something that really was born out of the mix of the technology and the new consumer need and I don't think either of us thought it would have been possible and so it's used the technology in a new way. And that has meant the actual product development time has really been shortened. And we've actually got something out of the end, which neither of us could have envisaged, on our own”.

Currently, this way of practice is widely encouraged in company (D). Another example involves a project looking at chiropody where part of the sharing of knowledge occurs between staff from the chemist unit, opticians unit and a service business unit. One of the key factors in chiropody and dentistry is that the whole economics revolves around how many people they actually see in the day. Because the company has to pay the dentist for a full eight-hour working day, it actually wants him working as hard as possible. Therefore, it has to share knowledge with the opticians unit about how many people their optometrists see each day. It has also to share this knowledge with a service business unit with their garage services to find out how busy they are with their mechanics. Company (D) was thus able to

get a good feel this chiropody option, that is what occupancy is a realistic occupancy? It sought to utilise its capacity and to make sure that one hundred percent of the time is filled. This is also another practical example of sharing the knowledge in company (D) to create new business opportunities. The significant point here is that there was no formalised structure in place where those people come together, but projects, which the project team identifies.

Working with case study (D) data also reveals that the business development department is responsible for generating information about the business and also about the business opportunities. This department also has a propensity to test different markets that company (D) does not currently operate in. It has to construct various scenarios. Once it develops these scenarios, it again gets a group of people in and develops a pilot plan and view of whether the business actually does need to take up that particular opportunity or whether it should be written off and not tried. Or whether this business opportunity should be developed further. Overall, company (D) increasingly utilises internal knowledge to create new business opportunities. It does also make a balance between external and internal knowledge to create these business opportunities. It does not look at competitors and exactly imitate what they are doing. Rather, it looks at its business strategies and interprets such knowledge to generate totally new business ideas. Such as the one it started to sell a few months ago. It is travel insurance off the shelf and no other retailers sell it like that. It also sells health insurance off the shelf and that comes from the thoughts of 'saying the chemist unit is about health care what other goods or services could it actually deliver to its customers'.

♦ **Widespread generation of new information.**

Company (D) makes use of a number of communication media to spread out new information. The most usable form of communication is a cross-functional teamwork. It is a team of people who are managing a project from start to finish and they have come from different organisational backgrounds. They aim to deliver products and services to the market as fast as they possibly can. Using internal knowledge is a key to the success of teamwork. Historically, company (D) tended to have a poor record for the speed at which it generates new products. This is, because it tended to go back to first principles and develop a product from scratch, rather than using existing things and tweaking them. But with the portfolio approach, company (D) knows certain claims about the product and alters them and gets out there, really fast. The product portfolio approach also allows for taking a much greater risk into account. It is all about internal knowledge. Because company (D) has to predict and to know more or less about what is going to happen to its products, so it can put

it through much faster. Getting people to accept that as a way of thinking, company (D) exploits some communication methods. These communication media include educational materials and courses that cover various topics, conferences- top 50 managers meet twice a year and top 250 managers meet twice a year, moving people around different business areas, and cross-functional teams. However, the cross-functional teams are the common media for communication inside company (D). As a business development manager puts it:

“Now if you didn’t have the cross-functional knowledge sharing, I might not connect something in my part of the business with something in somebody else’s part of the business. Which if we put the two together, you’ve got a potential for a business opportunity”.

From an individual perspective, managers believe that the company made information available to everybody, not just someone who happens to have a piece of paper on his desk or who has power. Information is transferred to everybody through an email system either inside or outside the business. It is also disseminated through other communication media including courses on a particular subject that are targeted to develop managers, internal conferences, seminars and workshops, and discussion groups. The use of information networks also facilitates information diffusion. Once every employee or every business unit is connected electronically through networks, information flows more readily. The information technology department spreads out new information through extending business units information space, providing them with flexibility to capture hard and soft information, supporting multiple users views of information, connecting relevant items of information together, and allowing different users to explore a variety of information patterns or connections. The above discussion reveals that company (D) devotes concerted efforts to generate internal and external knowledge. The discussion then moves on to explain the way by which these piles of information can be integrated to the organisational context.

7.2.2 Integrating New Information into the Organisational Context.

- ◆ **Establish a commitment to Value-Based Management (VBM) throughout the entire group.**

Company (D) integrates new information throughout the entire group via the value-based management approach. Participants claim that the company seeks to establish a number of rules and principles by which the group can be managed, to create an organisation capable of achieving group goals, and to ensure that all strategies are integrated to achieve them. The value-based management is a technique developed for measuring shareholders value. It draws on the principles of Net Present Value (NPV) and Discount Cash Flow method. It is used for the purpose of investment appraisal. With value-based management, the value of the company is estimated by developing a future cash-flow forecast and

converting it into a present value. The total value of the business is then computed by taking away the value of debt and adding any value not included in the calculation. Dividing the result by the number of ordinary shares yields estimation to the shareholder value per share. A group development manager explains that the value-based management is more than a technique for measuring shareholders value, it is a philosophy of management. The value-based management involves both strategic planning process structure and decision-making structure that managers follow to make operational decisions. As a head of system support puts it:

“I think the way I look at the value-based management is that the strength of it is that it gets you to come up with lots of alternatives and options. And yes you might evaluate those to see which one you go ahead with but inevitably some of others might trial in isolated areas for instance and see how it goes. If you look at it in that it's generating alternatives and options and encouraging you to look at what's happening in the competition. So as a process to get you look at options and alternatives and consider things that you think are quite radical, it is actually very good”.

At the heart of the VBM, managers emphasise the cash flow impact of their decisions and actions sooner than traditional accounting measures such as profits. That means, a cash flow is the most significant determinant of shareholders value. Managing through value-based management, in company (D), depends on two essential propositions. *First*, the VBM addresses maximising shareholders' value as the governing objective for management. Consistent with this, the top management considers that the best overall measure of the group performance is the total return to shareholders calculated from the movement in the share price and the value of dividends as if reinvested when paid. *Second*, the value-based management considers the long-term cash flow as a major determinant of shareholders' value, so managing for value is about maximising cash flow. The group center achieves this objective by establishing the principles through which the group is managed, by creating an organisation capable of achieving the group goals, and by ensuring all strategies are designed to achieve this goal. Company (D) tends to align the group centre's policies and activities with the agreed role to improve the effectiveness of the centre itself. It attempts to ensure that the strategic planning process is less bureaucratic and more trusting. It achieves this by improving the information flow that strengthens various operational levels to develop effective strategies and also, through a continuous development to its human resources. From the shareholders viewpoint, the value of the company, its share, and its strategy rely on the magnitude of future cash flow they generate.

The management mission is to maximise the value creation by increasing the potential cash flow of the business. For the purposes of strategic assessment and management process review, company (D) classifies businesses into “value increasing” and “value destroying”. Value increasing is achieved through these businesses that generate more cash for shareholders. Value destroying refers to these businesses that do not generate sufficient cash or less value creating for the company. Within the context of the VBM principles, company (D) supports these businesses that generate more cash and leases out value destroying businesses. For instance, company (D) has recently closed down some of its businesses, as they were value destroying for the group. Conversely, the company has expanded the Chemist business unit by opening more stores in new areas, as they were value-increasing businesses. The closing down of some businesses reflects an extent to which company (D) carefully learns to allocate its resources into promising markets. This example demonstrates that the strategic assessment process allows the management to choose the most favourable target markets. The integration of this type of knowledge is important since each individual business unit is eager to learn from other business units’ success or failure.

◆ **Cross-functional teamwork.**

The cross-functional teamwork is another mechanism that company (D) increasingly utilises to integrate new information into the entire work context. Company (D) reinforces organisational members to share the kind of knowledge that enhances their everyday work activities. For example, company (D) has recently established an organisational technique called the “Bulletin Board”. Bulletin board motivates organisational members to send in new ideas. This technique supports individuals to engage in face to face dialogues and to work together. It is a way through individuals can contemplate on and solve problems collectively. The bulletin board enhances individuals to combine internal knowledge with other external knowledge in order to create organisational capabilities. Business units are also encouraged to work together to achieve the general objective of the business. Each business unit should support organisational members to approach problems and solutions in terms of such an overall objective. Here, a dynamic interaction either between individuals or between departments is considered to be a basis for effective knowledge creation within the company. As a senior consultant puts it:

"The social interaction, the more social things you do, the more team relationships you'll get and people working together as a team. I see the scope of my business unit knowledge turns on how it is structured and shared among its users and producers. And that's deeply affected by the information technology

available to us and the social articulation and transmission of such knowledge".

Company (D) also exploits group meetings as a core tool for knowledge sharing. It rules a number of regular meetings between managing directors and senior managers to build shared vision and purpose. It processes new knowledge and expertise through various cross-functional teams. Not only cross-functional teams in one individual business unit but also bringing people in from elsewhere in the group. That is, company (D) promotes cross-functional teamwork across the entire group. Cross-functional teams usually meet to advise where new projects should go and what the main factors are that the management needs to consider when planning to launch a particular project. Group meetings are essential mechanisms whereby the management strengthens the knowledge integration capacity of the organisation. A group development manager explains that sharing knowledge via discussion groups helps in running a big company like this. He continues to clarify that this form of communication allows the company to take different views into consideration. He adds that these discussions create mutual trust between organisational members. Cross-functional group discussions are very beneficial if they are targeted to a particular project and if they are well organised. Cross-functional teamwork can also be expanded to incorporate external stakeholders.

As an example, company (D) has recently established a cross-functional teamwork that involves a cooperation with two big companies including 3M and Standard Photographic Supplies (SPS). The cooperation with these companies has aimed at distributing a set of products. The cross-functional team includes members from different functions such as logistics, IT, manufacturing etc. and from the three companies. The team was concerned with some products, all of which were the company's (D) own brand products manufactured by 3M or SPS. These products comprised photographic films, video-cassettes and healthcare products. The three companies constructed a network as a demand from company (D) to improve the supply process. Company (D) gained a number of advantages from this close link with the other two companies. Currently, the stock is gathered from SPS (where it is packaged) by company (D) lorries in its rolling cages and leaves directly to its warehouse. On arrival, the cages are rolled straight into the loading bays to move out to its regional warehouse. This process has considerably reduced the level of inventory and also, has eliminated the time spent by drivers waiting to unload at the warehouse. An Electronic Data Interchange (EDI) allowed company (D) to eliminate paperwork and hence, to achieve savings in terms of time and money. This example proposes that company (D) places much emphasis on networking with suppliers to create

value from sharing information. This example also illustrates the extent to which company (D) profits from extending its informative capacity outside its boundaries.

Much attention is also devoted to the cross-functional work whereby different functions are pulled together to create a unique business opportunity. Another example would be the dentistry project in which company (D) brought in health experts with their knowledge and then they talked about how the dentists work. The company also brought in experts from the beauty part of the business. Their talk was built upon a new trend in a cosmetic surgery or a cosmetic dentistry, which was developed in North America and Western Europe. The cosmetic dentistry, in general, is about providing people with white teeth or straight teeth and it has got nothing to do with the fact that their teeth are wrong. So, the company is now moving forward with offering a combination of these two provisions so as to achieve competitive advantage. This example suggests that company (D) has succeeded in combining two streams of knowledge together via teamwork to generate new business opportunities. Teamwork is thus considered to be an efficient tool that company (D) increasingly employs to promote learning. As a pharmacy training manager addresses it:

“I think things have changed recently. The company has the overview of what it wants to do to change from hierarchical and control tailorism, to autonomy involvement and commitment of staff. And it has defined the processes that it needs to do to move. And it is just at the start of that journey at the moment. And the sorts of things that it has introduced. I think it starts to match its structure to the processes that go on with the formation of business units. It starts to get people working together as teams and those teams will then learn from each others”.

◆ **People networks.**

Company (D) also supports organisational members to share knowledge via something called “people network”. People network represents a sort of group meeting in which individuals discuss a specific issue in a more open and social atmosphere. This meeting might take the form of a workshop conference or a research conference. It might also occur in an informal way at lunchtime meetings. For instance, company (D) has recently applied an internal mechanism named “lunchtime meetings”. Lunchtime meetings represent a mechanism by which teams of people meet together in one room and share information within a social framework. These teams usually discuss pertinent issues and people called it ‘Brown Bag Lunch’. These meetings give individuals a chance not only to share their experience but also to validate their information. Company (D) also provides a number of seminars that are directed to particular audiences. These seminars bring the top managers

together to think, to share, and to update their knowledge and also, to understand the overall strategies and initiatives. Executives' development seminars are common methods that company (D) employs to integrate various business areas. This discussion proposes that company (D) integrates new information into its business operations by allowing individuals to exchange their knowledge and experience.

Back to their business areas, managers are responsible for sharing these new insights with their employees. Those managers have to make sure that their business units' initiatives do not contradict the overall strategy and objectives. They utilise different communication channels to convey new insights to their employees including face to face meetings, group discussions, and electronic media. A recent development of information systems facilitates such practice. Today, a person at a single microcomputer or workstation can type in data, manipulate it, store it in a computer and send it to another location across the company. The person who receives this data can do likewise. Such a mode of communication starts to grow up and to create strategic uses of information within the entire group. It also eases the transfer of information to the whole organisation and breaks down some steps in the existing processes.

An integration of new information is also enhanced by a simple methodology that the company (D) adopts to generate new ideas. This methodology combines internal and external information together. It brings various people together to share their knowledge and to work out new ideas. Knowledge is then created when an idea is recognised and is developed into a project. So there is the information going into the ideas and then once individuals get the idea for the project, they come together and add their experience and their knowledge to the project. Those individuals aim to make a project more applicable and to test whether an idea is good or not. Once the idea is developed, the company typically will try it out. A few people will get together to test out whether the idea is good or not and to describe what the company would actually need to do to make it real. This methodology integrates information around a specific business idea. The top management supports this way of practice in two directions: (1) by creating a strong social structure that allows individuals to know what is going on, and (2) by encouraging individuals to brief each other via mail or written reports. A business development manager explains that the whole idea is that the company trusts individuals and gives them a target to work it out as a team. He confirms that this team often comes back with a number of imaginative solutions.

7.2.3 Collectively Interpreting the Information.

◆ Diagnose the problem.

Informants claim that a collective interpretation of new information is a key challenge that company (D) has to get over. They consider that for organisational learning to occur, they should identify real fundamental problems rather than dealing with symptomatic ones. They also believe that their engagement in sharing lots of knowledge for the symptomatic solutions does not equate learning. This means that the top management efforts to enhance the sharing of knowledge for drawing conclusions when suitable precedents have not been provided is very dangerous and equivocal in company (D) at present. Similarly, Glazer (1998, p 184) pointed out that problems can also arise when managers in different functional areas have very different mental models and do not appreciate or accept that there are other valid interpretations. As mentioned earlier, company (D) is managed by the principles of the value-based management. Working with case study (D) data proposes that the value-based management assumptions are ingrained in the company's routines and frames of reference and are developed based upon top management's past experience.

Business units are required to approach their business initiatives and critical decisions in the light of the value-based management principles. The overall business strategy, reward systems, promotion preferences, and resource allocation priorities reinforce this way of practice. The top management maintains and further, supports the value-based management as a base for successful financial outcomes. The value-based management also guides cooperation efforts between the different business units inside the group. It directs the communication behaviour and information flow in way that reinforces individuals to accommodate and to generate collective interpretations consistent with the commitment to the governing objective. Some participants believe that value-based management neither provides them with a clear understanding nor supports them to challenge the reasoning behind a planned action. Similarly, Dixon (1994, p 78) pointed out that we do not all have to be in total agreement in order to act in concert. We do, however, all need to understand fully the reasoning behind the proposed action, and moreover we need the opportunity to influence that reasoning. Before continuing the discussion, table 7.1 below addresses a number of factors that participants think they prohibit them to make collective interpretations from new information.

Table 7.1: Factors Prohibit the Collective Interpretation of Information within Company (D) Taking into Consideration Participants' Perspectives.

Characteristics	Description	Participants' View
♦ Ad-hoc knowledge work.	Some managers claim that company (D) does not have a conscious view of how to develop a collective knowledge base.	As a professional service director puts it: "I'm not aware that the company has a conscious view that it is got a knowledge structure. It thinks of maintaining and developing knowledge for its own right. I think we generally rely upon the existing knowledge of individuals and pull them together on a required basis".
♦ Intensive reliance on external consultants.	Company (D) often depends on external management consultancy companies to come in and to develop new understanding either on how it should change the management of the business or indeed look at a change in its strategy.	As a senior consultant puts it: "Internally we still rely on external consultants to do quite a lot of the work of business opportunities. And clearly external consultants bring in many skills but they don't bring in- they don't have access to the internal knowledge that people have internally. So there's still a fair bit, a fair way to go in that".
♦ Put hard value in or simply forget it.	Individuals are not allowed to approach new business ideas outside the value-based management boundaries. If a person can not put hard value or a measure of economic profits into a new proposal, he will not be able to prioritise it. That means, value-driven ideas are often supported within that context.	As a formulation manager puts it: "Senior managers are, as I was saying through financial incentives, trying to get people to come up with new ideas, value generating ideas. But that's quite different from getting people to share their own knowledge and share that across a broad group of people outside of any of the formal processes that generate those new ideas. So the active participative knowledge sharing isn't being encouraged widely".
♦ Less reflection on a past experience.	Participants claim that company (D) does not allow them to look at what they have done before and learn from that. Therefore, they tend to repeat the same mistakes or waste their time sharing inadequate information or reinventing the wheels.	As store manager puts it: "I think that we as a company, maybe retailers generally, are like this historically, we act and then we look for the next action and we don't tend to take time out to reflect and learn in cells, learning cycles. We just stay in the action zone at the top all the time, we never go into reflection or working out, why things happened and then work out a new way of doing them. I think we as a company needs to take a little bit more time out to reflect on why things work and don't work and then learning from them".

♦ Moving key people around various business areas causes a knowledge gap.	Company (D) often moves key managers around various business areas in the group to make sure that those who understand the overall business strategy are in the key positions within the group. However, this results in a knowledge gap because tacit knowledge is not transferred yet.	As a formulation manager puts it: "We haven't got any strategy to make tacit knowledge more communicable... And we do recognise that that's something that we desperately need. We need that feed back and we need it all correlating. But yeah, you've dead right what we need is somewhere to document all that knowledge so that we can actually go back, but that has never been done".
♦ Peers competition often impedes knowledge sharing.	Some informants claim that the culture of energetic knowledge sharing is not present in company (D). They view that there is still an old culture of "if you share your knowledge you're devaluing yourself in the company".	As a business development manager puts it: "... And by definition your colleagues are also your competitors internally "peers competition". So that sort of thing discourage potentially people like myself from willing to share my knowledge and my experience with my colleagues. Because if I don't do it I'm likely to be valued greater than them if we shrink the department again and keep my job".
♦ Less encouragement for experimentation.	Some participants argue that company (D) does not support them to experiment with new ideas. They claim that some business activities are suspended due to lack of resources. That is, the company does not allocate spare resources for these activities.	As a senior consultant puts it: "I think one of the problems we have got is we do not investigate new areas enough. We don't put trials out. We don't generate sort of R&D experimentation in new competitive areas. We tend or we have tended to put most of our efforts into improving the existing system".
♦ Prefer to react or to catch up.	Some managers view that the current management system is conservative in terms of taking new ideas into marketplace. They believe that this sort of practice often prevents the business to capitalise on the first mover advantage. It also discourages them to think up new ideas.	As a head of system support puts it (here, he's explaining how a senior manager has responded to his proposal): "I don't think so, I think we should wait and I don't see Tesco or Sainsbury's rushing to do this. So why should we? A clear message that we, at senior level, like to follow, not to lead which is disappointing".
♦ Competition amongst business units limits the knowledge sharing capability of the whole company.	Some participants view that the existing management system allows individual business units to treat each other as competitors. This often results in slowing down the learning capability of the whole group.	As a head of communication puts it: "...There's competition between the different business units and maybe competition is good. But there's something the competition is almost for its own sake rather than for the whole company as that's slowly changing...You can force people to have meetings but if they don't really want to be there, if the hearts aren't really about it, then neither are their minds".

♦ Lack of information technology back up.	Some managers view that the information technology department tends to develop operational type systems and not penetrating into a new area of handling and managing information. That is, it tends to work on what the business wants it to do, rather than working on things that the business may should want it to do.	As a store manager puts it: "...Meetings I suppose are our main ways of communication. But again they not backed up the information net. Therefore, that's a big gap we have. We're trying to improve it. But not that one we are doing conservative efforts to improve it. So there's still disadvantage".
♦ Less recognition for knowledge work.	Some participants claim that company (D) still unable to match skill level and knowledge with its initiatives to generate new opportunities. They view that the company needs to flex the skill within retail, pharmacy, optics, and manufacturing into either current or future needs.	As a pharmacy training manager puts it: "... I think again there needs to be more recognition of the importance of technical knowledge as a core competence. The motivation falls as that we feel that we're not valued and that needs to be addressed very quickly".
♦ Ambiguous organisation for collective learning activities.	Some managers view that although knowledge is vital to the business development, company (D) does not organise its use. That means, a large number of knowledge projects often takes place by chance than by any sort of formal organisation.	As a business development manager puts it: "... It was really almost by chance in that it was using knowledge that I've got. That I just knew because I'd sat with somebody at tea break and I knew what they were doing on another range and she was just happening to mention to me. We were just discussing what was going on and she was just 'oh we've got to do this'. And she didn't even know that it was possible for us to do things that quickly if we really wanted to, but it was almost by chance because we don't have these formal organisation of learning..."
♦ Mistakes are not welcome.	Some informants claim that company (D) does not let in mistakes and allows individuals to learn from them.	As a group development manager puts it: "... If you didn't do some of those things- didn't give information, trusting, and get people to admit to their mistakes and learn from that then it seems to be that will not encourage a superior learning".

◆ Where the dilemma lies.

Table 7.1 above proposes that collective interpretation of new information does not often take place in company (D). New information is often read via the value-based management methodology, which serves as an organisational dominant logic. Other types of information are likely to be ignored. Structured information about sales, productivity, and hard analysis of structured data are the areas where most current resources reach. Participants feel that company (D) does not invest enough resources in encouraging anecdotal learning where something is tried, new ideas are generated and have good results. No clear mechanisms are being used to support collective interpretation inside the company. Similarly, Cohen (1998, p 35) pointed out that ideas about ecological or emotionally aware approaches to business are foreign to firms whose leaders still consider the word *knowledge* uncomfortably intellectual or vague. The value-based management as the dominant logic for management restrains collective learning by narrowing down the knowledge sharing capability of the company. Likewise, Bettis and Prahalad (1995) argued that organisations used to apply a dominant logic acting as information filter that converges organisational thoroughness. That results in management's attention being focused only on data, which is regarded relevant by the dominant logic. Other data are largely ignored. Working with case study (D) data, it is made obvious that the management often utilises the analytical procedures of the value-based management to filter new information. The filtered information is then integrated into an existing system, strategy, expectations and permanent behaviours of the group. Figure 7.3 below explains such a process.

Figure 7.3: The Collective Interpretation of Information within Company (D).

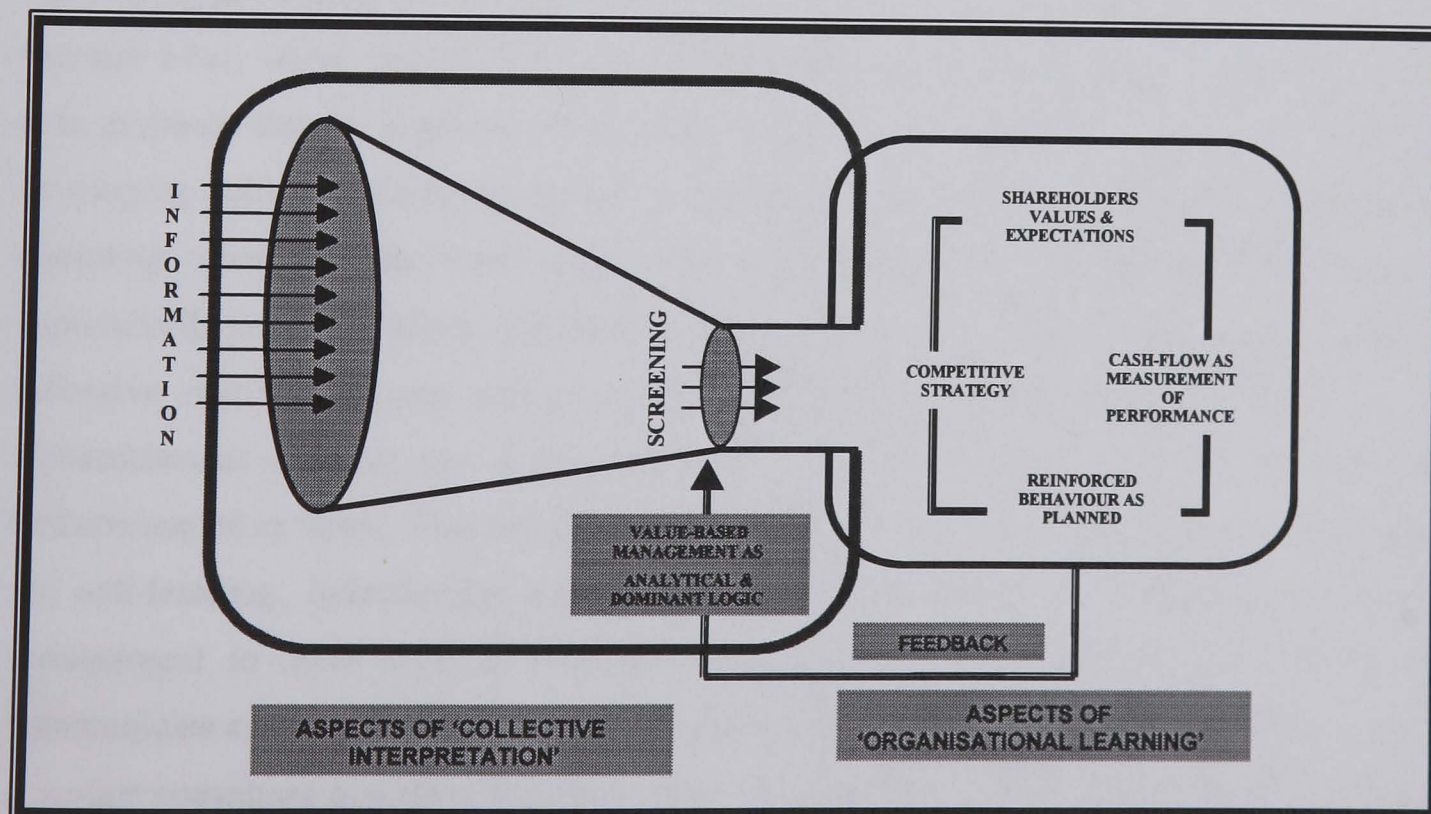


Figure 7.3 above demonstrates that company (D) places much emphasis on processing the type of information that supports achieving its overall objectives. It also illustrates that such information is filtered via the value-based management principles. That means, information projects that support maximising shareholders' values and expectations (as governing objectives) or enhance applying the strategic planning and assessment initiatives are well recognised in company (D). Similarly, Snell and James (1994) pointed out that the difficulty in achieving a pluralist culture might be merely a practical issue; that under pressure, which almost every organisation would feel itself to be, it is easier to work with those whose values and approaches match your own. In view of that, it can be argued that while company (D) acquires internal and external information from multiple sources, reading information through value-based management as a dominant logic prevents collective learning to happen. That is, such dominant logic is incapable of widening the knowledge sharing capability of the organisation. While rich information proposes to make the interpretation process much easier, this does not appear to be the case in company (D). As Bettis and Prahalad (1995, p 7) pointed out what is seen instead are information rich but interpretation poor systems.

7.2.4 Authority to Take Responsible Action based on Interpreted Meanings.

Because organisational members should respond and react to information considering the value-based management principles, an existing approach of management produces a work context limited in learning. Providing such thoughtfulness is predominant in the entire group, organisational members are likely to become limited learners. Brown and Duguid (1998) pointed out that successful organisational synthesis of knowledge requires discovering knowledge as it emerges in practice. This does not often happen in company (D) because what, when, and where to do what are predetermined. Reading of case study (D) data proposes that an implementation of the value-based management approach results in developing individuals that are skilled in following a defensive reasoning. Such defensive reasoning often prevents them either from being creative or from taking risks through approaching proactive ideas. Similarly, Argyris (1996, p 5) claimed that organisational defensive routines are any action, policies, or practices that prevent the experience of embarrassment or threat, and at the same time prevent discovery and reduce the cause of embarrassment or threat. That means, defensive routines not only limit learning but also they are anti-learning. Interviewees were displeased with the flow of information from top management to other areas in the entire organisation. They view that an inability to communicate and to participate in sharing important information prohibits learning to occur. A senior consultant describes that the quality of learning can be improved if the company really retains the possibility of people thinking. He continues to explain that bringing people

together in a search conference dedicated to what the output will be, often impedes collective learning.

Managing via the value-based management requires the management to create an overall objective and then, to establish an organisational commitment to it. This often discourages business units from either managing or changing its operations in view of their own initiatives. The value-based management also constrains business units' ambition to act based upon their own performance criteria. A store manager explains that because individuals have no hand in identifying the problem, their ability to make decisions related to this problem or obtaining information necessary to make them is ineffective. By relying on a top-down approach, the value-based management failed not only to produce flexible interpretations of information but also to foster taking action based upon shared mindsets. Similarly, Raelin (1994) claimed that if a pattern conventionally used to respond to a given situation no longer fits because of changes in the situation, it would be far too difficult for an individual to reframe the situation online and perhaps change the incompetent pattern. Interviewees actually believe that an existing management of the business does not allow them to challenge ideas or decisions or think outside the central system. As a head of communication puts it:

“... It's very easy when you share knowledge to draw conclusions, which haven't actually been given to you and that's very dangerous in this company. So you interpret what people are saying rather than just listen and challenging them. Again you can get everybody in the room saying that 'yes lets share information'. But if you start to just draw inferences from people- what people are saying and don't actually challenge them and say 'is this what we really mean'- you can all end up sharing information but coming out with the wrong results...”

An existing management system has a little room for multiple perspectives, perspectives that are not subject to predetermined rules of that system. The top management often reinforces the sort of actions that strengthen an accomplishment of the group overall objectives. Reading case study (D) data also suggests that individuals are less motivated to learn and reflect on previous successes or failures. Rather, they should target their efforts and capacities to create more cash flow to the business. This might revert to the top management commitment to generate financial profits for shareholders. This way of practice has created a conflict between the central management and other business units in the organisation. For instance, the management of the Chemist business unit struggles to manage its business operations via a visionary statement rather than through the value-based management assumptions. Nevertheless, the top management pays no attention to such request. The top

management really ignores the fact that assumptions are assumptions and that challenging these assumptions is beneficial to the management of the business. Table 7.2 below presents a number of factors that participants think they limit their capacity to act based on shared meanings

Table 7.2: Factors Limit Acting on Shared Meanings in Company (D).

Characteristics	Description	Participants' Perspective
♦ The absence of feedback system holds down recalling collective knowledge.	Some managers claim that there are organisational blocks, which prohibit collective learning. These blocks often face them when they produce new plans for a certain area or a particular product. They view that the absence of feedback system often causes these problems.	As a formulation manager puts it: "A lot of products that we've developed maybe about 10 years ago, there wasn't a market for them. But there is now. And the problem is there is no way of, we've no way of capturing those ideas and keeping them. And what you tend to do is sort of 'I remember Dave was working on that 10 years ago'. And so we go off and see Dave..."
♦ Sharing knowledge for symptomatic solutions "more or less hits and miss".	Some participants view that the search conferences that company (D) runs are not delivering effective decisions. They believe that these conferences do not often pull relevant experiences together.	As a senior consultant puts it: "Again I think most of our use of internal knowledge is driven by personal contact, search conferences and things like that. So that can be a bit 'hit and miss' if you don't get the right people going to search conferences, you don't get the best mix of people for those conferences, then you are not likely to get the best internal knowledge available.
♦ Knowledge carriers are often unknown to the top management.	Some informants view that the top management does not necessarily know who possesses the best knowledge in each business area. This often results in choosing the wrong mix of individuals for a specific task.	As a head of system support puts it: "If we wanted to understand what we should do about financial services, I don't think we have an understanding of what people do we currently have in the business, have come from other companies that might have existing knowledge in financial service".
♦ Senior managers' attitude is less encouraging.	Some informants claim that senior managers' pattern of practice significantly influences individuals' commitment to share learning.	As a business development manager puts it: "... If the senior managers are seen to want to talk to people- get feedback from people and listen to people, give people ideas, encourage them to develop themselves, coaching all that sort of thing. If the senior managers are doing it all the rest will follow but if the senior managers are giving the lip service. So they're talking about it but not doing it, the rest of the organisation won't follow..."

♦ Spread out “blame culture”.	Some managers believe that the spread of blame culture within the business often stops people’s enthusiasm to learning. They view that company (D) should change the blame culture to allow for effective learning.	As a head of communication puts it: “...If somebody has an idea tries it and it doesn’t work, there’s not penalty for that. If people can see that they can use their imagination, they can try ideas. But they’re not going to be penalised for it...”
♦ Compensation plans are process-driven.	Some informants claim that financial rewards that were given to those that develop new ideas are process driven, rather than continuous. This, in turn, discourages people to innovate and to take risks.	As a formulation manager puts it: “... One of a fairly junior member of my team raised an issue with senior manager during his visit to us. That they felt was important and it was about- basically we’d done a lot of work, we spent two years working on a range for a category and our category sees no sale of this. And my colleague was saying that she found this very demotivating after spending two years and the sales weren’t coming through to our category. And the director just turned to her and said ‘but you get paid don’t you’. And so no body asked any question after that, nobody raised any more issue because when your director just obviously doesn’t want to hear the problems it just stops any dialogue like that happening...”
♦ Symbolic failure doesn’t exist.	Some managers claim that company (D) needs to back off from believing that each project has to be successful. They view that this can only happen if the company support new ideas and accept mistakes.	As a senior consultant puts it: “... We’ve told, you know, that’s, you can take risks but no one ever seen someone who’s failed and actually you almost need someone dare. I say it, you need a symbolic failure and for people say, he doesn’t get sacked because dentistry doesn’t work. He actually is a man to be applauded because he actually had the bottle...”
♦ Spread out of a top-down culture that pleases the boss.	Some informants argue that for organisational learning to happen, company (D) has to create a more open culture at the lower part of the business. That means, it has to eliminate the top-down mentality culture that pleases the boss.	As a store manager puts it: “... It’s all part of the culture. So it’s a part of that culture of getting people to want to change, it’s also creating those structures, organisational structures which allows people to talk and share their information and I think the two go hand in hand...”

7.3 The way by Which Company (D) Assimilates and employs Knowledge to Sustain and to Strengthen a Competitive Advantage, as Managers Perceive it.

This section places much emphasis on the way by which company (D) assimilates and exploits collective knowledge to generate commercial ends. This section mainly explores the way by which company (D) employs internal knowledge to generate competitive outcomes. The above discussion suggests that the basic steps of the organisational learning cycle do not entirely take place inside company (D). Nevertheless reading case study (D) data reveals that company (D) increasingly depends on internal knowledge to generate competitive ends. This study comes across a set of instances that demonstrate the company's capacity to generate competitive outcomes from knowledge. For example, company (D) has recently accomplished a number of successful knowledge projects that strengthen its competitiveness. Four major knowledge projects are widely exploited. *First*, company (D) has launched a new optic store design in 1987. This project represents the UK's second largest retail optics chain. *Second*, company (D) has implemented a portfolio planning approach in 1996. This approach was established by the contract manufacturing business unit. *Third*, company (D) has launched a loyalty advantage card in 1997. This project was come about as a result of an effective cooperation between the chemist business unit and optician business unit. *Fourth*, company (D) has launched a number of Internet-based services in 1999. This project has enabled the company to distribute some of its products via the Internet. These four projects were launched as a response to the growing competition in the retail industry and also, in a response to the future shape of competition.

Historically, company (D) has been very competitive. It has survived 120 years as one of the top 30 UK companies. So it was doing something right for a long period of time. Part of that success was down to the fact that it was operating in markets where it was the only really big player and no one else was really muscling in. However, the groceries' outlets have eroded company's (D) competitive advantage as they have suddenly woken up to the fact that there is lots of money to be made in toiletries, health, and beauty market products. For the last two decades, company (D) faced with a very competitive environment, because a large number of competitors entered into its market niche. Company (D) has thus conducted a number of incremental changes to comply with business challenges. It started to develop new business opportunities, to take new products into markets, to put pressures on suppliers to reduce their margins, and to create a system that allows it to generate more money. It has also designed the group centre action programme in 1996. This programme is a potential for

those members had in their heads and the knowledge that they had access to from their own organisational departments. A professional service director describes that the company draws advantage by outlining an overall picture through utilising different vectors of people knowledge and experience to come up with something very unique. The above discussion reveals that company (D) increasingly recognises the importance of exploiting knowledge and sharing of that knowledge to strengthen its competitive position. As a head of communication puts it:

“There are attempts to explicitly use that knowledge to drive out new opportunities. I was on a conference in February this year for senior people across the group with the corporate development people who are responsible for new ventures and developments. And part of that was to encourage us explicitly to look for new development opportunities and ideas.... I talk to other organisations, other optical companies and they say ‘well you know, you’re producing good profits at the moment, how you are doing that. And I always emphasise well a lot of the reason we’re doing this because of things we did 5 or 6 years ago. It’s something they can’t hope to compete with quickly. This does encourage us to come up with more imaginative scenarios to generate value”.

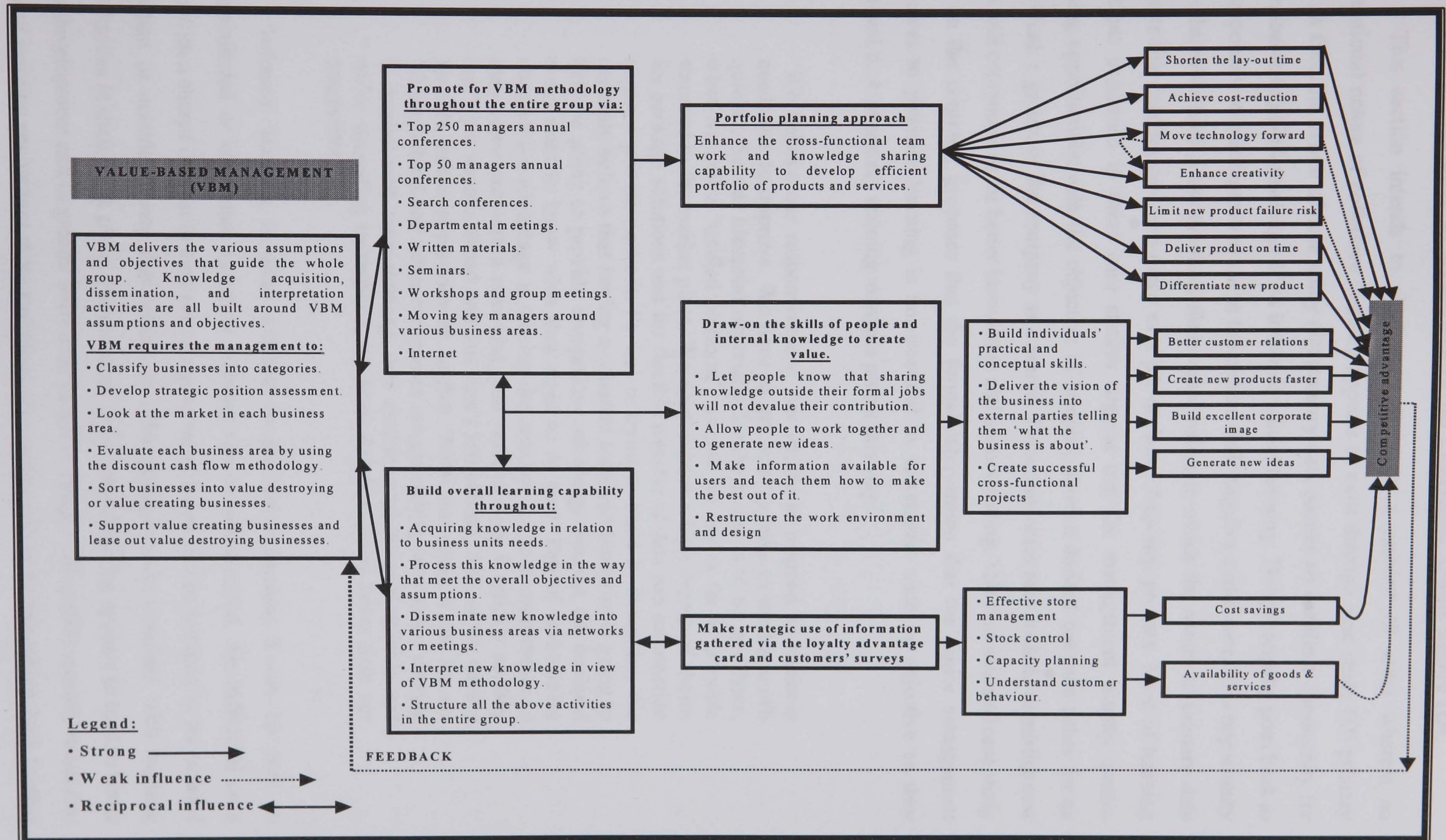
Figure 7.4 below conceptualises the way by which company (D) assimilates and exploits collective knowledge to strengthen and to sustain a competitive advantage in view of managers’ perspectives.

a learning organisation. Knowledge work constitutes one of the most recent interests at company (D). Company (D) sought to develop the technical skills of organisational members and to come up with new ideas and opportunities, which have to come about as a result of utilising its internal knowledge and research capabilities. The way, in which such knowledge is created and enhanced, is in a large part, about the creation of an environment within which such knowledge is valued and has room to grow. Company (D) started to support such orientation by looking at different industries and different scenarios, and pulling them together into something different. One aspect of that change might be the necessity for globalisation.

Working with case study (D) data suggests that company (D) promotes organisational learning via the value-based management. Company (D) communicates the VBM methodology into the whole organisation through cross-functional teams, search conferences, group meetings, written materials, seminars, an Internet, and by moving managers around key business areas. A successful application of internal knowledge is considered to be an establishment of a portfolio planning approach that accelerates the speed with which new products can be developed. Such an approach has shortened the layout time of a product development process and reduced its total cost. Not only, this approach has allowed the company to move its technology forward but also it strengthens its capability. The portfolio planning approach has also helped the company to differentiate some of its products from those of its rivals and to deliver these products on time. A business development manager explains that the company as a whole learns best when their product and development people have time to step back periodically and gain perspectives on what they are doing. He emphasises that knowledge becomes the base for new products and services creation and also, a primary source for sustainable competitive advantage.

Company (D) derives huge amounts of customer information from a loyalty advantage card. An effective utilisation of such information allows the company to manage its stores, to monitor its stock, to design its production capacity, and to understand customers' purchasing patterns and behaviours in various locations of its market. An effective use of this information also enhances business units' capabilities to establish a basis for a business success and to meet customers' needs. Based-on internal knowledge, the opticians business unit has launched a new store, which is intended as a new presentation or a new type of store in terms of its design. That was largely done internally by drawing on the skills of a number of organisational members. Those members work alongside their normal jobs, not seconded out of their normal job, to work on the creation of this new project or this new image. This project was quite effective in terms of drawing together the knowledge that

Figure 7.4: The way by which company (D) assimilates and utilises knowledge to sustain and to strengthen a competitive advantage, as its managers view it.



7.4 The Informal Side of Organisational Learning: Case Study (D).

This section intends to shed more light on a number of areas wherein an unintentional nature of collective learning appears to exist through case study (D) primary data. In fact, the nature of case study (D) primary data creates an excellent opportunity for this research to gain knowledge of an informal trait of learning. This principally goes back to the propensity of participants to put in the picture their negative experience. This opportunity was seldom to find in the previous three case studies in which the nature of primary data suggests that leaning can take place as a pre-designed four-step process. Most of learning situations explained in these case studies suggest that the management usually creates learning opportunities with the objective of bringing about a desired outcome either for an individual, a group, or the company as a whole. These outcomes may include acquiring new skills and competences, or better knowledge and understanding. The discussion of case study (D), on the contrary, proposes that the formal intervention that the senior management conceives to promote learning is unsuccessful to accomplish such an objective as they described it. A pharmacy training manager puts it this way:

“We believe our responsiveness, our ability to respond to business needs has to improve. We have to get new systems to market much quicker. So our blueprint especially for the stores is to try and have, what we call a ‘unified platform’, so that we are as far as possible standard in the market place. We need to have a high degree of choice for package solutions and for flexible transfer of data and information across a private network. So we’re trying to build in flexibility. We certainly believe that having a coherent technical blueprint is going to help, is going to provide competitive advantage because the business areas want to know what they need to do next. Part of maintaining competitive advantage is closing the window on your competitors so they come out with a new idea, you need to copy it quickly so they don’t get streaks ahead and you don’t left behind. And so we need a flexible technical platform to do that. We’re not doing it and we are falling behind and other companies are generating new ideas, coming to market with new services, new systems and doing it quickly and we’re struggling to respond, let alone develop things faster than our competitors”.

Informal learning is often difficult to pin down because it can be seen as unpremeditated or incidental. Informal learning can be self-directed. An individual or a group with a shared interest or concern can generate it. It can also be initiated by an external consultant or outside agency that wishes to offer organisational members with learning opportunities in their work place. Participation in informal learning appears to lead to better group development and to greater individual progress. Eraut *et al.* (1998) recently noted that informal learning encourages more ambitious goal setting and more risk-taking, both leading

to further learning usually relating to the ability to execute a task or successfully perform a role. Here, an internal culture should support participation and flexibility in carrying out roles. Davies and Easterby-Smith (1984, p 181), for instance, noted that a developing culture is a critical support for managers who are prepared to develop new ways of dealing with problems and who do not see themselves being bound entirely by existing rules and procedures. This proposes that when learning takes place in workplace, the organisation is considered to be the defining environment for learning. A store manager points out that the way in which internal knowledge came about and where enhanced in the company, in large part about the creation of new environment within which that knowledge is valued and has room to grow. He goes on to explain that this can be done by creating an environment wherein the expertise of the individuals is allowed to grow and wherein professional skills is continuously developed. He proceeds to add that this doing could be potentially useful but it is yet a little bit ad hoc and it depends on the individuals and communities concerned.

A professional service director claims that the issue from his own perspective is one of a misunderstanding that is based around the understanding of projects and benefits flow. He goes one to identify that the kind of problem that he thinks they have sometimes is when they go to their customer system base and attempt to define the areas that they need to address or that he thinks such system maybe enable them to address. He moves on to explain that quite often they do not receive a clear answer and that is partly, he thinks, because there is lack of full understanding of what the cost base of the business is and what the opportunities are and this is certainly not expressed in the review of such a system. He proceeds to assert that there is still a tendency for collective learning activities to be driven in the organisation towards the sort of projects that yield more tangible benefits. Informants interviewed in this study indeed believe that the current information systems do not allow them either to have a two-way dialogue or to share knowledge throughout the whole organisation. They do view that these information systems are presumed to support them accelerating the creation of an internal learning environment; a learning environment in which effective communication can take place. They do expect to maintain a considerable support from the IT department in terms of how such a department can facilitate and enable the presence of learning processes. A business development manager addresses such an ambition in the following way:

“I think IS can help us with that two-way dialogue. It could help us with sharing information because so many different projects happen around the company and in big companies what you tend to find is you start on a new project and someone will say ‘oh yes you know in fact BCM did some work on this two months ago. They did £200,000

worth of consultancy in here doing loads of work and by then you just get to, hold on to work yourself. So I believe there is a role that is have almost through a system of shared drives but there's almost like a shared library that I could go into. Everyone says-when you finish your project you say-you actually log into a library system which says I've done some work on chiropody, here are some key things I worked on. If someone else ever comes along and says well I want to look at the foot care market maybe you should sell shoes. They could actually tap in almost like a library system- a very basic library system. You could actually put in feet or foot care and it would come up with 'yeah there's work done on chiropody over here you need to talk to this department or this person. So IS could work like that- it doesn't work like that currently. So there's two-way dialogue we need to put in place. And part of that comes down to IS. I think that IT people talk different language. It's a big department and from a customer perspective that's one of, it's going to be extremely hard to find the right person to talk to. A lot of high tech 'gobbildy gook' is spoken. Because it's a large department it is very hard to work out whom you should be going to and again you talk to one person and another person and another person. And in the end it beats you down and you say 'IS can't help'. So there's something about if you want to create a learning organisation. It about not just creating the culture that allows talking but also creating the organisational support that allows people to talk and the right people to talk to. Of course there's a long way we could go. I think we are only scratching the surface".

This example demonstrates that if the company is unable to create the organisational systems where organisational members can talk, then it will not get the adequate support. IS function is an area that the company needs actually to improve on. Not only does IS function lack to consider the information needs of diverse business units but also it does not adopt a proactive approach to anticipate these needs. A store manager explains that IS is a mechanism wherein people being able to talk across business units and through business functions. He goes on to suggest that this creates an opportunity for people to identify what has been done and they can physically see that work and can build upon that work. He then moves on to contend that IS will never replace the face to face kind of an interaction. This goes back to the fact that in person interaction is an essential part of individuals' day-to-day working life. Dixon (2000, p 5) suggests that 'technology has to be married with face-to-face interaction to create the most effective systems; one does not replace the other, although clearly one can greatly enhance the other'. Somewhere else, a formulation manager stated that individuals involved in group-based interaction were in a better position to acquire a wide range of skills and personal attributes. She moved on to add that these individuals were able to transfer their knowledge, via social contact, beyond the group. She also noted that individuals who participated in a group work were better placed to improve their social and communication skills and to become effective team players. She indeed explains that the company starts to offer training courses for everybody to start to share the knowledge

around. Mocker and Spear (1982) pointed out that it is the individual's perception of, and interaction with, that environment that give meaning to experience. Within such a context, individuals that had an area of expertise often intended to exchange such expertise with other organisational members. This in turn suggests that in person contact and relationship have been found considered particularly significant in the development of common knowledge. However, it must be acknowledged that such a standpoint only represents a new trend inside company (D) and as a result, much work is needed to revolutionise the old culture. A store manager explains such a new move in the following way:

"I think things have altered, the company started to work at cultural change and it's done that through trying to develop shared vision and purpose and what the company ambition is and by the managing director starting to have meetings with senior managers to start say- this is what I see as the vision but, and purpose but, I'm open to your views, this is only the first proposal and there are these processes that are involved and further meetings and discussion and dialogue about where they should go. So we have structural change, we have a little culture change and we have reviewing of processes to get that in. This is then percolating down through the organisation and means that there are more meetings and that, more open meetings about how-what individuals have used in developing the business up. And whether though within those meetings there is enough reflection on learning and trying to get those blocks of learning into a system so they can be used in future. I see some big things starting about we're only at the beginning of the journey and that there's some difficulties at the moment in getting to where we want to get to. And there is a frustration in the company at the moment that the change in culture is not happening at the lower hierarchical structure, that applies hierarchy doesn't it? We have also defined some behaviours that managers should exhibit. They are called 'DIRS ALERT culture'. Dirs alert is a numonic for demanding innovative, responsible, supportive, listening, energetic, risk taking; I've forgotten the other one. We're actually up here listening theme based. These are listed within our strategy document and that strategy document covers structure change, business initiatives, culture change, and behaviours. So the fact that we have a strategy document that I think a year and a bit old, and that has been documented, starts where it really gets at putting processes in for learning."

In searching for features of informal learning, Fordham (1979) noted that 'informal learning is life, environment and learners oriented. It is diversified in content and method; it is built on learner participation'. Such a definition suggests that informal learning takes place outside a dedicated learning environment and it derives from the activities of individuals and groups. These activities may involve learning by doing, observing, and interacting with others. The management may intentionally support these activities via a number of ways. These may include discussion, talks and presentations, information, advice and guidance.

These activities can occur in a place where individuals gather in the course of their everyday working life. That is to say, informal learning is often collective rather than an individual process, with people coming together as a group and seeking ways of responding to key issues and problems. In such a situation, relationships are considered to be the nexus of organisational life and the medium through which managers succeed (Marsick & Watkins, 1990). Building effective relationships are important since a leadership necessarily involves relationships with others. It must be recognised that the work place is not necessarily a defining factor to explain a nature of learning, that is, some informal learning can take place inside proper work environment while some formal learning can occur in an informal setting. In addition, it must be acknowledged that it is difficult to make a clear distinction between formal and informal learning contained by company (D) because there is often some crossover between the two. A head of system supports puts it this way:

“On the subject of our knowledge structure, we have two things: one informal and two formal knowledge structures. The company has quite a strong social environment, a lot of people know each other, the rate of professionalism in most areas is fairly low in compared with our competitors and therefore people get to know things and get to know what’s going on and form fairly strong social structure. I think that informal element is probably quite important. In terms of the formal element, my view is that most of it done through briefing mostly written, briefing me on email. In a certainly the most formal end of things so that we get monthly report we get to read other people reports that explicitly has written in it. From my department point of view, we provide a section called ‘innovation and learning’, it’s still at an early stage. But that’s intended to be a matter that you pull out what we learnt. A lot of things that we do are in my community, in the information systems community across the group we have meetings, again informal structures to share the knowledge we have.”

Informal learning often happens outside a dedicated learning environment and that emerges from the activities and interests of individuals or groups, but which may not be recognised as learning. Because such an informal learning is often unplanned and incidental it is neither described nor recognised as learning. Foley (1999) suggests that informal learning is frequently tacit or implicit, embedded as it is in the routine activities of the organisation. Such an informal learning can lead to the development of organisational skills, social skills and communication skills as well as to a deeper understanding of group knowledge. A recent study has found that a significant proportion of workplace learning is informal and unintentional and embedded in the work situation. Eraut *et al.* (1998, p 26-7) put it this way: ‘our research shows how strongly informal learning is situated in the work itself and in its social and organisational context. Learning at work more often results as a by-product of the pursuit of work goals than from the pursuit of learning goals per se’. A

business development manager points out that because the company has launched a learning scheme very recently knowledge was really shared both formally and informally. He goes on to explain that the absence of a structured way of learning often forces people to be informal. He proceeds to add that two major things feed the current knowledge structure: one is observing external trends that are happening outside the group and the second is actually speaking to people. He moves on to describe that a part of this knowledge may also arise from bringing external experts inside the company. He also states that there is actually a culture that says 'yes we will talk because we believe that there is a common good and this comes down to informally going out and talking to people and identifying them'. He then clarifies that the positive thing in the company currently is a willingness to talk and a willingness to share information and it was not that long ago people used to keep their cards very close to chest and not talk at all. This discussion suggests that new knowledge can almost be generated through informal links. Marsick and Watkins (1990, p 217) suggested that 'groups allow multiple perspectives to be brought to bear on a situation, so that managers can alter their interpretations of a situation'. A formulation manager puts it this way:

"I do actually think that there is a very good culture of sharing knowledge within the development function and I'm not quite sure why but the information is shared very readily. May be because people like to be asked and when they are asked, they will give the information. But more of a problem is that for new people particularly it's very difficult to know where to get that information from, because there isn't a database. It's still very much relies on a network of knowing what has been going on and older people being there. And as now we're starting to see the turnover much more. So the time scales are starting to get much shorter and we're trying to address all these things. I think a very important asset of our business unit is the knowledge that it actually has even though the knowledge isn't organised that well. So we've really got to look at organising that knowledge so it's a lot more accessible to all. So in doing, rather than knowing individuals knowledge, it's an organisational knowledge. But directing that knowledge where it is best used really. I think we need to have a much clearer direction of what we're going to be and stick to that direction".

Informal learning helps individuals to generate and to share knowledge in an open environment and hence, these knowledge-related behaviours must be facilitated. Marsick and Watkins (1990, p 217) pointed out that 'in the process of seeking answers to collective problems, other people learn along with the person initiating the action'. Within such a context, individuals often come together as a group, seeking ways of responding to emerging issues and problems. These individuals should also reflect on their collective learning. A formulation manager explains that they started having cross-functional meetings, like the

skin care team formulators and the details formulators and bath care formulators get together once a month with representatives to share experiences that have happened and report is always written towards the end of these meetings. She goes on to identify that it is something that they set up themselves because as they went from a development department into categories so the skin care category, the dental category, and the hair care category. She also points out that individuals involved were very well aware that there was a lot of information that was not being passed around and they were getting sort of, rather than having a development silo start having their category silos. She indeed adds that sharing information would do that and that was been very useful. Company (D) starts to break down its old culture and that is going to be from very formal things where the company brings experts together on a fairly regular basis to say 'this is an issue what can we do about it? Or it could be addressed purely from informal working together where someone from the Optician business unit can phone up somebody else from the Chemist business unit who actually feels he can talk to someone and share information with this someone. A professional service director explains it this way:

“As an example, we opened two stores-one new store actually, which was intended to be a new presentation, a new type of store, a new design. And that was largely done internally with drawing on the skills of a number of people across the business. So the project team was created for people working along side their normal jobs, so not seconded out of their normal jobs, to work on the creation of this new project, this new image. And that was quite effective in terms of drawing together the knowledge that those people had in their head and the knowledge that they had access to from their own organisational department. Informally, quite a lot of that happens I think quite successfully in the way that it is-quite specific to our own business unit and as such allows quite well for personal networking. However, mitigates against that little bit is the functional silos that exist that would cause people to be perhaps a bit reluctant to really push those ideas forward. But until senior executives recognise that our key competence is that and not pull all the efforts in customers services, lowering our costs and things like that. Then I think at the moment that's why we're floundering so badly ”.

Informal learning can actually generate some valuable social and economic outcomes. That is to say, informal learning can result in important benefits not only for the individual but also for the company as a whole. In order to do so, however, the top management must provide appropriate information, encouragement, and supportive mechanisms. One way to achieve that is to provide both formal and informal learning opportunities at the same site. The management also needs to establish strategies that promote learning throughout the various organisational levels in the group. In addition, it has to offer a number of support mechanisms that help organisational members to resolve any

obstacles that might have prevented them from learning within the existing formal management system of value-based management. In such a case, the management must provide the support as well as recognition needed for those involved. Such a sort of support should help to eliminate barriers to participation in learning activities. Key individuals must offer such a sort of encouragement and support. Otherwise, these learning activities can be disregarding and intimidating. A business development manager points out that the problem is in the past no one knew where they should send new ideas to and a person would give an idea to a manager and it would slowly go around the house and this person would never hear anything again and so it is very hard to motivate that person to offer another ideas. A professional service director puts it in the following way:

“I think we have a problem at the moment, because there is a feeling that even though we’re encouraged to come up with new ideas for competitive advantage, the general constraints that are put upon us to achieve the foremost targets. I think the culture is important because I don’t think it’s visible enough that new ideas and new initiatives are retained, are worked on, and are valued. And so we go through a process, people generate a lot of good ideas then there are as I say financial which stop any of those being taken forward. So it seems, and for every sort of round of the process, it left out, it says generated ideas, the culture quickly becomes well what’s the point, they never get taken forward-is it just a waste of time? What happen to them? So I think the fact that we don’t have a visible knowledge management mechanism that captures and records these things, that people are aware of and can see the visible tangible results of contributing to that, stops them participating with that in the future. People just become a little bit switched off that their ideas are never taken forward. And it is almost more perception than reality. If people perceive that their ideas are being valued and captured, maintained, reviewed through some mechanism they will feel more inclined to contribute. But if all they see is they do loads of work, here’s some new ideas, short term budget cuts prevents from taking any of those forward then they’re going to stop working, aren’t they?”

Informants consider the existing hierarchical structure as one significant factor that contributes to such a problem. In such a structure, senior executives often control interpretation of information. A business development manager points out that the size of the organisation and the bureaucracy, that they have wrapped themselves in, slow down individuals’ ability to do things faster. He goes on to explain that it is probably quicker to go outside the company to get the information, especially in new markets. He states that he believes that there is another angle that they can develop partnership and networks with outside people who are willing to work with the company. He also adds that these external networks can help in testing new ideas out and hence, they will be good filters to the business. He then confirms that these networks allow them to move things faster into the

market place but they do lack from not having some internal experts in some markets that they might wish to participate in the future. He proceeds to claim that the company pulls people together both formally and informally to help in carrying out new projects. That means, the company often employs some external people in order to understand what the market is about and whether new ideas work in that market place. The principles of collective learning are now widely accepted in company (D). A number of informal learning and training activities increasingly appear to attract a large segment of employees. Within such learning activities, these employees often interact as members of a social group. Such a social meeting can be far more effective than any formal mechanism in encouraging employees to widely share knowledge and to begin a learning pathway. A store manager acknowledges such a shift in the following way:

“I mean we’ve got quite a, if you look at the overall strategy, I think we spend a considerable time reflecting on our learning of our successes and weaknesses and indeed learning of our competitors’ successes and weaknesses and studying them. Both studying them- our competitors- to work out what they do better than us and could we do that but also to understand them and to say well if this is what they have been doing-what are they likely be doing. And in that scenario what will be the situation for our company. So we do spend a considerable amount of time reflecting on our learning and knowledge now. Again I think historically we didn’t. But I think we are now getting to a stage where our strategic planning is pretty respected. I think again, I think there’s a long way to go. I think that’s the key with a learning organisation-that you never stop learning”.

Informants claim that such a social nature of learning has been ignored for a long time inside company (D). A formulation manager points out that employees do not get feedback, whether any idea were accepted or not and so, they do not know how successful that is. Coffield (1998) noted that the debate about lifelong learning has become dominated by education and training providers despite the fact that informal learning is the main form of learning for many people. In responding to the emerging competitive challenges, the senior management intends to embark on a number of informal learning initiatives so that group learning can be enabled and facilitated inside the company. Dfee (1998) puts it this way: ‘learning contributes to social cohesion and fosters a sense of belonging, responsibility and identity. In communities affected by rapid economic change and industrial restructuring, learning builds local capacity to respond to this change’. A store manager points out that the company utilises internal knowledge quite well in terms of the market within which it operates. He proceeds to explain that the skill level of employees is relatively high compared with main competitors. He adds that the company often keeps staff for longer and also, it

respects the skills and knowledge that those staff brings together. He also notes that the company currently lacks an explicit framework that enables them to identify new opportunities and to use their skills and knowledge in entering new markets or in generating new ideas. That is, there is quite lot of drive towards more explicit ways of sharing knowledge and of using and applying that knowledge. There is also a nervousness with the company on narrow area of skill within retail, pharmacy, optics and manufacturing; the areas where the company strong at. The company also maintains an obvious shortcoming in flexing those skills and knowledge either current or the future. Within the context of generating new products and ideas, the speed of response to customers' needs is also seen as another significant limitation. A pharmacy training manager explains it this way:

“We’re good at developing products, we’re good at developing new products from our history of manufacturing, contract manufacturing, product design and innovation and all of our pharmaceutical heritage, we’re good at developing products quickly. Whether we’re quick enough to meet where we mainly fall down is the speed of response to customers need back and that’s where we don’t have that feedback system. So if you had that you could then get somebody who works on the sun shop area feeding back to center to say ‘customers are saying this product doesn’t quite work for them because either the consistency isn’t right or the product lip doesn’t work, or it keeps breaking can you change that or improve it. Or they might saying customers are asking do we have this product and we haven’t got it to sell them, shall we consider producing our own’. That’s sort of ideas. So faster is the thing. I think we have the capability to develop products but we might not have the capability to develop them faster. And that might be because, not because we can’t, haven’t got the processes to do it but more we don’t pick up what customers need quick enough. That could be it I think.”

Although the management starts to encourage informal learning initiatives there is still a huge gap between the actual support made available to formal learning and that provided to informal learning. This may go back partly to the difficulty of predicting the exact amount of informal learning that takes place in the workplace setting and partly to the utter diversity of informal learning. Such diversity emerges from the fact that everybody exercises informal learning in the workplace. A senior consultant points out that in a head to head interaction situation, a resolution comes about as a result of two persons, having different perspectives on a problem that both had an interest in solving it. He goes on to explain that learning has been incorporated within the day-to-day activities of the whole department, despite, this may not have been initially planned or desired. He also adds that this learning occurs because individuals are always granted an opportunity to have a say in the nature and implementation of the activities undertaken. Elsewhere, a business development manager claims that to get people to embark on a learning trail the company

has to remove practical and structural barriers that prevent individuals from sharing learning far and wide. He goes on to identify that exerting a pull on subjects of common concern is an important aspect in widening collective participation in learning. He consequently proposes that without this kind of thought there would be little possibility of widening participation in learning activities among people. The following example touches more closely on some areas wherein such concern resides. As a business development manager puts it:

“There is always on going cycle of improving what we’ve got. But yes in photographing we’re investing in developing film processing for the new ‘Advantage Photo System Cameras’. So we’re making that investment before a lot of other competitors. So we’re grabbing that growing market of photo processing. But to some degree I look on that as doing business as usual, just improving what we’ve got the same as we might reformulate shampoos or toothpaste or whatever and package, market them slightly differently. But that’s very much business as usual, I think. Going into completely new area like health insurance and travel insurance is where I draw the distinction that I don’t think we’re doing it and we’re not competing particularly well with competitors. Again I don’t see the company getting into that level of competitive positioning. Senior executives are saying; if you can come up with ideas that will generate value and they get on prioritised list for the future. Then you will get some financial rewards for doing that. Again is that, I would draw the difference between that being incentivised, if you like sort of ‘one off’ process activity or asking people to go away and think about it and come up with some ideas as very much a process driven method rather than continuous. So I think as people as senior managers go through their targets, have we generated new ideas to get on this list for the future because that’s going to drive my personal financial rewards, they will probably run that in their departments as a workshop. Let’s generate some ideas, what’s worth. Let’s go and measure these things, let’s get ourselves a list and submit that sort of consideration. So I think even having incentivised people to think about new competitive ideas, it will still be process driven. I don’t think it is a part of the way we work. I don’t think it’s continuous because if that particular financial reward mechanism was removed in a subsequent year, I’m sure that activity would just stop”.

Reflecting on prior learning, especially learning that has taken place in formal environment and context, is rarely exercised inside company (D). The absence of a clear scheme to learning and the lack of cross-departmental cooperation in knowledge work, and lack of information and guidance were cited as obstacles to collective learning. In addition, informants interviewed in this study do acknowledge that there is not a clear organisational mechanism in place that can be employed to disseminate good practice and information throughout the whole company group. The value of reflecting on prior learning and experience is that it gives individuals greater understanding of their learning and increases their commitment. Jessup (1995) suggested that individuals should be encouraged to manage

Senior executives also need to recognise that the learning organisations is not what can the company do differently it is what can people do differently. A business development manager points out that ‘he thinks this company is big enough for him to do his own bit of networking before anyone else gets upset and says ‘hey he should not be doing that. In fact they would probably say that is a really good idea’. He goes on to explain that in such a case, the directions come from the top but lower levels in the structure deliver the real energy and drive. Informal learning starts to grow up inside company (D). The company has recently put into place a number of different mechanisms to strengthen informal learning. It has intended to encourage people to move around key business areas so that they can be better placed to establish a network of informal relationships. It has also established a new mechanism entitled ‘lunch time meetings’ to allow for an effective social interaction and for an effective sharing of information. A professional service director puts it in the following way:

“One of the things we do, which I think is good we are now moving people in the company a lot more. So you’re actually breaking down some of those silos by bringing in people from other silos. And so no longer do you sit in the beauty business unit and say that those people in health care we don’t want to talk to them. Because that’s actually one of your team in beauty now actually comes from health care and actually they’re not as bad as you thought they were. So there’s a very positive way of moving people around the company, rather than just letting them build their career up through their silos. Bringing people in developing their questioning of strategic skills and then pushing them into other departments and what you’ve effectively got then is an informal networking taking place. We rely on informal things. An example in our team, we have a lunch every month, where we talk about a pertinent issue and we call it ‘Brown Bag Lunch’. Where we sit in one of these rooms, everyone brings his/her sandwiches and we talk about an issue, just have working lunch. What we actually do is invite people from else where in the business to come and join in. Now that’s very informal and I would argue that maybe more departments like ours need to do what’re doing and have these informal lunches”.

Overall, the above discussion touches on a number of themes that shape the nature of informal learning that takes place inside company (D). The discussion mainly addresses a number of areas wherein a tension between formal and informal learning often exists. This tension to a degree resides in the absence of an organisational culture that supports listening to people and indeed, enabling more innovative and team based approach to learning. The existing work methodology reinforces people to place much emphasis on cost control initiatives. This focus on cost in turn creates an internal work environment in which people are more tasks focused and indeed, are conical to short term gains. Within such an environment people are also less encouraged to widely share information and instead, they tend to keep information to themselves because knowledge is seen as a source of power. The

their own learning experiences, to recognise where they start from, their preferred styles and modes of learning, and the time and opportunities they have for learning. Here, again the role of key individuals is an important means of helping them to achieve this. Marsick and Watkins (1990, p 220) pointed out that ‘success frequently depended on the assistance of other people whom they consulted- facilitators, mentors, colleagues, family or friends- who were able to give them feedback that opened them up to another point of view’. The examination of case study (D) suggests that provision that tailored to the interest and requirements of individuals can have a greater impact on these individuals than the achievement of pre-determined targets set by the upper management. That means, individuals often need to learn what is relevant and important to them. Such an encouragement should not just be available when individuals are beginning a new learning scheme. Instead, it should be provided continually together with other necessary supports. Ashton (1998, p 67) pointed out that ‘for learning to continue, people need support such as feedback and encouragement of others’. Within such a context, group or peer support is seen as a vital component in encouraging learning continuation. Some informants interviewed during this study considered the lack of genuine cooperation between various people and departments to be one of the most significant problems that prevent the emergence of an effective learning environment inside the organisation. As a senior consultant puts it:

“So, if somebody says ‘let’s think of some new idea for alternative shopping’, we’ll run search conferences, get people from different parts of the company to come together and extract- I suppose you would say a sub set of knowledge at that point in time. But it is not something that is maintained as a continuous process. As a higher level I think we will often use external companies, management consultancy companies to come in and develop our understanding of either how we should change the management of the business or indeed look at a change in the company strategy. So I don’t think there is a formal living structure to knowledge in the company at all and I don’t say any attempts being made to retain knowledge of key individuals. If they just move on, they leave, that’s lost. There are no mechanisms for capturing, recording and sharing that sort of learning. What I would class as unstructured information. So, we’re not particularly good at that. Any peer level comparison to see who is doing things very well, is done on financial results basis and not any of the intangible aspects of how they are dealing with customers or whether they’re doing flexible stuffing, any thing like that which produces a good economic results is lost. It’s not captured at all and we’re not currently being encouraged to do that as a specific task”.

The other thing that company (D) needs to be seen doing, as an organisation is to accept failure and to accept that mistakes have to be made. Such notion emerges from the fact that an innovative company can not get things done right a hundred percent of the time.

discussion also reveals that the social interaction is far more important in creating learning relationships because it allows people to trust each other and they are then more able to share their knowledge. The leaders of the company must also be willing to help those people understand themselves and from that understanding of themselves they might then share some of their assumptions as well as their knowledge in relation to what is going on. From informants' perspective, the existing information technology is not supporting the cross learning between the various parts of the organisation. The discussion also reveals that the existing management system does not enable the diverse business units to maintain an appropriate speed of responsiveness to external changes. As Marsick and Watkins (1990, p 218) it: 'all things being equal, it seems easier for people to interpret a situation using existing mental framework. People thus fit the data to their own preconceptions rather than develop new mental frameworks; they see the routine in an event rather than the non-routine and interpret it accordingly'. The company yet tends to follow "the best and last" approach rather than first and not bad at all sort of business. The discussion also asserts that informants desperately need a feedback mechanism that helps them to learn from past situations whether these situations were considered to be successes or failures.

7.5 Conclusions.

The case study above demonstrates the way in which company (D) approaches organisational learning in practice. The chapter discussed three main parts. The first part of the chapter is devoted not only to examine the organisational learning practices that are being practised in company (D) but also to place these practices in the organisational learning cycle. Reading of case study (D) suggests that the company has unequally invested in each step of the organisational learning cycle. The first step, the widespread generation of information, is strongly supported by company (D) both internally and externally. Externally, company (D) has devoted concerted efforts to gathering information from multiple sources. These sources include a market feedback system, customer surveys, a loyalty advantage card, and government reports and health statistics. Internally, company (D) has put into practice a number of mechanisms to generate internal information and ideas. These mechanisms include seminars, workshops, search conferences, cross-functional teamwork, and a product portfolio approach.

The second step of the organisational learning cycle, integrating new information into the organisational context, has reflected a commitment to a wide sharing of information. This has been achieved not only through group commitment to the value-based management but also through linking information into the strategic planning process and decision-making structure. Cross-functional team projects have considered to be valuable tools that company

(D) utilises to integrate information into its overall business context. The third step, collectively interpreting information, has been a sign of a crucial problem that company (D) has to recover from. The discussion has also addressed some of the challenges that slow down the collective interpretation of information inside company (D). An existing culture and a top-down approach for knowledge transfer have been identified as significant barriers for collective interpretation. The fourth step, authority to take responsible action on interpreted meanings, was where the company had to change. The discussion has made clear that collective learning would not take place unless company (D) helps organisational members not only to challenge an existing reasoning but also to reduce their defensive routines.

Drawing on interviewees' perspectives, the second part of the chapter is dedicated to conceptualising the contribution of knowledge work into maintaining long-term business success within company (D). This part of the chapter has shown how company (D) assimilates and exploits collective knowledge to generate commercial ends. Working with data suggests that the company increasingly recognises an importance of knowledge to create commercial values in specific business areas. While organisational learning does not completely happen in company (D), some business areas manage to create long-term value from knowledge work. The most obvious examples of this incorporate a new design of optics stores, the use of a loyalty advantage card, and an implementation of a portfolio planning approach. A store manager describes that no competitor is yet strong enough or in a position to copy everything we do because what we are doing is constructing an offer that has got high entry rates.

The third part of the chapter is dedicated to examine the nature of informal learning inside company (D). It is made clear through the discussion of such an issue that there is often a tension between the formal doings of learning and these of informal learning. The investigation indeed touches upon a number of areas in which there is a voice of resistance aligned with formal learning initiative. The discussion of this particular section acknowledges the fact that offering formal and informal learning opportunities at the same site is far more effective mechanism to produce internal learning relationships. These learning relationships are often based upon a social network of relationships in which individuals can communicate and share knowledge throughout the whole organisation. This in turn demonstrates the notion that for an organisation to learn, both formal and informal learning activities must be facilitated and encouraged.

CHAPTER EIGHT

INTERPRETATION OF THE CASE STUDIES

Chapter Eight

Interpretation of the Case Studies

8.1 Introduction.

This chapter reports on the results obtained from four case studies. The chapter sets out to explain the different ways through which four companies have implemented the basic steps of the organisational learning cycle. In so doing, the chapter intends not only to encompass the different elements of the organisational learning cycle but also to compare them across four organisational contexts. This comparison mainly explores the various mechanisms that these companies utilise to acquire internal and external information. It also touches on the different techniques that these companies make use of to integrate new information into the overall work context. This comparison also discovers the diverse activities that these companies put into effect to make a collective interpretation from new information. Besides, it examines the many methods that these companies adopt to act based on a shared meaning. This comparison is further extended to incorporate the various processes that these companies put into action to accelerate the capability for organisational learning. In the course of this discussion, the different features that describe each company's approach to organisational learning will be explored. The use of Shrivastava's (1983) two-dimension model also helps in widening such a comparison to incorporating the various features that describe each company's approach to organisational learning

In addition, a proposed framework for managing organisational learning will be discussed. This framework is an attempt to strengthen the basic conceptual perspectives that reside in Dixon's (1994) organisational learning cycle. Not only does this framework benefit from a number of successful learning practices that were carried out in the four case studies but also it relates these practices to the literature. Accordingly, the intention is to achieve three main goals from interpreting the case studies. *First*, to not only explain but also compare collective learning in terms of the four-stage cycle across four different organisational contexts. *Second*, to touch on the main features that describe each company's approach to organisational learning. *Third*, to draw a framework that derives benefit from a number of organisational learning issues raised by participants.

8.2 The Basic Steps of the Organisational Learning Cycle: A Comparison.

This section of the chapter sheds more light on reading the results obtained from four case studies in terms of the organisational learning cycle. The main notion that emerges

from Dixon's (1994) model is that organisational learning does not occur unless organisations actively support and interconnect the four stages of the organisational learning cycle. That means, organisational learning will be lost if the four stages of the organisational learning cycle are separated (Dixon, 1994). The interpretation of four case studies brings forth meanings based on the organisational learning practices that are explored in each company. However, a certain part of an organisation may engage in a specific task that resides in the organisational learning cycle. By reading case study (D), for instance, it is found that the marketing department was responsible for collecting external information. In contrast, the product and development division's task was to generate new opportunities from internal information. Similarly, company (A) appoints the task of capturing external information to its marketing research specialists. However, company (A) makes the generation of internal information and ideas a responsibility of each organisational member. Alternatively, company (B) provides organisational members with an opportunity not only to generate internal information but also to capture external information. An individual's contribution to the organisational knowledge base is considered one important criterion that company (B) adopts when making compensation and promotion decisions.

Table 8.1 below demonstrates that company (A) implements many mechanisms to generate external and internal information. On the one hand, company (A) acquires external information through hiring a number of marketing research specialists who are responsible for collecting and analysing information about market changes, competition, and new government initiatives and legislation. Company (A) also encourages organisational members to capture external information by accessing a number of information networks and through a direct interface with financial advisers that work for the company. On the other hand, company (A) has put into practice a number of processes in order to generate internal knowledge and ideas. These processes require organisational members to search various internal information sources, to draw lessons from an existing expertise, and to benefit from fact-finding documents. Internal knowledge can also be developed through a direct interaction between professionals from various departments and in different occasions including seminars, workshops, discussion groups and committees. Organisational members communicate and exchange information via a variety of communication channels. In like manner, company (D) acquires external information through a number of tools including market surveys, business studies, and a loyalty advantage card. Company (D) often employs external consultants that provide information and views regarding key business issues. The information technology department also plays a critical role in fulfilling business units' information needs.

Table 8.1: The Different Elements of the Organisational Learning Cycle Model in Four Case Studies.

STAGES OF THE ORGANISATIONAL LEARNING CYCLE MODEL	<u>Case Study (A):</u> Promoting for learning via participative teamwork	<u>Case Study (B):</u> Promoting for learning via knowledge-seeking culture context	<u>Case Study (C):</u> Promoting for learning via establishing the basis of mutual understanding between top management and lower operational levels	<u>Case Study (D):</u> Promoting for learning via the formal management system
Step (1): Widespread Generation of Information.	<p><u>EXTERNAL:</u></p> <ul style="list-style-type: none"> • Survey competition and new changes of the financial service market. • Access information on new legislation and government initiatives, which may affect the business or clients' financial situations. • Acquire relevant information through accessing a number of information networks about the industry. • Gather customers' information via electronic information networks. • Generate information through discussion groups and a direct interface with external financial advisers, as new issues emerge. <p><u>INTERNAL:</u></p> <ul style="list-style-type: none"> • Draw new information and ideas from an existing expertise and also, from a variety of fact-finding documents. • Allow professionals to generate new information and ideas via a cross-functional teamwork and through their direct interface. • Elicit new information through attending internal workshops, seminars, discussion groups and committees. 	<p><u>EXTERNAL:</u></p> <ul style="list-style-type: none"> • Acquire market, industry and companies information via a "Business Radar" mechanism. • Gather information from clients via direct interface and surveys. • Collect market information considering its potential use. • Capture information on leading companies' best practices and benchmarking via a global-best practice knowledge base. • Acquire information via various knowledge networks such as: <ul style="list-style-type: none"> □ American Productivity and Quality Centre (APQC). □ European Foundation for Quality Management (EFQM). □ Knowledge Management Network (KMN). • Utilise external expertise via partnering with other companies such as JP Edwards, BAAN, etc. • Access key competitors' information and draw lessons from it. <p><u>INTERNAL:</u></p> <ul style="list-style-type: none"> • Share knowledge and best practices throughout the various worldwide offices. • Generate knowledge through searching clients' information. 	<p><u>EXTERNAL:</u></p> <ul style="list-style-type: none"> • Acquire new information via a "business information and research division". • Capture update information on suppliers and dealers. • Survey customers' needs and listen to their suggestions. • A sales team gathers market information via a number of "Clinic Service Campaigns". • Acquire information constantly on competitors. • Obtain relevant and reliable local statistics and government reports. • Maintain upgraded information on external partners and affiliates. • Capture information through trade literature, fairs, and exhibitions. <p><u>INTERNAL:</u></p> <ul style="list-style-type: none"> • Utilise internal historical and past information to generate new ideas. • Think-up and create new information through teamwork. • Develop new information by utilising internal training sessions, conferences, seminars, and cross-functional business studies. • Obtain information via a feedback mechanism. • Generate new information via a number of orientation, 	<p><u>EXTERNAL:</u></p> <ul style="list-style-type: none"> • Capture customers' information via a market feedback system. • Acquire market information via surveys and comment cards. • Gather customers' information via a loyalty advantage card. • Capture information on competitors via markets analysts. • Collect other relevant external information including information on National Health Services, statistics, pharmacists, environment agencies, and government reports. <p><u>INTERNAL:</u></p> <ul style="list-style-type: none"> • Generate information via seminars and training sessions. • Encourage business units to make the best out of people experience and knowledge. • Spread important information into various business areas via meetings, periodical business reviews, seminars, workshops, conferences, and Internet. • Develop internal ideas by an association with management consulting companies. • Encourage business units to work together via joint projects for idea creation.

	<ul style="list-style-type: none"> Utilise various communication channels to widespread information throughout the entire organisation. 	<ul style="list-style-type: none"> Acquire information via a "Research Manager". Develop information tailored to specific area via a "Premium Community of Practice". Help professionals to generate new knowledge via a "Search Agent" and a "Knowledge Space". 	<p>introductory, and focused courses, and also, via a "Distinguished Work Group" or DWG methodology.</p>	<ul style="list-style-type: none"> Generate new ideas and test them out via a "business development division". Utilise the strategic position assessment to evaluate business ideas. Spread out information via a cross-functional teamwork. Accelerate a new product development process via a product portfolio planning approach.
<p>Step (2): Integrating New/Local Information into an Organisational Context.</p>	<ul style="list-style-type: none"> Foster harmony by connecting new information into a broad organisational context. Utilise open communication to facilitate information sharing between and across different divisions and work groups. Utilise DEL (Development Event Log) system to connect professionals and line managers along with clients. Reward people who continuously report accurate information in their fact-findings documents. Inform things that were transferred rightly or wrongly and allow people to learn from that. Define the ways through which information can put to use. Raise people's awareness about the importance of effective information transfer. Report common mistakes to people at a branch level and seek their help. Utilise existing information technology to link the entire group together. 	<ul style="list-style-type: none"> Bring people together to share knowledge via a "Premium Community of Practice" methodology. Link new information according to situational circumstances. Utilise computer-based techniques to integrate new information (e.g., Gateway Talk Centre). Update information via networks (e.g., Tax Data Retrieval System or TDRS). Focus on group work to integrate new information in view of specific organisational tasks. Incorporate employees that face similar problems or have similar interests in "Virtual Communities of Practice". Emphasise the one-firm concept in the everyday work activities. Motivate organisational members to convert new information into a global-best practices knowledge base. 	<ul style="list-style-type: none"> Integrate internal information with external information to better understand a business process. Diffuse relevant information out to various users by using Lotus-Notes databases, IIMS and FIMS. Rotate managers around key business areas to create a sort of system interconnectivity. Transform information in the light of an internal work context. Integrate local suppliers and dealers' information bases with internal information systems. Build Kanban system based on an existing information and spread out best practices throughout the entire organisation. Establish the basic foundations that encourage organisational members to share their experience when applying a new system. Integrate information in view of decision-making information needs. Run various cross-functional meetings to enhance organisational members to share information around important business issues. 	<ul style="list-style-type: none"> Integrate new information around value-based management principles. Establish commitment to an overall objective. Integrate information into a strategic planning process and a decision-making structure. Establish the principles by which the group should be managed. Support businesses that create value for shareholders. Integrate information via cross-functional discussion groups. Allow individuals to generate new ideas via a "Bulletin Board" and a search conference. Encourage individuals to contemplate on and solve problems collectively. Create a social environment for knowledge sharing or what is called a "Brown Bag Lunch Talk". Establish effective information networks with suppliers. Encourage business units' leaders to share important knowledge with their subordinates. Integrate information around new ideas development.

<p>Step (3): Collectively Interpreting the information.</p>	<ul style="list-style-type: none"> • Build-up an overall understanding regarding new work methodologies. • Enhance individuals' contribution to facilitate an implementation of a new work methodology. • Connect salesforce into an online information network and offer help. • Raise individuals' awareness about various business and strategic issues. • Diffuse information out to the whole organisation with relevant explanations and provide a room for feedback and comments. • Acquire information in the light of certain local clients' needs. • Ensure flexibility and speediness of information transfer to lessen the impact of an organisational size and a hierarchical structure. • Be aware that skills' development occurs through practice. • Create common meanings throughout running different group meetings at various operational levels including a branch level. 	<ul style="list-style-type: none"> • Encourage professionals to work together and to make collective meanings from new information via a "Think-Tank" approach. • Promote for these practices via training sessions and Internet-based knowledge systems. • Allow individuals to develop shared meanings via a "Company Online" methodology. • Give people time out to search for business solutions. • Encourage individuals to put successful knowledge work in the knowledge system and recheck information validity before use. • Support collective solutions throughout: <ul style="list-style-type: none"> <input type="checkbox"/> Creating knowledge sharing processes and an organisational culture. <input type="checkbox"/> Introducing a knowledge management system on the Intranet. <input type="checkbox"/> Providing supportive learning materials (e.g., library, web sites etc.). <input type="checkbox"/> Eliminating barriers to teamwork. <input type="checkbox"/> Recognising team contribution. 	<ul style="list-style-type: none"> • Encourage individuals to share knowledge via teamworking. • Ensure that individuals understand the overall business objectives. • Allow employees to participate in formulating a business strategy and in making major decisions. • Incorporate individuals and make them a part of "what is going on". • Utilise a Consolidated Procurement Organisation or CPO to develop a common understanding of new information. • Derive meanings from using an Integrated Information Management System or IIMS. • Value each one's contribution when building up a collective meaning. • Run departmental meetings to put up individuals' awareness. • Encourage individuals to innovate and to operate differently via a Continuous Improvement Process (CIP) approach. • Exchange experience and best practices with a number of worldwide affiliates and partners. 	<ul style="list-style-type: none"> • Individuals and business units are required to approach decisions via a value-based management farsightedness. • Work with those that their values match yours. • Factors prohibit making collective interpretation from new information incorporate: <ul style="list-style-type: none"> <input type="checkbox"/> Running knowledge work on ad-hoc basis. <input type="checkbox"/> An intensive reliance on external management consulting companies <input type="checkbox"/> Less reflection on past experience. <input type="checkbox"/> Moving managers around various business units often leaves a knowledge gap. <input type="checkbox"/> Peer competition restrains a knowledge sharing capability. <input type="checkbox"/> Less encouragement for experimentation. <input type="checkbox"/> Management by reaction. <input type="checkbox"/> An unhealthy competition between various business units. <input type="checkbox"/> An inefficient use of information technology. <input type="checkbox"/> Less recognition of knowledge work. <input type="checkbox"/> An ambiguous organisation for learning activities. <input type="checkbox"/> Mistakes are unforgivable.
<p>Step (4): Authority to Take Responsible Action Based on the Interpreted Meaning.</p>	<ul style="list-style-type: none"> • Act according to 'what people agreed upon'. • Use a corrective mannerism with clients. • Encompass knowledgeable people in committees and in a group work. • Take an action based on interpreting clients' information and share that meaning with them. • Regularly contact other peers to confirm a meaning. 	<ul style="list-style-type: none"> • Bring all relevant factors together to efficiently diagnose a problem. • Acquire governing values to advocate your position before clients. • Gain credibility to take an action based on sharing a set of standard operational values. • Continuously reflect on previous actions. • Act according to previously approved and documented work 	<ul style="list-style-type: none"> • Empower individuals to act collectively via a "Prime Objective Scheme". • Compensate organisational members that act according to an accepted meaning (e.g., merit scheme). • Link a reward scheme to an individual performance. • Upward outstanding employees throughout an organisational structure. 	<ul style="list-style-type: none"> • Respond and act in the light of the value-based management principles. • Such predominant awareness creates individuals that are skilled in following a defensive reasoning. • Individuals are not encouraged to think outside the formal work methodology or to challenge it. • Factors prohibit taking an action based on a shared meaning incorporate:

	<ul style="list-style-type: none"> Reward those who share and subject their knowledge and experience to other members in the organisation. 	<p>practices.</p> <ul style="list-style-type: none"> A key part of a professional job is to deliberately match an action to a client's business needs. Legitimise the way through which actions can be taken and communicated. Value knowledge sharing through a "Performance Month Reward Scheme". Develop individuals' skills via a continuous training and hence, they will be better placed to serve clients. 	<ul style="list-style-type: none"> Highlight cross-functional work, communication, team spirit, and knowledgeability as core values for the business. Promote for the above values in top management meetings. Create an open atmosphere for knowledge sharing via a flat organisational structure. Reinforce learning culture via training sessions. Create culture that supports teamworking. Highlight the top management commitment and support. 	<ul style="list-style-type: none"> <input type="checkbox"/> The absence of a feedback system to recall collective knowledge. <input type="checkbox"/> Knowledge carriers are almost unknown to the top management. <input type="checkbox"/> Sharing knowledge often happens for symptomatic solutions. <input type="checkbox"/> Senior managers' attitudes are less encouraging. <input type="checkbox"/> Spread out of a "Blame Culture". <input type="checkbox"/> Reward systems are process-driven. <input type="checkbox"/> Mistrust of senior managers' words of mouth. <input type="checkbox"/> Widespread of a top-down culture that pleases the boss.
Ways to Speed-up the Organisational Learning Cycle	<ul style="list-style-type: none"> Boundary-spanning units: The company employs marketing research professionals in order to scan relevant external information that may have a direct impact on the business prospect. After that, those professionals interpret this information and transform it straightforward to all regional and local managers. Local managers should, in turn, consider this information when they deal with local clients. 'Peers-contact': Peer contact is a continual methodology that professionals follow not only to share knowledge and insights but also to confirm a meaning through direct contact. 'Call-knowledge': Call knowledge seeks to fill knowledge gaps that organisational members have in certain areas and hence, it strengthens them to reach to the appropriate level of knowing and professionalism. 	<ul style="list-style-type: none"> Work-out process: The company adopts a workout process wherein members of a community of practice or of a joint project work together and go through a process of brainstorming to resolve a specific problem. Knowledge-space: The knowledge space methodology allows professionals to share knowledge and experience all over the world based on using advanced information technology tools. On-line electronic notice board: The company has developed organisational mechanism called the "Company Online Electronic Board", which allows professionals to share knowledge on similar work or particular issues via the Internet. 'Think Tanks': A think tank refers to a team of professionals that often sits together in a room in order to search certain ideas or problems through a process of brainstorming. 	<ul style="list-style-type: none"> Continuous Improvement Process (CIP): The CIP approach that the company currently applies magnifies individuals' enthusiasm to learn and to share that learning. The prime objective scheme. The prime objective scheme allows the company to naturalise the strategic planning process through setting out realistic objectives and through profiting from present and past knowledge. It also helps organisational members to reflect on previous situations and to draw lessons from them. 	<ul style="list-style-type: none"> Strategic search conferences: The company runs top 50 and top 250 management annual conferences to encourage managers to share knowledge and insights around key strategic issues. Not only do they presumably share their insights about the future initiatives of the business but also they work together to make them happen. Informal meetings: Lunchtimes meetings or "Brown-Bag Lunch Meetings" are another way the company started to apply to encourage organisational members to share knowledge and insights in a social and informal environment.

It often outspreads business units' information space by providing them with hard and soft information, by supporting multiple users' views on information, by pulling relevant items of information together, and by allowing information users to explore a variety of information patterns. In company (D), internal information can also be generated via electronic networks and a cross-functional teamwork, and also, by motivating organisational members to exchange information in different search conferences. Company (B), in like manner, develops many forms through which internal and external information can be generated. Externally, the company has established a 'business radar' to capture update external information. Company (B) has also developed a global best-practices knowledge base to acquire information on the subject of benchmarking and international leading companies' best practices. Moreover, company (B) encourages professionals to access a number of external information networks not only to capture operational information but also to come up to competitors' information. Company (B) has developed an information network called "CEO online" in order to share information with clients concerning various business issues. Company (B) has also created a number of tools that empower professionals' awareness and capabilities to generate new ideas. These tools incorporate a global best-practices knowledge base, a number of virtual communities of practice, and a research manager database.

Table 8.1 also demonstrates that the four companies follow a variety of methodologies to integrate new information into the overall organisational context. Company (C) utilises information systems to integrate information into the entire work context. It also integrates information in relation to a decision-making information needs. The direct interface between top management and various operational levels facilitates such integration. In contrast, company (A) disseminates new information in the way that strengthens such information to flow from a central management to the entire organisation in a consistent manner and hence, productive decisions can be made. Besides, company (A) extensively exploits discussion groups to integrate different bits of information together. Moreover, the company has put into effect a mechanism called "Development Event-Log" (or DEL) to integrate information in relation to a 'sales situation context' in which professionals, line managers, and clients share that information. Company (A) also encourages organisational members to report accurate information in their fact-findings documents. Line managers often access this information and therefore, this information serves as the base for a potential personal development. A Line manager usually discusses common mistakes with organisational members in order to help them to overcome these mistakes. Not only, does such work methodology create a climate for mutual trust between professionals and

managers but it also strengthens organisational members to share important information around business issues.

Alternatively, company (D) transfers new information in view of business units' information needs. Business units are interconnected via a number of information systems that facilitate the dissemination, manipulation, and storage of information. Although such methodology has recently been implemented in company (D) it is already beginning to evolve and to create strategic applications from information in the group. This way of practice helps organisational members to share information about a variety of business issues that involve the company. By disseminating information and by integrating it into the overall business context, company (D) seeks to enhance business units' commitment and efforts to achieve the overall objectives of the group. Company (D) has put into practice a number of methods to integrate new information into the whole organisational context. These methods include attendance at and participation in the top 50 and top 250 management annual conferences, internal seminars, workshops, and team projects. The company, however, limits information sharing outside the context of the formal management system. That is, an integration of information into the organisational context sets out to improve an existing management system. The company, thus, starts to break down barriers to flexible information integration not only by encouraging informal communication between and within business units but also by enhancing teamwork.

By contrast, company (B) extensively utilises a premium community of practice mechanism to integrate information in view of industry or business functions needs. Company (B) has implemented a number of computer-based techniques to facilitate an integration of information into the worldwide business context. It strengthens such orientation by allocating enough resources and by providing organisational members with a variety of training opportunities to update their skills in order to cope with new information technology. This way of practice intends to interconnect the whole company electronically as one-firm. For instance, the global best-practices knowledge base allows the various worldwide offices to work together and to share knowledge as one firm, wherever their geographical locations are. Organisational members are encouraged to transfer their individual knowledge and insights into this global knowledge base. Company (B) places great value on an individual's contribution into the worldwide business context- a business context that allows the entire company to grow up constantly as one firm. Both existing media of communication and information technology infrastructure facilitate this way of practice.

Table 8.1 above suggests that the four companies adopt different techniques to make collective interpretation from new information. Because of the changing nature of an existing work methodology and an importance of implementing unified work methods throughout the entire organisation, company (A) considers the participation of organisational members in making a collective interpretation from information as an essential element for generating common understanding. Company (A) creates a work environment in which organisational members are encouraged to make collective meanings from information. Organisational members are linked together via an online information network that helps them not only to comprehend important business issues but also to put their own perspectives in. This way of practice is often strengthened through discussion groups and via a number of training courses that the company runs at both local and national levels. The creation of collective meanings, which guide actions, is enormously important for the nature of company (A) business process. The company has recently commenced some structural changes to overcome a number of barriers that slow down the flow of information throughout the entire organisation. Company (A) also hires external advisers that often work together with organisational members to make meanings from new information and to generate business ideas. The company also opens the interpretation process to let informal and verbal contributions in.

In contrast, company (D) places much value on interpreting information in view of the overall business objectives. Interviewees contend that making a collective interpretation from information is one of the key challenges that the company has to get over. They view that the company should focus on addressing real problems rather than symptomatic issues. They claim that an intensive reliance on external consultants, an inefficient use of information technology, and an unhealthy competition between organisational members and also, between business units are all factors that limit making collective interpretations from information. Moreover, interpreting new information via the value-based management assumptions as a dominant logic prohibits organisational learning to occur. Interviewees believe that the company misplaces a lot of opportunities because the top management often pays no attention to information that does not comply with a value-based management as a dominant logic. Besides, the company does not invest enough resources to encourage anecdotal learning, where something is tried and new ideas are generated. The reading of case study (D) proposes that the company places much value on information projects that maximise shareholders' value as a governing objective. However, participants view that the dominant logic of value based management neither provides them with common understanding nor allows them to challenge the reasoning behind predetermined decisions.

in a variety of committees. These committees often bring a number of participants together to share their knowledge and insights about strategic issues and emerging problems. Organisational members can also update their individual knowledge through a mechanism called 'call knowledge'. Call knowledge allows organisational members to get further development and training in relation to their job needs. This, in turn, develops and widens their capacity to act based on an interpreted meaning.

Conversely, company (D) encourages organisational members to respond and to act in view of the value-based management principles. In this company, a value-based management has resulted in a formal management system, which is limited in learning. Because value-based management thinking governs the entire group, organisational members become limited learners. Organisational members turn out to be more experienced in following a defensive reasoning that limits their capacity to learn. Participants view that the flow of information via a top-down approach has limited their creativity. Through a value-based management context, business units are required to act in a way that maximises shareholders' value and not according to the business unit's own initiatives. The reliance on a top-down approach in distributing information has created an inflexible approach for making interpretations from information and hence, organisational members failed to act collectively based on a shared mindset. That means, company (D) intends to reinforce a type of action that transmutes the entire group in a direction, which complies with shareholders' expectations. Because actions are harnessed to the generation of value for shareholders, a reflection on past successes and failures is less exercised in company (D). Besides, the development of multiple perspectives that provide insights not afforded by prior prescriptions rarely happens.

In contrast, company (B) adopts a work methodology that allows organisational members to take into account all relevant factors when implementing an action. This action is often built on an interpreted meaning, which those members discovered together and agreed upon. Organisational members are also required to present a number of governing factors that help them to advocate their positions before clients. The company also encourages organisational members to take time out to reflect on previous actions. Such reflection helps organisational members to improve their performance because it allows them to break down potential mistakes. The company intends to raise the accountability of organisational members' daily actions by linking their responsibilities to an 'issue and context approach'. That is, organisational members often act in view of a common knowledge and a number of practices that are generated and approved internally and later are socialised together as common standards. Organisational members are also encouraged to act

Alternatively, company (B) creates an organisational culture and learning processes that encourage organisational members to work together and to make collective interpretations from information. The company provides organisational members time out to search for collective solutions via a process of brainstorming. It also supplies them with an effective communication system and a number of knowledge networks that help them to generate collective meanings. This communication system benefits from an Intranet-based knowledge management system, a centre for continuous learning and development, and supportive learning materials. A team's contribution is the heart of this system. Teamwork is always rewarded. Organisational members are encouraged to participate in drawing the organisational initiatives. They are also encouraged to reflect on past information and to find solutions for emerging problems. An online electronic notice board helps organisational members not only to share interpretations and insights but also to receive help from each other. On the contrary, company (C) runs departmental meetings that bring a top management along with members from different operational levels together to make collective interpretations from information. A Continuous Improvement Process (CIP) and a Consolidate Procurement Organisation (CPO) represent two mechanisms that company (C) utilises to encourage organisational members not only to make a collective interpretation from information but also to exchange experience. A continuous improvement process mechanism helps organisational members to learn to do things differently from time to time.

Table 8.1 above also presents a variety of methods that four companies implement to encourage organisational members to act based-on an interpreted meaning. Because of the nature of its main business and the way by which its professionals were developed, company (A) continuously motivates professionals to act based on a shared meaning. Because the business process is not straightforward all the time, professionals have to follow a correct mannerism when delivering services into clients. The company focuses currently on this way of practice to overcome mis-selling problems. Professionals are required not only to figure out the right information but also to provide clients with a relevant financial advice that meets with their needs. Company (A) provides its professionals with an online information system that empowers them to tackle emerging problems. A number of internal specialists often prepare this information. This way of practice helps professionals not only to take their actions in view of the local clients' needs but also to share a collectively developed meaning with them. Company (A) has put into action a mechanism entitled "peer contact" in order to encourage organisational members to share their views on important business issues via a direct interface. The company often upgrades knowledgeable members who regularly share their knowledge and subject their experience to other in the organisation throughout the organisational structure. Knowledgeable members are provided an opportunity to participate

in a way that meets with clients' needs. A premium community of practice usually normalises a way by which an action can be taken and communicated. Company (B) rewards organisational members for their contribution to a global best-practices knowledge base. This compensation takes place through something called a "performance month reward scheme".

Alternatively, company (C) has put into practice a "prime objective scheme" to encourage organisational members to act based on a collectively interpreted meaning. Besides, the company links a reward scheme to an individual performance. A flat organisational structure, a number of discussion groups, a top management commitment, and a teamwork culture are all factors that help organisational members to act in view of a shared meaning. Table 8.1 above touches on a number of techniques that the four companies implement to accelerate the capability for organisational learning. Company (A) places much value on techniques such as boundary spanning units, a peer contact, and call knowledge to speed up the learning process. In contrast, company (B) utilises various tools including a workout process, a knowledge-space, an online electronic notice board, and a think tank to accelerate the organisational learning cycle. Conversely, company (C) increasingly uses both a Continuous Improvement Process (CIP) and a prime objective scheme to fasten the learning process. Finally, company (D) has put into practice a strategic search conference and a number of informal techniques in order to strengthen a move toward an action learning programme.

8.3 The Features of each Company's Approach to Organisational Learning: Formal vs. Informal Learning.

Through the course of this thesis, Dixon's (1994) model was utilised to examine the practice of organisational learning in terms of the four-stage cycle. The use of Dixon's (1994) model has helped this study to come across a number of processes that facilitate collective learning. These processes have incorporated spreading information throughout an entire organisation, integrating this information into an organisational context, designing reward schemes that promote collective learning, ensuring that organisational members participate in making major decisions, and encouraging organisational members to act based on an interpreted meaning. However, there are particular concerns with regards to Dixon's (1994) model that the examiner needs to share with the reader. First of all, Dixon (1994) contends that a dissemination of accurate and complete information is an essential prerequisite for collective learning. However, Dixon (1994) neither describes what it is meant by accurate and complete information nor explains how an organisation defines whether or not a piece of information is accurate and complete. In addition, Dixon's (1994)

model seems to place a little value on the type and scope of knowledge that can be shared in an organisation. Both the type and scope of knowledge explain to a large extent not only a way by which an organisation learns but also a competitor's capacity to imitate that learning. In her latest book, Dixon (2000, p 26) pointed out that the type of knowledge that is being transferred makes a difference in what methods of transfer works best.

Another concern on the subject of Dixon's (1994) model emerges from the rationale that she used to argue that collective learning takes place as a result of an "intentional" use of the learning processes. In so doing, Dixon (1994) overlooks the fact that collective learning can emerge as a result of socio-cultural routines and past practices. In other words, Dixon's (1994) model falls short in explaining how an organisation learns in response to immediate problems, imbalances, and difficulties. Additionally, the rationale of Dixon's (1994) model pays no attention to the influence of the control that managers maintain over the knowledge sharing process in an organisation. Power and politics are considered to be basics in the learning organisation (Coopey, 1996; Correl & Gregoire, 1998). Case study (D) has represented a good example of how the preferences and beliefs of the top management might influence the collective learning process. Consequently, it is seen that Dixon's (1994) organisational learning cycle was unsuccessful in considering the impact of social, political, and structural variables on the process of organisational learning. In short, the organisational learning cycle works better in a situation where the learning process is targeted to respond to 'deliberate planning'.

Linking the organisational learning cycle to an organisational memory was considered another issue that Dixon's (1994) model has overlooked. Dixon's (1994) model devotes an insufficient attention to the concept 'organisational memory'. The four stages of the organisational learning cycle often proceed as if an organisation acquires information for the first time or as if organisational learning and individual learning are similar in that they involve the same process of information storing. Dixon's (1994) model does not only fail to explain how an organisation encodes, stores or retrieves information but also to link these processes to the organisational learning cycle. It is unacceptable to imagine an organisation learns without paying attention to the memory in which this learning will be kept, retrieved, and updated. Organisational memory is increasingly considered to be a significant element in describing the collective learning process (see for example, Cohen & Bacdayan, 1994; Moorman & Miner, 1997; Schwandt *et al.*, 1999; Shrivastava & Schneider, 1984; Walsh & Ungson, 1991; Weick & Roberts, 1993). Cook and Yanow (1993, p 378) pointed out that 'what organisations do when they learn is necessarily different from what individuals do when they learn'.

Dixon's (1994) model also assumes that the learning process proceeds in an ideal way. In such a perfect way, collective learning is conceived of as a four-step cycle. The collective learning cycle progresses in a very rational sequence. It starts out by generating information, then integrating this information into an organisational context, then making a collective interpretation from this information, and then taking an action based on an interpreted meaning. By this means, Dixon's (1994) model was unsuccessful in addressing two major things. One has to do with the possibility that an organisation can have to bring to bear the individuals' skills and abilities required to carry out the four steps of the cycle in a particular learning situation. The other has to do with the consequences that can arise if learners decide to move in a transverse manner rather than following a circular sequence.

In consideration of these shortcomings that shape Dixon's (1994) model, this section of the chapter seeks to widen the interpretation of four case studies by highlighting the various characteristics of their organisational learning approaches. Denton (1998, p 90) pointed out that in order to evaluate each company's approach to organisational learning it is first necessary to create a set of criteria against which the companies can be assessed. Consequently, this study utilises the various features that are incorporated in Shrivastava's (1983) model in order to place much focus on each company's approach to organisational learning. Shrivastava's (1983) two-dimension model helps to shed more light on the unobserved aspects of Dixon's (1994) model. However, it must be acknowledged that the use of Shrivastava's (1983) model does not mean a replacement to Dixon's (1994) model. Rather, the intention is to employ the Shrivastava (1983) model in order to place much emphasis on the emergent-deliberate dimension of collective learning. Because such a dimension was left out the context of Dixon's (1994) collective learning cycle the use of Shrivastava's (1983) two-dimension model is intended for adding up another value to this study. Such value emerges from widening the interpretation of the case studies by incorporating new themes in. In other words, this research views that the integration between the basic conceptual perspectives that reside in both Dixon's (1994) and Shrivastava's (1983) models is far more helpful for understanding the organisational learning phenomenon. That means, while Dixon's (1994) model helps this study to examine the occurrence of organisational learning in terms of a four-step cycle, Shrivastava's (1983) model allows this study to explore the mechanisms by which organisational learning takes place in each company. Hence, it can be seen that Shrivastava's (1983) model enhances the interpretation of the case studies through putting another dimension in it. While Dixon's (1994) model places much focus on the importance of disseminating accurate and complete information, Shrivastava's (1983) model pays an attention to the types of knowledge that are widely shared in the organisation. While Dixon's (1994) model assumes that organisational

learning takes place as a result of an intentional use of the learning processes, Shrivastava's (1983) model acknowledges the fact that organisational learning can take place either as a result of unintentional or intentional processes. Here, Shrivastava (1983) intends to devote much attention to the influence of social, political, and structural variables upon the process of organisational learning. Shrivastava (1983), therefore, distinguishes amongst a number of learning systems in the individual-organisational dimension in consideration of the degree of control that managers often practise over the knowledge sharing process.

For example, a learning system, which relies upon inputs from one or few individuals, is claimed to be influenced by the personal preferences and beliefs of those individuals. While a learning system, which relies on the characteristics of the organisation rather than individuals, is claimed to be an impersonal and independent of individuals' preferences and inputs. In addition, Shrivastava (1983) explains that a learning system may emerge as a result of socio-cultural routines and past practices or may be designed to meet particular learning needs in the organisation. In contrast, the rational argument of Dixon's (1994) model seems to ignore the impact of power, politics, and control upon the occurrence of learning in an organisational context. Additionally, while Dixon (1994) places much emphasis upon the importance of integrating new information into an organisational context, Shrivastava (1983) intends to highlight the organisational make up as an essential element for constructing a set of organisational learning practices; learning practices that are targeted to improve the individual as well as collective actions through better knowledge and understanding. Despite the fact that both Dixon's (1994) and Shrivastava's (1983) models accept the importance of systems perspective for learning, Shrivastava's (1983) model transcends to set down the various features that describe the enterprise as a learning system. Within such a learning system, informal and formal activities are considered to have an impact upon the occurrence of organisational learning. The above discussion proposes that the integration between the Dixon (1994) and Shrivastava (1983) models can be a significant process in generating a better picture to the many aspects of the organisational learning phenomenon.

Hence, the discussion turns now to shed more light on the various features that describe each company's approach to organisational learning in view of Shrivastava's (1983) two-dimension model. Drawing on Shrivastava (1983), table 8.2 below presents a cross-case comparison that places much value on each company's approach to organisational learning. Here, the interpretation process focuses mainly on examining a set of organisational learning practices that are being carried out in four companies. These learning practices are grouped under four major learning systems in relation to their main characteristics. These systems

differ in terms of the types of knowledge that are widely shared, structuredness of learning activities, explicitness of rules, scope of learning, communication media, motivation for learning, time frame, and the organisational form of learning activities. Table 8.2 demonstrates that two main types of knowledge are widely shared in four companies. On one hand, objective knowledge is impersonal and independent of individuals' inputs. It is a sort of knowledge that often resides in general practices, procedures, and routines, which are independent of the individuals. On the other hand, subjective knowledge relates to the individuals' skills, perspectives, and frame of references. It is such a sort of knowledge that is primarily in the heads of individuals. Although the four companies appear to possess and utilise both subjective and objective knowledge some of these companies might make greater use of one type of knowledge over the other. In addition, some divisions might make greater use of one type of knowledge larger than other divisions inside the same company.

Table 8.2: The Characteristics of each Company's Approach to Organisational Learning: A Comparison.

Characteristics of an existing organisational learning approach	(Case Study A) Promoting for learning via participative teamwork	(Case Study B) Promoting for learning via knowledge-seeking culture context	(Case Study C) Promoting for learning via establishing the basis of mutual understanding between top management and lower operational levels	(Case Study D) Promoting for learning via a formal management system
1. The types of Knowledge that are widely shared in the organisation.	<ul style="list-style-type: none"> • Subjective: Individuals have the opportunity to develop their knowledge through self-learning and by getting external qualifications. This sort of knowledge influences the way through which individuals create their experience and share it with other members in the organisation. • Objective: Individuals are not wholly independent, they are encouraged to convert their knowledge and experience into the organisational knowledge base. By this means, the company seeks to develop general practices, procedures, and routines that are independent of the individuals. This can, in turn, enable the management to run the business via a deliberate system. Such a system helps organisational members to have a similar core understanding of the overall business process. 	<ul style="list-style-type: none"> • Subjective: Individuals are always encouraged to develop their knowledge via a number of mechanisms such as these of self-directed learning, continuous training and development, and by attending a range of external and internal courses. • Objective: An overall work task has to be done in consideration of collective knowledge, which is developed, updated, and verified collectively. Because of its importance, the company has established a reward system that intends to compensate individuals for their contributions to the collective knowledge base. In addition, an efficient utilisation of advanced information technology has helped professionals worldwide to share collective knowledge without having to be in the same place. The global-best practices knowledge base and search agents methodologies are two best examples of that way of practice. 	<ul style="list-style-type: none"> • Subjective: The company encourages individuals to acquire personal knowledge. Each employee has to go through an internal training course that gets him to a point and that training course is not on and off one. Unless a candidate applies this knowledge it will be very difficult for the company to retain it. The company provides its employees with a range of introductory and focused courses to help them develop their personal skills and knowledge. • Objective: Company (C) increasingly places much value on the diffusion of objective knowledge. With the association of its worldwide affiliates and partners, the company intends to provide the organisational tools and context through which objective knowledge can be developed and widely communicated. The company also works together with its worldwide partners and affiliates to exchange knowledge and best practices. 	<ul style="list-style-type: none"> • Subjective: Individuals have the opportunity to develop their personal knowledge either through attending internal career development programmes, courses, workshops, and search conferences or through getting external qualifications including fully financed study leave or MBA and a range of technical courses. • Objective: Knowledge has to be developed in terms of the company's own routines and interdependencies across their processes, history, technology, work activities and relationships between different business units. The quality of such emerged knowledge is thus evaluated in the light of the commitment to the overall objective. Company (D) utilises a number of organisational tools such as business review reports and search conferences to ensure that the business objectives are well understood by those members that receive the knowledge.
2. The structuredness of organisational learning activities.	<ul style="list-style-type: none"> • Medium: Knowledge has to be shared and interpreted collectively in view of the central rules and policies that govern the business. Company (A) creates an 	<ul style="list-style-type: none"> • Low: Each group of professionals or team members are encouraged to structure their own methodology of knowledge sharing taking into consideration 	<ul style="list-style-type: none"> • Medium: Company (C) preserves a sort of cooperation between the central management and other operational levels in the organisation. The top management 	<ul style="list-style-type: none"> • High: Knowledge that was generated internally must fit with the value-based management principles and also, must comply with the rules set out by the central

	<p>atmosphere that allows its members to have a reasonable role in running the overall business process and in making critical decisions.</p>	<p>the current work circumstances and the potential requirements of a particular task.</p>	<p>defines the general goals and policies and also, allocates major resources. The SBUs are in charge to develop detailed strategies, to integrate core aspects of the business, and to manage the everyday business. Not only does this sort of collaboration help the company to maintain its long-term continuity but also it provides the tools for pursuing organisational improvements on a regular basis.</p>	<p>management. This way of practice in turn requires both the individuals and business units to adopt knowledge transfer practices that should match with the central policies and objectives.</p>
<p>3. Explicitness of rules.</p>	<ul style="list-style-type: none"> • Medium: Participants interviewed in this study have claimed that the success of organisational learning activities depends on both the willingness of the central management to effectively approach knowledge aiding and transfer and on the capability of the branch management to interpret such knowledge in the light of local clients' needs. This way of practice is quite understandable in the financial service industry, which is often governed by various external regulations and requirements. 	<ul style="list-style-type: none"> • Low: People are trained to set out their day-to-day rules. The top management on a regular basis defines a number of criteria such as these of meeting the deadlines times and delivering services right at first time. By this means, it wishes to place much focus on the efficiency of the potential outcomes of collective learning. The top management provides individuals with a large room to manage the business and to make decisions. Employees often view new organisational tools and rules as the means to do the same job they had been doing, the same way, only a little bit better. 	<ul style="list-style-type: none"> • Medium: The close association between top management and other operational levels of management creates a reasonable degree of explicitness upon which individuals can be better placed to get the picture of their rules. This way of practice usually produces a work context in which socially created and maintained meanings can emerge. This can, in turn, establish the basis for mutual understanding, for capable communication, and for effective co-ordination in managing the organisational learning activities. 	<ul style="list-style-type: none"> • Low: Employees are unaware of what is going on because the rules are developed and further, interpreted centrally. Employees, therefore, prefer to stick on fulfilling their job requirements instead of speculating the unknown. That indicates how far the distance between top management and other operational level in the company. A store manager pointed out that I don't think that the company is asking people to say 'what can you do to help generate and sustain learning processes within the business'.
<p>4. The scope of organisational learning.</p>	<ul style="list-style-type: none"> • Problem specific: Discussion groups or committees are often constructed so that people can be better placed to capture, to share, and to interpret knowledge on critical issues and problems that might face the business either at the top management level or at the branch management level. Within such a context, company (A) places much focus on cross-functional teamwork and networking to resolve these emerging problems. 	<ul style="list-style-type: none"> • General: The current learning paradigm allows individuals to acquire and to share knowledge as a part of their day-to-day work practices. They can narrow the scope down in terms of accessing a specific list of best practices or making mutual interest between various premium communities of practice or having a necessity or demand to do something. 	<ul style="list-style-type: none"> • Task specific: Company (C) encourages individuals to get together and to share learning in view of a particular organisational mission. In such a situation, individuals get together and share knowledge in order to embrace new ideas and move on them. They are better positioned to understand how sharing of knowledge helps them to learn and to build experience that hard to find in somewhere else. 	<ul style="list-style-type: none"> • Task or area specific: People usually meet together to share knowledge that relates either to a given task or to their particular business unit's needs. For instance, people from the Chemist business unit can get together with people from the Contract Manufacturing business unit to share marketing and technical knowledge in the case of launching a new product or working out a new idea.

5. Media for communication	<ul style="list-style-type: none"> Company (A) utilises a set of communication media to promote for collective learning. These communication media include seminars, internal conferences, phone calls, workshops, training sessions, and face-to-face meetings. However, discussion groups are increasingly employed to enhance the knowledge sharing capability of the whole organisation. 	<ul style="list-style-type: none"> Company (B) has put into effect a number of communication media including face-to-face meetings, internal conference, seminars, workshops, Internet and Intranet. However, the spoken communication is considered to be the common medium for communication in the company. This may revert to the intensive use of team-based knowledge projects throughout the whole company. 	<ul style="list-style-type: none"> Company (C) utilises a range of channels for communicating information including face-to-face meetings, conferences, phones calls, Internet, faxes, memos and reports, printed literature, voice mail, and seminars. However, cross-functional meetings are considered to be the main medium for diffusing out information inside the company. 	<ul style="list-style-type: none"> Company (D) makes use of a number of communication media. These media incorporate cross-functional teams, internal annual conferences, group meetings, seminars, and Internet. However, business review reports are the most common form for communicating information in the group.
6. Motivation for learning activities.	<ul style="list-style-type: none"> Strategic and urgent problems usually constitute the driving forces for learning practices and initiatives inside company (A). The top management seeks to encourage organisational members to learn and to take the full advantage of new opportunities that lie ahead in the external market. 	<ul style="list-style-type: none"> Social norms are the main motivation for learning activities because the overall business process is simply resting on knowledge. Acquiring and sharing knowledge are key knowledge-related activities that shape each individual's contribution, performance and support to the whole business process. The internal business environment attaches an importance to social interaction and mutual trust as major perquisites for successful decision making. 	<ul style="list-style-type: none"> Decision-making needs are for the most part the driving forces for learning activities in company (C). Individuals are increasingly motivated to share learning because they always recognise that the capability to communicate and share learning with other is beneficial for the business. Technology, structure, and business environment are considered to have a significant impact upon this way of practice. 	<ul style="list-style-type: none"> Periodic requirements usually form the main motivation for carrying out a lot of knowledge work in company (D) because the group promise is to maximise shareholders' annual return. A senior consultant pointed out that people stumble across information relating to their projects, rather than knows exactly where to go to get it in relation to their projects. The periodical requirements of the value-based management approach impacts principally on such a purpose.
7. Time frame of information.	<ul style="list-style-type: none"> Current information is a key element to the business process and that might go back to the nature of the financial service industry, which tends to react and to operate taking into consideration updated market information. Acquiring and disseminating updated information are extremely vital factors in fulfilling clients' needs and in carrying out the organisation tasks. Updated information is thus seen as an essential element not only for clients but also for employees themselves. 	<ul style="list-style-type: none"> Current information is a key to the overall business process because it is the business responsibility to develop future information through a process of forecasting or prediction. A business consulting manager pointed out that the company traded on its knowledge and traded on the fact that it is operating in 80 countries or so with everybody with the same access to the same knowledge. 	<ul style="list-style-type: none"> Historical information is widely shared and utilised in company (C). Various management levels utilise information on past experience and past cases when they make decisions or draw new business initiatives. A supply manager pointed out that each employee in the company has the ability to draw out meanings from past experience so that the company will have the very best business potential. 	<ul style="list-style-type: none"> Company (D) intends to make a planned utilisation of current and future information. While current information provides the base for monitoring irresponsible behaviours of various business units, future information provides the base for effective strategic planning and capacity expansion activities. A head of communication stated that we've been working in a search conference to define what the business should be doing in the future to achieve competitive advantage.

<p>8. Organisational make-up of learning practices.</p>	<ul style="list-style-type: none"> • The organisational make-up for learning activities either takes the form of a permanent or temporarily committee that often engages in resolving emerging <i>problems</i>. In addition, learning activities might be organised around <i>department specific</i> information needs that intend to assist such a department in carrying out its operations more efficiently. 	<ul style="list-style-type: none"> • The organisational make up of collective learning practices often emerges in relation to the <i>traditions</i> of the existing work methodology and the information needs of a virtue community of practice. As a business services consultant pointed out “it is a normal working life climate to process and share this knowledge, it is a part of running the business”. 	<ul style="list-style-type: none"> • Organisational learning practices and initiatives are often organised in view of <i>business units</i> or <i>divisions</i> operations. This sort of organisation involves cooperation of ongoing projects that help key organisational members to access modern and user-oriented systems for effective business management. 	<ul style="list-style-type: none"> • Organisational learning activities are often organised around <i>division</i> or <i>business</i> unit needs. Each business unit serves as a profit centre and it is hence evaluated in terms of its contribution to the achievement of the overall business objectives.
<p>9. Caveats exist in each of these learning approaches (as informants view them).</p>	<ul style="list-style-type: none"> • Organisational size might prohibit the development of proactive learning initiatives. • The decision-making process might take a long-time. • People who are participating in many committees or teams might face time scheduling problems. 	<ul style="list-style-type: none"> • Information overload problems • Personnel-turnover • Cost-phobia. • In the long run it might end with providing clients with ready-made services or highly standardised business services. • Lack of information control. 	<ul style="list-style-type: none"> • Emphasising on objectivity might prevent individuals from sharing their personal perspectives with other peers in the organisation. • Focusing on accuracy and precision in communication and in documentation may postpone the decision-making process. • Poaching key individuals by competitors via financial incentives may create a knowledge gap in the organisation. 	<ul style="list-style-type: none"> • People might resist to any initiatives that are developed centrally. • Lack of understanding what the overall business is about. • People are less motivated to share their knowledge. • The top-down approach of knowledge transfer limits individuals’ capability to reflect their views on major decisions since the top management maintains a considerable power on information sharing.

For instance, company (A) places much value on the individual knowledge in comparison to company (D). A large part of the knowledge sharing process within company (A) takes place during the interaction between professionals and clients. In addition, subjective knowledge is increasingly utilised inside the contract manufacturing business unit compared with the chemist business unit in company (D). In contrast, company (C) develops its individuals' knowledge and understanding via an effective co-operation with a number of worldwide partners and affiliates. These efforts were largely successful because of the enormous technological knowledge that is being shared in a process of two-way dialogue. While company (B) places much value on creating an internal work environment in which both personal and objective knowledge grow up together through practice. A human capital services manager explains that the internal environment is very supportive and there are a lot of people who like to share their knowledge to help along the way. Company (B) empowers its individuals' responsiveness to balance between the need for continuous development and the need for continuity of the system in which they operate. It considers this as a significant stage towards building up its capability for organisational learning. The knowledge seeking culture environment in which individuals operate increasingly supports such a way of practice.

Table 8.2 above also demonstrates that the four companies vary in terms of the degree of structuredness of their organisational learning activities. For example, the reading of case study (A) proposes that the company has created an atmosphere in which individuals benefit from a reasonable degree of autonomy in planning their learning activities. Within such an atmosphere, individuals are encouraged to make collective meanings from information in relation to a particular problem that they might face. They behave as a community of practice where they share their practical knowledge and where most of their skills are developed through a network of work relations that are not hampered by constraints. Company (A) has also put into practice a number of mechanisms that guide those individuals in carrying out the organisational objectives. This way of practice helps the organisation to achieve a reasonable degree of interconnectivity in its learning practices. In contrast, individuals in company (B) enjoy a large degree of autonomy in developing their learning activities. Professionals are encouraged to structure their learning practices in the way that meets with their work needs. Individuals are enhanced to develop their skills and to generate creative solutions so that they can be better placed to figure out clients' problems. This way of practice is increasingly supported via a culture of inquisitiveness and curiosity that the company promotes. Alternatively, company (D) maintains a large degree of structuredness in its collective learning activities. This may revert to the great role that the central management does have in promoting learning practices in the entire group. The

central management seeks to propagate for learning activities in view of the value-based management principles. Senior executives often maintain a significant influence upon the interpretation of information. In such a context, individuals have a limited room to create their own learning practices. In contrast, the close association between the top management and other operational levels allows a reasonable degree of structuredness in learning activities to emerge inside company (C).

Table 8.2 above reveals that the four companies differ in the explicitness of rules that their individuals benefit from when carrying out learning activities. On one hand, employees in company (A) enjoy a reasonable degree of explicitness in conducting their day-to-day work practices. The central management supports such way of practice by providing lower levels management with sympathetic, open, and trusting work environment in which various learning practices develop. The intention is to encourage organisational members to share knowledge and experience in relation to the central policies. Conversely, individuals within company (D) are unaware of what their rules are about. This may go back to the huge gap that exists between senior management and other lower operational levels in the group. The top management often structures information acquisition, processing, and dissemination activities in the entire group. Individuals are less encouraged to participate in making major decisions. This often results in producing a culture that reinforces individuals to follow a defensive reasoning, which in turn limits learning. In contrast, the actual work methodology in company (B) encourages professionals to set down their rules in view of the context of their own work requirements. A business consultant manager explains that as a partner he is responsible for running his own business, for giving quality advice, developing relationships, and creating new opportunities. He continues to describe that a major part of delivering commercial solutions into clients relies on sharing knowledge and ideas with other colleagues throughout the worldwide network. Alternatively, the close cooperation between the top management and various operational levels in company (C) has resulted in a work environment in which individuals benefit from common knowledge; common knowledge that helps them in carrying out organisational tasks.

Table 8.2 above indicates that the scope of organisational learning practices vary across the four companies. A large part of learning activities in company (A) takes place as a response to specific problems that might face the whole company or a particular division. The company, in turn, encourages individuals to work in teams or committees to resolve emerging problems. Individuals are also supported to utilise both internal and external knowledge to generate solutions for business problems as they emerge. In contrast, individuals inside company (B) have a general scope of their learning activities. Contributing

to the knowledge base and exchanging knowledge with other professionals are considered to be critical factors in a professional daily working life. A tax manager explains that if a person has made no use of the knowledge exchange that is considered a black mark of his career and against his performance. He goes on to clarify that individuals utilise the analogy of the organisation being like a train with nobody owned the train, and they bought tickets to ride the train. Alternatively, individuals in company (D) often share their knowledge in view of a task or division specific needs. For example, the company may organise a search conference or a workshop that brings individuals together to share knowledge and insights around a particular task. On the contrary, individuals in company (C) are always encouraged to work in teams and to share knowledge so that they can be better positioned to carry out a particular task. The flow of information is often targeted towards facilitating the achievement of such a particular task. Teamwork culture is considered to be the heart of this way of practice.

Table 8.2 above demonstrates that the four companies utilise a range of communication media to promote for organisational learning. Although company (A) employs a variety of communication media including seminars, internal conferences, phone calls, workshops Internet, and face to face meetings, discussion groups are considered to be the common forms of communication for sharing learning inside the organisation. In contrast, company (D) makes use of a number of communication media incorporating cross-functional teams, internal conferences, workshops, seminars, and Internet. However, written reports are widely used for communicating information throughout the whole group. Alternatively, company (B) employs a set of communication media including face to face meetings, conferences, seminars, Internet, and Intranet. However, spoken communication represents the medium number one in the organisation. Conversely, company (C) utilises various media for communication to spread out information such as these of face to face meetings, conferences, phones calls, Internet, faxes, memos, reports, printed literature, voice mail, and seminars. However, cross-functional meetings are widely utilised in company (C).

Table 8.2 above indicates that the motivation for organisational learning vary across the four companies. On one hand, emerging business challenges and problems are the driving forces for learning activities in company (A). Individuals are always encouraged to change work practices and routines and to consider new approaches in order to meet these emerging challenges. In contrast, the social norms are the driving forces for organisational learning in company (B). Sharing organisational knowledge is considered to be a core aspect of professionals' daily work operations. This often comes back to the vision of the firm; a vision that allows everybody from the top to the bottom of the firm to be aware of how to use

this knowledge. Case study (B) represents an example of a culturally-oriented learning mode in which professionals are better placed to maintain and develop knowledge, adapt to changes that occur in the whole work context, and understand the processes through which new knowledge can be generated. Alternatively, the periodic requirements of the business are the driving forces for organisational learning activities in company (D). A feedback mechanism was developed so that the top management can be better positioned to review learning activities at both business unit and group levels. Senior executives have also started to conduct quarterly and six-month reviews to assess what have been learnt in such period. Conversely, sharing knowledge for efficient decision making is seen to be the driving force for learning activities in company (C). Individuals are often encouraged to share past experience and knowledge when they come together to participate in making major business decisions. Learning is considered to play an integral role in the decision-making process. Not only do individuals learn to acquire but also to analyse information so that they can be better placed to make valuable recommendations to the management on how efficient decisions should be made.

Table 8.2 above also illustrates that the time frame of information varies across the four companies. On one hand, company (C) places much value on past information. The senior management always encourages organisational members to think up new ideas by offering them opportunities to reflect on past experience and historical information. Individuals usually utilise information on past cases and historical events when they learn to resolve problems. They look at learning from experience as a genuine component of their daily work practices; practices that help the whole company to improve existing processes, products and services, and also, to reduce costs. In contrast, company (A) places much value on current information that is considered to have a direct impact upon both internal and external users of information. Such focus on latest information has been strengthened through the establishment of a set of tools that can enable professionals to access updated information continuously. By acquiring updated information, those professionals can be better placed to serve clients and to deal with changes that are taking place in the marketplace. Alternatively, company (D) makes efficient use of current and future information. On one hand, the use of current information allows the central management to monitor the progress pointed towards achieving the main objectives of the group. This is quite obvious in the major role that the central management enjoys in reviewing the progress pointed towards the accomplishment of a number of stated objectives at regular intervals. On the other hand, senior executives make very much use of future information to draw potential plans and to make efficient allocation of current resources. In addition, such a kind of information helps senior executives to make a useful distinction between value generating

size, hierarchical structure, delay of the decision making process, and time schedule problems are representing crucial gaps in the existing learning methodology. In contrast, informants interviewed in company (D) view that factors such as these of the separation between central management policies and business units needs, lack of understanding the central policies, competition between business units and also, between individuals for its own sake, and the top down culture as major barriers to organisational learning. Alternatively, factors such as these of information overloads, personnel turnover, cost, the move towards more standardised business consulting services, and lack of information control are considered to be crucial gaps in the more open knowledge seeking culture approach that company (B) currently follows. Conversely, the great emphasis on objectivity sometimes prohibits individuals from sharing their personal knowledge and insights inside company (C). In addition, the focus on accuracy and precision in communication and in documentation may put off the decision making process. Personnel turnover was also cited as a crucial problem that challenges the management of company (C).

Overall, the above discussion has placed much emphasis upon examining the various features that describe each company's approach to organisational learning. The discussion has acknowledged that the four companies considerably vary in terms of the process of knowledge sharing. Some companies, such as these of case study D, intended to formalise the way upon which knowledge is generated and is further employed throughout the whole group. An organisational mechanism of value-based management was considered to be the central notion by which knowledge projects can be evaluated. This has in turn created a situation in which there exists a sound conflict between formal and informal learning. While some companies, such as these of case study B, comes up to consider the knowledge sharing process as a social activity, which often revolves around a particular organisational task. In such a case, individuals maintain a large room to establish a network of social relationships and to come to a decision concerning potential learning objectives. The central policies and work standards often guide them in making such a decision. The above discussion has also touched on a number of features that explains the way through which a learning approach comes to exist in a particular company. It has been noticed that some of these learning approaches come to appear as a result of social, traditional, cultural and historical practices of a company. While some others come to exist as a result of deliberate processes that are designed to achieve pre-determined objectives. Company (D), for instance, sought to design a number of formal processes whereby senior executives can be better placed to monitor a range of planning and learning activities. In contrast, company (A) has adopted a learning approach in which knowledge acquisition, processing, and dissemination activities all take place through the means of cooperative working teams. The examination of four case studies

businesses and value destroying ones. By this means, senior executives can be better positioned to maximise the future cash flow of the business. Conversely, company (B) places much value on current information. The company has put in place a number of tools that enable organisational members to have an online access to a range of updated information sources. Informants interviewed in this study claim that a core part of the company main business is to develop future implications from current information. As a result, these implications can be delivered to clients or can be utilised by professionals themselves.

Table 8.2 above demonstrates that the organisational make up of learning activities vary across the four companies. Company (A) targets collective learning practices to tackle specific problems or to empower the performance of a particular business unit. Individuals often come together to learn how to solve problems or how to meet future business challenges. This way of practice is further enhanced via a number of training sessions, conferences, workshops, and discussion groups that the company widely applies. In contrast, company (B) allows both professionals and partners to organise collective learning activities in the way that matches clients needs and also, complies with the central policies and traditions of the firm. This way of practice is quite obvious in the virtue communities of practice methodology that the company has put into effect to encourage team learning. Alternatively, company (C) organises collective learning activities around business units operations' needs. In such a case, individuals are encouraged not only to work in teams to resolve business unit's own problems but also to contribute in making its major decisions. The top management encourages each business unit to consider learning as a major practice for all individuals. This way of practice in turn fosters an internal environment in which organisational learning can be facilitated and enable throughout the entire organisation. Conversely, the relationship between the group centre and business units defines, to a large extent, the organisational make up of learning activities inside company (D). The role of the centre as a policy maker is to ensure that the overall policies and activities are over specified. Business units must in turn organise collective learning practices in the way that complies with central policies. The role of central is further expanded to provide business units with advice, which is often interpreted as a policy. This way of practice has limited business units' capability to challenge the boundaries set by the group centre. In addition, a risk averse culture of "suspect it" a sort of situation has been proliferated in the whole company. This has, consequently, restricted business units' creativity.

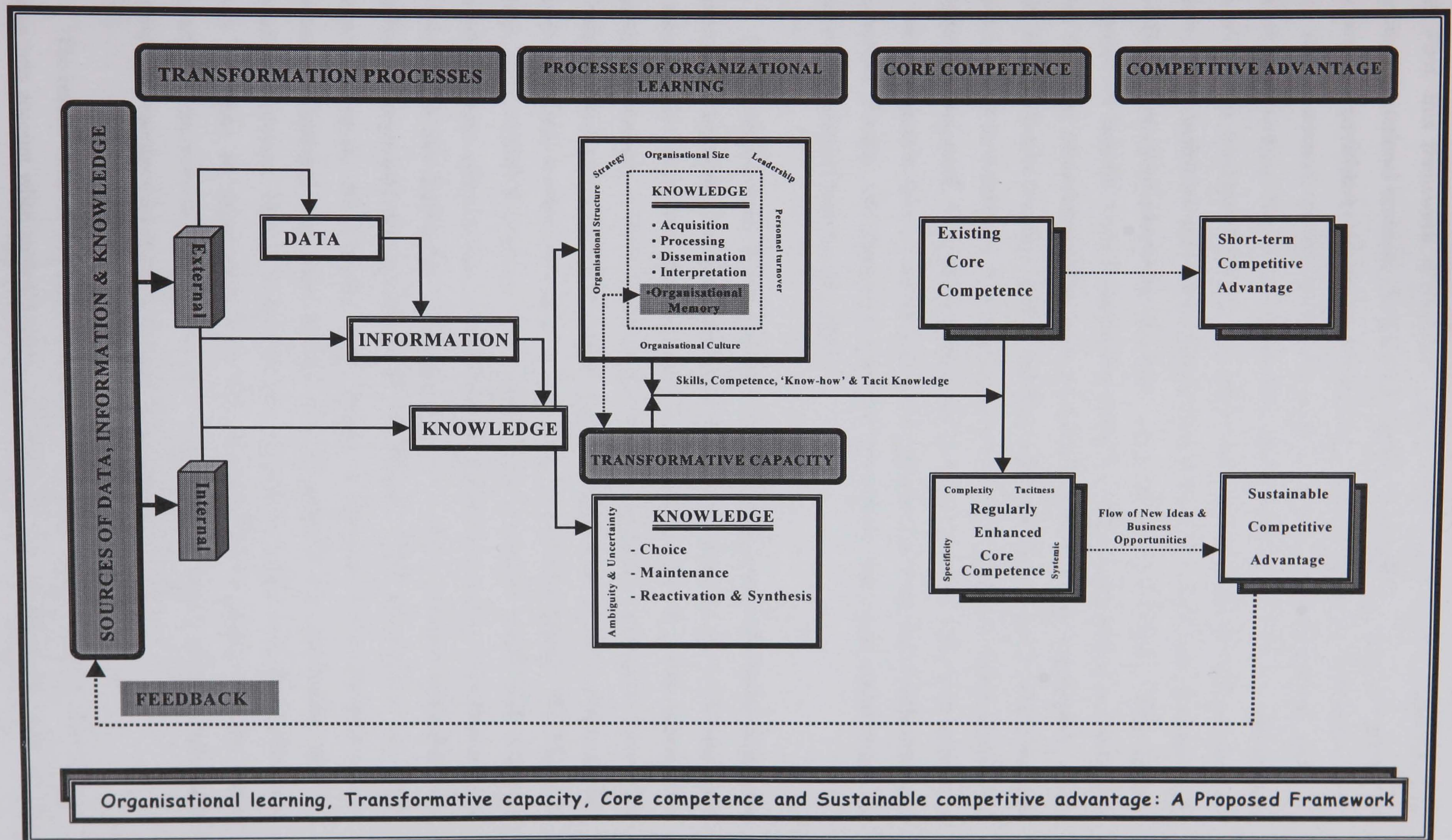
Table 8.2 also shows that each company experiences a number of shortcomings as a result of adopting a particular approach to organisational learning. Within company (A), participants interviewed during this study claim that factors such as these of organisational

though suggests that for effective learning to take place a company must provide formal and informal learning opportunities at the same workplace because neither formal nor informal learning can occur independently.

8.4 Organisational Learning and Transformative Capacity: A Proposed Framework.

This section sets out to construct a framework that benefits from and adds to the basic conceptual perspectives that reside in the Dixon (1994) organisational learning cycle. In particular, this framework intends to strengthen the basic conceptual perspectives that exist in Dixon's (1994) model by linking them to Garud and Nayyar's (1994) concept of 'transformative capacity'. This framework is set to discover the common themes that have emerged from the results obtained from the case studies. Not only does this framework build on a number of organisational learning issues raised by participants but it is also related to the literature. This framework mainly explains the way by which an organisation leverages the capability for organisational learning to a competitive advantage. So, the emerging framework intends to assimilate a number of elements that can better describe the phenomenon under study. Figure 8.1 below depicts the basic elements that construct the emerging framework.

Figure 8.1: Organisational Learning and Transformative Capacity: Leveraging Collective Knowledge to a Competitive Advantage.



The value of the emerging framework resides in a number of criteria upon which it is based. *First*, this framework is developed and modified from evidence gathered from different organisational contexts. *Second*, this framework is built not only on a number of ideas raised by participants but also on relating these ideas to the literature (Shehata, 1999). *Third*, this framework clearly defines the central phenomenon of interest, which is organisational learning. *Fourth*, this framework identifies the key premises or assumptions upon which it is constructed (Bacharach, 1989). *Fifth*, the relationships between the core elements of the framework are clearly explored (Sutton & Staw, 1995). *Sixth*, the framework also makes a conceptual distinction between a variety of concepts (Miller, 1996). *Seventh*, this framework benefits from Prahalad and Hamel's (1990, p 89) notion in which they argued that core competence reflects the specialised expertise of an organisation, which results from collective learning. *Eighth*, this framework exploits Barney's (1991) resource context in which he described a firm's resources as these that include all assets, capabilities, organisational processes, firm attributes, information, and knowledge. Knowledge provides a firm with the means to think up and to implement strategies that strengthen its efficiency and effectiveness. *Finally*, this framework generates predictions that create opportunities for further examinations (Crossan *et al.*, 1999).

If an attempt is made to read Dixon's (1994) model in terms of the basic elements of the emerging framework, then transforming data and information into the knowledge stage can substitute the widespread generation of the information stage. It can be claimed that organisational learning is likely to take place when an organisation transforms knowledge and insights, which are substantiated through experience and experimentation processes, into the overall business context (Davenport *et al.*, 1996; Davenport & Klahr, 1998; Morry & Johnson, 1997; O'Dell & Grayson, 1998). Organisational members benefit from collective knowledge to make effective decisions and to take authoritative actions. Transforming data and information into knowledge is considered to be a central element to establish the capability for organisational learning (Brown & Duguid, 1998; Davenport *et al.*, 1998; Davenport & Prusak, 1998; Nonaka, 1991; Nonaka & Takeuchi, 1995). The processes of organisational learning stage can replace with integrating new information into an organisational context. That is, it appears that collective learning often takes place and spreads out when an organisation tends to institutionalise the mechanisms by which organisational members really learn within a collective setting. These processes represent the structural and procedural mechanisms through which organisations learn.

The results obtained from the case studies demonstrate that a number of factors must be taken into account when an organisation intends to structure the processes of collective

to generate creative ideas and opportunities and to employ best practices that result in cost-savings, quality improvements, more effective time management, new product and services, new processes, and a customer's satisfaction. Having mentioned that, the discussion now turns to a brief explanation of a number of elements that form the emerging framework.

8.4.1 Transforming Data and Information into Knowledge: Creating the Capacity for Self-Transformation.

Dixon (1994) has made a useful distinction between two terms of greatest importance. These incorporate both 'information' and 'accessible meaning structures'. Dixon (1994) has pointed out that accessible meaning structures are considerably different from information. On the one hand, Dixon (1994, p 38) explained that 'information' is data, which are organised into charts, graphs, speech, written statements etc. Information often exists in different places in the organisation incorporating books, reports, memos, journals and so on. In contrast, 'accessible meaning structures' are these parts of organisational members' cognitive maps that they make available to others in the organisation. These meaning structures can exist only in human beings. That is, meaning structures reside in organisational members not as fixed structures but as continually changing relationships. This leads to an important implication for organisational learning. This implication reveals that for organisational learning to occur, organisations should not only distribute information essential for learning but also encourage organisational members to construct a meaning from it. That means, information is a fundamental but an insufficient source for organisational learning. As Dixon (1994, 39) pointed out 'learning, whether organisational or individual, is about the construction of meaning'. An organisation's capacity to learn is thus a function of its ability to transform flows of data and information into accessible meaning structures. Such alteration helps organisational members not only to exchange these meanings but also to examine their validity. Popper and Lipshitz (2000, p: 187) pointed out that 'learning at both individual and organisational levels involves the transformation of data (uninterpreted information) into knowledge (interpreted information)'.

Accordingly, this study contends that making a clear distinction between data, information, and knowledge is a central step for creating the capability for organisational learning. It is seen that this differentiation is crucial to an organisation that seeks to generate valuable outcomes from organisational learning activities. It is now essential to extend this discussion by explaining how these three terms vary. Initially, data can be seen as an elementary source of knowing something but it has no critical meaning to the decision-making process. Data can also be defined as a set of discrete, objective facts about events or structure record of transactions (Davenport & Prusak, 1998). Data becomes information

learning. These factors include an organisational culture, an existing system for communication, an existing information technology infrastructure, a business strategy, organisational size, a personnel turnover, an organisation structure, a leadership style, and a cross-functional teamwork methodology. This study contends that an organisation should devote considerable attention to creating knowledge-friendly culture. This culture helps organisational members not only to understand the collective learning processes but also to reflect such understanding in the everyday business operations. This, in turn, strengthens organisational members to adapt to changes that are happening outside the organisation and to comprehend the processes through which collective knowledge can be generated. This study thus argues that without understanding the processes of collective learning, it would be a misjudgement to believe that a widespread generation of information can automatically result in organisational learning.

It is, therefore, understood that a deliberate recognition of the organisational learning processes is a central determinant to an effective orchestration of a learning organisation. In other words, while Dixon (1994) intends to develop a model of organisational learning as a social process, the emerging framework expands to explore the circumstances in which organisational members can comprehend the conceptions of organisational learning activities. The collective interpretation of information stage can be replaced with developing the competence aspects of the collective knowledge stage. For organisations to create value or a competitive advantage from collectively created knowledge, they have to structure collective knowledge in a way that makes it difficult to transfer outside the organisational boundaries. That is, such collective knowledge should always be considered as a complex and a difficult to imitate asset (Chiesa & Barbeschi, 1994; Turner & Crawford, 1994). That means, organisations are required to create a number of barriers that limit competitors' capacity to imitate successful knowledge.

Finally, taking an action based on a collectively interpreted meaning stage can be substituted by leveraging collectively developed knowledge to a sustainable competitive advantage. Organisational learning strengthens an organisation's competitive advantage through generating effective patterns of behaviours, routines, rules, and cognitive processes and sense making (Edmondson & Moigeon, 1996; Helleloid & Simonin, 1994). While Dixon's (1994) organisational learning cycle focuses entirely on connecting an action to a collectively interpreted meaning, the emerging framework sets out to explain not only the contingencies of taking an action but also the potential outcomes of that action. Moreover, the emerging framework signifies the way in which organisations think they are creating long-term values from organisational learning. This can be seen in an organisation's ability

when its creator adds meaning to it. Davenport and Prusak (1998, p 4), for instance, identified a number of methods through which data transforms into information. These methods include contextualization, categorisation, calculation, correction, and concentrating. Alternatively, information can be viewed as an outcome of processing raw data into a meaningful source of knowing. Information has also been defined as data that is stored, analysed, and displayed, and is communicated through spoken language, graphic displays, or numeric tables (Dixon, 2000). Information is meant to change the way through which a receiver perceives something to have an impact on his judgement or behaviour (Davenport & Prusak, 1998). Davenport and Prusak (1998) pointed out different ways through which information can be transformed into knowledge incorporating comparisons, consequences, connections, and conversations.

Knowledge can be viewed as information whose validity was established through tests of proof and experience (Liebeskind, 1996). It is also seen as the meaningful links people make in their minds between information and its application in action in a specific setting (Dixon, 2000, p 13). Knowledge has to be generated and applied in the mind of knowers, organisational routines, practices, and norms (Davenport & Prusak, 1998). Transforming data and information into knowledge presumes that organisational knowledge is generated and further, disseminated through the organisational learning processes. Collective knowledge and insights that influence both the organisation behaviour and performance evolve through these processes. This, in turn, explains the interconnection between learning and knowledge. Dixon (1994, p 1) pointed out that knowledge is the result of learning and is ephemeral, constantly needing to be revised and updated. Learning thus leads to knowledge. Hence, it is an important for an organisation to target its learning processes to generate common knowledge. Such knowledge becomes the basis for creating accessible meaning structures in the organisation.

Overall, it is seen that a distinction between these three concepts plays a significant role in understanding the context of organisational learning. Organisations should consider such differentiation when attempting to build the capability for collective learning. The above discussion also proposes that knowledge should be regarded as a dynamic, action oriented, and distinctly different from information- that is, facts and information are meaningless until are being interpreted by living human beings into knowledge (Sveiby, 1996). This, in turn, helps organisations to mobilise their organisational learning efforts to continuously transform themselves into a dynamic business environment. Understanding this a context helps organisations to improve their business processes, to transfer best practices from one part of the organisation to another, to quickly cope with new technologies, and to

make efficient use of existing experience (Blackler, 1995; Nonaka & Konno, 1998; Petrash, 1996; Probst *et al.*, 1998; Ruggles, 1998; Sackmann, 1991; Schuppel *et al.*, 1998). Spreading such understanding in an organisation helps the organisation to transform its collective meaning structures once new changes arise. Kolb (1996, p 270) pointed out that 'continuing success in a changing world requires the ability to explore new opportunities and learn from past successes and failures'. The results obtained from the case studies have addressed a number of ways in which participants' organisations assimilate and exploit collective knowledge via a process of learning to generate commercial ends.

8.4.2 The Concept 'Transformative Capacity': Make better Use of Internally Developed Knowledge.

The first stage of Dixon's (1994) organisational learning cycle model highlights the importance of engaging organisational members in generating both external and internal information. On the one hand, the Dixon (1994) collective learning cycle suggests that organisational members, or in her definition primary users of information, must collect external information from multiple sources. By primary users, Dixon (1994) meant those individuals that will act on the information. The multiple sources of information may include customers, competitors, suppliers, economic factors, and government. Dixon (1994) argues that acquiring information from multiple sources by primary users enhances the diversity of meaning within an organisation. This, in turn, helps organisational members to directly experience an external environment in which they work, rather than through prepared information produced by others. Here, Dixon (1994) places much value on learning that takes place at the interface between an organisation and its external environment. Generating external information requires organisational members not only to cross the organisation's boundaries but also to interact with the world external to the organisation (Lane & Lubatkin, 1998). On the other hand, generating internal information and ideas happen within the boundaries of an organisation and through conducting the organisation's business. Here, Dixon's (1994) collective learning cycle places much emphasis on the internal capability of an organisation to generate new information. This information may emerge from analysing past successes and failures, from creating experiments designed to provide new ideas, or from developing teamwork organised to solve problems. This proposes that organisational members need to learn from what they do.

The emerging framework intends to broaden Dixon's view of both external and internal information by looking at the competitive values that organisations achieve from collective knowledge. The results obtained from the case studies reveal that competitive values can develop from either external or internal knowledge. On the one hand, Cohen and

Levinthal (1990) argue that the ability of an organisation to recognise the value of new, external information, assimilate it, and apply it to commercial ends is critical to its innovative capability. They call this process an 'absorptive capacity'. An absorptive capacity is the ability of an organisation to evaluate and exploit new opportunities from external knowledge. Cohen and Levinthal (1990) claim that the ability to recognise and utilise external knowledge is mainly a function of the level of prior-related knowledge. They view the development of an absorptive capacity and consecutively, an innovative performance is history or path-dependent. That means, an organisation needs prior-related knowledge to integrate and to utilise new knowledge. Cohen and Levinthal (1990) explain that the notion of linking a firm's ability to assimilate new knowledge into pre-existing knowledge implicitly incorporates two related ideas. One is that learning is a cumulative process. The other is that learning performance is greatest when the object of learning is connected to what is already known. This leads to another important proposition. That is, a diversity of knowledge provides a good basis for learning since it strengthens the possibility that external information will relate to what is formerly known.

In addition, knowledge diversity enhances the innovative process by helping organisational members to make new relations and linkages (Cohen & Levinthal, 1990). This proposition coincides with what Dixon's (1994) calls 'diversity of meaning structures'. While Dixon (1994) requires organisational members that act on external information to engage in collecting it, Cohen and Levinthal (1990) explain that an organisation's absorptive capacity relies on the absorptive capacities of its individuals. In both cases, the individual is a key but an insufficient determinant for collective learning. Cohen and Levinthal (1990, p 131) pointed out that a firm's absorptive capacity is not simply the sum of the absorptive capacities of its employees but that an absorptive capacity refers not only to the acquisition of information by an organisation but also to the organisation's ability to utilise it. That means, an organisation's absorptive capacity relies not only on the organisation's direct interface with the external environment but also on the transfer of knowledge across and within its business units. Therefore, understanding the sources of a firm's absorptive capacity depends upon the structure of communication between the organisation and the external environment and also, among the sub-units of the organisation (Cohen & Levinthal, 1990).

On the other hand, Garud and Nayyar (1994) propose the concept 'transformative capacity' as a complement to Cohen and Levinthal's (1990) concept 'absorptive capacity'. A transformative capacity is the ability of an organisation to generate business opportunities based on knowledge created within the firm (Garud & Nayyar, 1994). The concept

‘transformative capacity’ strengthens an organisation's ability to generate business opportunities from exploiting its store of internal knowledge. This concept directs organisations to look at their storehouses of internal knowledge in order to create long-term and distinctive values. It enhances an organisation’s capability to create new ideas based on using knowledge constructed inside its boundaries. It serves as an organisational mechanism for transferring internal knowledge through time. The notion of transformative capacity places much value on an organisational knowledge development mode that results from a cumulative progression of ideas. It provides organisations with an ability to deal with uncertainty and ambiguity by developing effective internal knowledge structures. This knowledge helps organisations to make future decisions and to generate new opportunities. The concept ‘transformative capacity’ is interrelated to the concept ‘organisational learning’ in which learning is viewed as routine based, history dependent, and target oriented (Levitt & March, 1988).

The concept ‘transformative capacity’ also empowers the capacity to generate ideas through connecting different vectors of internal knowledge together. The time lags in the development of knowledge thus foster a need for intertemporal knowledge transfer (Garud & Nayyar, 1994). The concept ‘transformative capacity’ explains the dynamic nature of the resource-based view of the firm. It demonstrates how new resources and competences can be created within an organisation. Garud and Nayyar (1994) substitute a bath tube analogy that has a static nature by a pollination process that reflects a path dependent and cumulative nature of the resource-based view. The time lags in knowledge creation and market development require organisations to choose relevant knowledge, to maintain them over time, and to reactivate and synthesise them on an ongoing basis (Garud & Nayyar, 1994). The concept ‘transformative capacity’ is thus linked to the concept ‘organisational memory’. Such a link occurs when organisations need to encode, to store, and to retrieve internal knowledge to overcome the personnel turnover and passage of time problems (Levitt & March, 1988; Spender, 1996b). Routine based conceptions of learning reveal that lessons of experience are preserved and complied with by using routines. All rules, procedures, technologies, beliefs, and culture are maintained through processes of socialisation and control (Levitt & March, 1988). Using mechanisms of attention in a memory structure can redeem these lessons. Organisations, however, face a number of problems when attempting to retrieve these lessons.

The main problem, which results from personnel turnover, is that it produces a significant loss of the human side of organisational memory. The non-anticipation of future knowledge needs causes another problem that takes the form of losing huge amounts of

knowledge by not storing them. Another problem might arise from the mis-matching between organisational members' information needs and the location of information, particularly, if such information was processed or stored by other members. Fostering a culture of knowledge sharing helps organisations to lessen the effect of these problems. This discussion proposes that the concept 'transformative capacity' helps organisations to make efficient decisions about using knowledge, discarding knowledge, or maintaining knowledge for future use. As a result, organisations will be better placed to make the utmost use of collective knowledge. For instance, they can manage a strategic change based on utilising a past experience. They can learn to develop business opportunities and ideas from internal knowledge. Dixon (1994) explains that taking time to reflect on previous successes and failures can be a valuable process to help organisational members learn from their actions.

The above discussion proposes that both absorptive capacity and transformative capacity are important for collective learning. However, relying solely on external knowledge may lead to the loss of a firm's competitive advantage because all competitors have access to such knowledge. That means, an absorptive capacity is an insufficient condition for generating a sustainable competitive advantage. Garud and Nayyar (1994, p 367) argued that absorptive capacity is insufficient in creating long-term competitive advantage in three situations. *First*, when a path-dependent cumulative knowledge is involved. That is, once knowledge becomes a firm specific, it becomes more difficult for others to comprehend it even though they have absorptive capacities. *Second*, when entry timing is important. *Third*, when an organisation operates in a constantly changing environment in which the organisation does not just respond to external changes, but instead, creates them by its own actions. This suggests that it is easier for organisations that face conditions of uncertainty and ambiguity to rely on internal knowledge to generate business opportunities. The concept 'transformative capacity' enables organisations to make efficient decisions about which knowledge to focus on, which to abandon, and which to maintain. Dixon's (1994) collective learning cycle devotes an equivalent emphasis on internal and external information. However, Dixon's (1994) model neither applies internal nor external knowledge to commercial ends. Accordingly, the emerging framework places great emphasis on the ways by which organisations assimilate and exploit collective knowledge to create long-term business success. Organisations should thus target their efforts to establish the mechanisms that they can exploit to generate and to recognise opportunities from collective knowledge. The results obtained from the case studies demonstrate that mechanisms such as teamwork, brainstorming exercises, reliance on information technology, participation in business issues committees, and scanning units were widely employed to create business opportunities and ideas.

Because of the intensive competition of today's business environment, organisations are increasingly required to create a number of barriers in order to protect successful internal knowledge. In that way, organisations can be better placed to strengthen and to sustain a competitive advantage that is built upon this knowledge. This study thus contends that organisational knowledge, which emerges from organisational learning, growingly serves as a central source for a sustainable competitive advantage. To protect this knowledge from imitation, organisations should invest in the four main dimensions of tacitness, complexity, systemicity, and specificity. That means, an organisation should create and maintain barriers to imitation, invest in sources of a competitive advantage, and consider the speed with which competitors can imitate successful knowledge. By regularly enhancing collective knowledge as a core competence, an organisation can be better placed to develop a variety of skills and conceptions.

These skills and conceptions, consequently, help an organisation to develop new patterns of behaviour, routines, rules, cognitive processes, and sense making. The organisation will thus be capable of generating new business opportunities, of developing creative and innovative ideas, and of spreading out best practices and insights. The general principles derived from the cases illustrate that knowledge strengthens an organisation to reduce costs, to improve product(s) quality, to introduce new products and services, to improve the existing products mix and processes, and to serve the marketplace effectively. An efficient use of knowledge also strengthens an organisation to manage its value chain better than competitors (Lukas *et al.*, 1996; Porter & Millar, 1985; Sinkula, 1994). This discussion proposes that the superior ability of organisations to learn is increasingly seen as a crucial source to sustain a competitive advantage (Hult & Nichols, 1996; Hurley, & Hult, 1998; Matthews & Schulman, 1999).

The emerging framework also places much value on a **feedback system** loop. The current study contends that the concept 'feedback system' influences an effectiveness of learning activities and it is thus considered to be a major element in creating the capability for organisational learning. The feedback system plays a critical role in the progress of higher level learning (Barton, 1994; Salaman & Butler, 1994). A feedback system also strengthens an organisation's capacity to balance a state of equilibrium with an external environment. The feedback loop, as shown in figure 8.1 above, provides a clear understanding about errors and corrections that may occur during carrying out the processes of organisational learning. It also serves as a mechanism not only for comparison but also for continuous reflection on organisational learning activities (Tax & Brown, 1998). This discussion proposes that much attention must be given to the role of a system feedback in

environment. The management of each company sought to encourage organisational members not only to consider new information from a local context perspective but also to reflect on new information for themselves. That means, collective learning requires organisational members to think for themselves and to use their own reasoning in the benefit of the company. The results obtained from the case studies revealed that when an individual reasoning is voiced, collective learning works effectively. Company (B) has, for instance, established a 'premium community of practice' not only to help organisational members to express their own perspectives but also to assimilate new information in terms of a local work context.

Similarly, company (A) has developed a Development Event Log (DEL) mechanism that brings professionals and local managers along with clients together to look at new information from a local context, while company (C) has benefited from a close association between the top management and other operational levels in the organisation to integrate new information into a local decision area. A flat organisational structure has enabled the company to broadly exploit a cross-functional teamwork and also, to integrate information in terms of local business issues. In contrast, company (D) has placed much value on establishing a commitment to an overall objective and consequently, this objective was used as the base for linking information into a local context. The results obtained from the case studies explain that information networks were utilised by the four companies to integrate information into a local work context. These results also demonstrate that a cross-functional teamwork was widely used by the four companies to assimilate new information.

The third stage, collectively interpreting information, was accomplished by a number of processes. These processes reflect the ways by which organisational members not only interpret information but also make a collective meaning in relation to it. This collective meaning in turn serves as an indicator for collective learning. The quality of what is learned within a specific organisational context is a function of the diversity of perspectives that organisational members bring to the interpretation process. That means, for organisational learning to work, an organisation needs to encompass a diversity of views; views, which organisational members often bring to the interpretation process. Organisational members can thus interpret given information in numerous ways. However, organisational members should come to an approved understanding of the meaning of this information. The validity of a specific meaning must be examined against the reasoning of others. The results obtained from the case studies demonstrate that making a collective interpretation from information was exercised in various ways. That is, the soundness of an individual participation in making a collective interpretation from information was quite different. For instance, the

sustaining a competitive advantage. An organisation is thus required to look at collective learning from a system dynamic perspective, a perspective that helps the organisation not only to move to more complex forms of systemic knowledge but also to extend its capacity to manage challenges and opportunities posed by internal and external environments (Morgan, 1997). It is also a perspective that describes the forces and inter-relationships shaping the behaviour of a learning system (Sanchez & Heene, 1996; Senge, 1990).

8.5 Concluding Remarks.

This section of the chapter draws a number of concluding remarks learned from the case studies results. These are drawn from examining collective learning in terms of the four-stage cycle. In the first stage of the organisational learning cycle, a widespread generation of information, it is made obvious that the four companies realise the importance of acquiring information in order to deal with a changing business environment. The term environment here refers to the forces that influence an organisation. These forces might emerge from technological, economic, political, and social changes. They might also develop from larger systems such as government and an industry in which an organisation operates. Each company sought to acquire information from multiple sources in order to be aware of what is happening in a business environment.

For instance, company (A) hired a number of marketing research analysts not only to scan the marketplace but also to make an appropriate response to emerging changes, while company (C) established a division entitled “business information and research”. This division often conducts business studies and market researches that help the top management to make a number of scenarios for a business prospect. Company (B), in contrast, has made a number of strategic partnering with external companies not only to acquire useful information but also to extend a product portfolio, while company (D) has exploited a number of tools such as a loyalty advantage card, customer surveys, and environmental scanning not only to understand a business environment but also to assess current businesses. In short, the case studies results reveal that the four companies made concerted efforts to gather information from multiple sources. This, in turn, demonstrated that a diversity of information was essential not only for generating successful knowledge and insights but also for stretching out the capability for collective learning.

In the second stage of the organisational learning cycle, integrating new information into the organisational context, a number of mechanisms were utilised to help organisational members function more effectively in an existing work context. These mechanisms were targeted to assist employees to make sense of new information through an existing work

‘peer contact’ mechanism was exploited to encourage professionals to act on shared knowledge.

Encompassing individuals who contributed to making collective meaning in the action was another tool that company (A) has implemented to help them learn. This way of practice was obvious in a variety of committees that the company established to strengthen collective learning, while company (B) has created a number of work values that facilitate taking actions on shared meanings. Continuous training and a number of reward schemes were core elements for encouraging professionals to act on a shared meaning. In like manner, company (C) has considered acting on collectively interpreted meaning as an essential criterion for promotion and compensation decisions. The top management commitment and an internal atmosphere supported organisational members to act on an interpreted meaning. In contrast, organisational members in company (D) were required to take their actions based on what the top management decided. Besides, they were unable either to think outside a formal management system or to challenge the reasoning behind a planned action. Organisational members were expected to act in ways that did not make sense to them. Spreading out such logic in the entire organisation has created a situation in which organisational members become skilled in following a defensive reasoning.

The second main part of the chapter is devoted to introduce a proposed framework for managing organisational learning. This framework is an attempt to broaden the conceptual perspectives that reside in Dixon’s (1994) organisational learning cycle. By this means, this framework can be better placed to describe the phenomenon under investigation. Not only does the value of this framework emerge from a number of common ideas raised by participants but also it develops from relating these ideas to the literature. The value of this framework also rises from its potential implications for organisations and from its contribution to theory. This framework addresses the various aspects that enhance the capability for organisational learning to create a competitive advantage. In particular, it deals with the connection between the organisational learning processes, transformative capacity, core competence, and competitive advantage. It works from the assumption that the ability of organisations to achieve long-term business success relates to their collective capacity to assimilate and take advantage of collectively developed knowledge. For organisations to maintain sustainable competitive advantage, they should continuously learn to strengthen their collective knowledge, as well as, they should secure the competence aspects that make such knowledge difficult to transfer outside the organisational boundaries. That means, organisations must continuously learn to enhance their core competences and so, to sustain a competitive advantage.

reading of case study (D) explained that organisational members were not allowed to challenge the dominant reasoning of a value-based management. This has prohibited collective learning to take place because such dominant reasoning was not subjected to real confrontation. Most conclusions that are built on such dominant logic were not confronted and thus, they were at best symptomatic ideas. The top management was unable to test these symptomatic ideas against the logic of others that built different views.

While company (A) has placed much value on each organisational member's contribution to make a collective interpretation from information, it has exploited information networks and discussion groups to help organisational members not only to put in their perspectives but also to challenge the ideas of others. In like manner, company (B) has exploited a number of processes to help individuals share their views regarding new information. Company (B) has developed a 'think tank' approach to provide professionals with an opportunity to make a collective meaning from information. It has also established a 'company online' mechanism to help professionals solve problems together. The company has made concerted efforts to strengthen professionals' capacity to build a collective meaning structure. Similarly, company (C) has profited from its organisational size to make organisational members an important process of what is going on. A close collaboration between the top management and other operational levels in the organisation has enabled organisational members not only to understand the overall business objectives but also to participate in making major decisions and strategies. This has, in turn, created an internal flexibility that has helped the company to respond to external constraints.

The fourth stage, taking responsible action on an interpreted meaning, was achieved by a number of initiatives. These initiatives were targeted to bring individuals together not only to act on a shared meaning but also to reflect on their actions. A reflection on an action helps individuals to understand how such action has altered a situation, to comprehend the factors that are exist in that situation, and to generate new information that starts out the organisational learning cycle again. That means, individuals that make an interpretation need to be involved in the action in order to recognise whether their interpretation made sense or not. Acting on a collectively interpreted meaning guides organisational members to respond to a deliberate situation. In such situations, organisational members are aware of what information would best direct their actions and also, how they search for it. However, acting on an interpreted meaning is less influential in a situation where organisational members are required to respond to immediate problems, imbalances, and difficulties. In case study (A), a number of processes were utilised to guide professionals to act on interpreted meanings. A

CHAPTER NINE
CONCLUSIONS

Chapter Nine

Thesis Conclusion

9.1 Introduction.

This thesis has focused on an examination of the practice of organisational learning in terms of the four-step cycle within four different companies. Because the four companies demonstrated an interest in the phenomenon under investigation, they provided an opportunity to explore the basic steps of the organisational learning cycle in a variety of organisational contexts. In view of an exploratory nature of the current study, a number of suggestions can be made at this stage. These suggestions include a summary of the key arguments emerging from the current study. A number of directions for future research in the area are also highlighted. These directions build on the results obtained from the case studies and also, on a number of organisational learning issues raised by participants. After that, some limitations of the current study are addressed. These limitations propose that the research findings need to be interpreted with a great care. The conclusion is, therefore, organised into four main sections. Section one summarises the findings of the study. Section two outlines a number of directions for future research in the area. Section three addresses a number of dimensions that make collective knowledge difficult to imitate. Section four discusses some limitations that are associated with conducting the present study and hence, need to be kept in mind when interpreting its outcomes.

9.2 Summary of Findings.

The current study has examined the practice of organisational learning in four different organisational contexts. Examining the practice of organisational learning was targeted to explore a variety of approaches that the four organisations have implemented to create the capability for organisational learning. Along these lines, the thesis has examined the basic steps that these organisations have experienced to develop the organisational learning cycle. The investigation was expanded to incorporate the main characteristics that describe each organisation's approach to organisational learning. The examination has also discovered the ways through which these organisations assimilate and exploit collective knowledge to strengthen and to sustain organisational achievements. Here, the study has primarily relied on informants' views to conceptualise the ways by which these organisations leverage collective knowledge to generate commercial ends. The current thesis was divided into nine main chapters. **Chapter one** was devoted to introduce the thesis aims and background. A brief discussion about the thesis structure and outline was also included in chapter one.

Chapter two was dedicated to examine the literature on organisational learning. Through reviewing the literature on the subject a number of existing gaps were recognised. These gaps included the fragmented nature of the subject itself, the fact that insufficient attention is being devoted to the cumulative progress of the field, and the theoretical or descriptive nature of major contributions in the area. In view of these gaps, the key issues and the line of reasoning for this thesis were identified. It was intended to examine the practice of organisational learning in four different organisational contexts in order to answer the following basic questions: How do organisations develop their capability for organisational learning? What are the main features that describe each organisation's approach to organisational learning? What are the main reasons for performing a given set of organisational learning practices within an organisation? How do organisations assimilate and exploit collective knowledge to create and to recognise new business opportunities and ideas? How do organisations initiate their efforts to establish organisational learning and knowledge creation as specific management practices to maintain a long-term business success? Through examining the practice of organisational learning in terms of the four-stage cycle, this thesis sets out to fill three gaps in the field.

First, it complies with the need for rich empirical studies by carrying out an in-depth qualitative study that includes four different companies. *Second*, it meets with the need for a cumulative work on the subject by submitting the basic conceptual steps that exist in Dixon's (1994) organisational learning cycle into an empirical examination. Dixon's (1994) model directs this study to examine the practice of organisational learning in terms of a four-step cycle. *Third*, this thesis extends Dixon's model by linking it to what Garud and Nayyar's (1994) call "transformative capacity" and hence, helps to better understand the latter. Garud and Nayyar's (1994) concept of 'transformative capacity' strengthens the understanding pointing towards the way by which an organisation assimilates and exploits collective knowledge to generate competitive outcomes. In building up the conceptual context for this thesis, chapter two has incorporated a number of subjects. These included a relationship between Dixon's (1994) model and Kolb's (1984) experiential cycle, an explanation of Dixon's (1994) model, the utility of Dixon's (1994) model to the thesis, and a brief discussion on the processes of organisational learning. The chapter also examines the notion of formal learning vs. informal learning. In addition, it touches on the social nature of knowledge production. The various conceptual perspectives that reside in Shrivastava's (1983) two-dimension model were also addressed. Chapter two has also addressed the way in which this thesis complies with the research main questions and objectives.

Chapter three was devoted to set forth the methodological issues involved in the current study. Because of the exploratory nature of the study, this thesis has relied on the multiple case study approach as the main research methodology. By its nature, the case study approach incorporates theory building and involves a process of inductive reasoning. The case study approach creates its generalisation around theoretical propositions and not around populations. That means, the examiner generalises from one case to another on the basis of a fit to a fundamental theory and not to a large population. In order to overcome traditional criticisms of the case study approach, a case study design and a number of criteria for establishing an empirical quality were set out. Data were collected through in-depth interviews, informal interviews, documentation, and observation. The study has also relied on an interactive model to analyse the qualitative data. In order to enhance the reliability and consistency of the emerging results, data were triangulated across and between and according to the data sources.

Chapter four was devoted to examining the practice of organisational learning in terms of the four-step cycle in company (A). In this chapter, the discussion was targeted to describe the different stages that company (A) has experienced to develop the organisational learning cycle. Drawing on managers' perspectives, the discussion was further expanded to conceptualise the way by which company (A) assimilates and exploits collective knowledge to generate competitive outcomes. It is explained that company (A) increasingly places much value on collective learning as an efficient management tool to improve the everyday business operations. The company benefits from a number of core factors in building its capability for organisational learning. These factors include a committed leadership, an internal knowledge base, a supportive culture, a variety of learning tools and facilities, an online technical support, an inter-organisational experience, an effective information technology back up, and useful plans for personnel development. The discussion of case study (A) also reveals that the company accelerates its capability for collective learning via an effective communication system, by enhancing discussion groups on important issues, and by changing work routines as new business challenges emerge. The company has gone through a restructuring process, which resulted in developing a new management position that was named 'an advantage training manager'. This change has quickened the transfer of new information throughout the entire organisation. The discussion also states that company (A) increasingly exploits organisational learning to strengthen and to sustain competitive results. These competitive results produced uniqueness in products and services, a difficult to match experience, unique sales' models, and an internal ability to leverage collective knowledge into a wide variety of markets.

Chapter five was devoted to examining the practice of organisational learning and its competitive consequences within company (B). The case study (B) provides a good example of an organisation that successfully exploits advanced information technology to create a knowledge-friendly culture, a knowledge-friendly culture in which organisational members share knowledge and best practices all over the world. Such a culture increasingly strengthens the basic steps of the collective learning cycle. The company sets out to make optimal use of best available information technology in order to fulfil the information needs of both the organisation and worldwide clients. The company has put into action a number of computer-based learning tools incorporating a global-best practices knowledge base, an online electronic notice board, a search manager Intranet, a business radar, a gateway talk centre, a Tax And Legal Knowledge or TALK, and a Tax Data Retrieval System or TDRS. These tools are often targeted to help organisational members all over the world to understand emerging market changes and consequently, to deliver services on the promise. Organisational members often share knowledge and experience via something called a 'search agent methodology'. A search agent methodology strengthens the knowledge sharing capacity of the entire organisation.

Organisational members are supported not only to plan their learning activities but also to work in teams through the use of a 'premium community of practice' paradigm. A premium community of practice allows organisational members that share similar interests and backgrounds to exchange knowledge around particular business issues. The company also helps organisational members to generate new ideas and to resolve emerging problems through a process of brainstorming entitled a 'think tank'. Collective learning is facilitated through shared values and routines that organisational members experience from joining the company workforce. Continuous training, a reflection on past experience, and a reward scheme are all factors that were explored to empower the capability for organisational learning inside company (B). Organisational learning has strengthened the company to sustain competitiveness by establishing better relationships with clients, by generating new ideas, by reinforcing the one firm concept, by adopting a proactive methodology with clients, by helping clients to do things differently, and by allowing those clients to carry out major changes in their businesses.

Chapter Six was devoted to explore the practice of organisational learning inside company (C). Company (C) has chosen organisational learning as a strategic tool to deal with globalisation and increased competition in the domestic market (Shehata, 2000, p 277). Along with the support of a number of worldwide partners and affiliates, company (C) places much value on developing a knowledge structure on an ongoing basis. This sort of

collaboration enhances the company to exchange knowledge and best practices with these partners and affiliates. Company (C) strengthens organisational members to learn and to think up new ideas via a Continuous Improvement Process (CIP) mechanism. The CIP mechanism is targeted to eliminate all sorts of waste and non-value added activities. The company relies on a number of core elements to build the capability for organisational learning. These core elements include a set of information networks, online access to dealers and suppliers' information bases, teamwork, a prime objective scheme, a merit scheme, regular reflection on past experience, an external feedback system, and a culture that reinforces learning. The reading of the case study (C) also explains that the company traces its competitive advantage to organisational learning in a variety of ways. Learning leads to cost savings, learning leads to an efficient time management, learning leads to quality improvements, learning leads to better customers' services, and learning creates internal knowledge that is hard to find elsewhere in the domestic marketplace.

Chapter seven was devoted to studying the practice of organisational learning within company (D). The reading of the case study (D) reveals that the company builds its capability for organisational learning around a formal management system of value-based management. The top management structures the knowledge acquisition, integration, interpretation, and dissemination activities in view of the value-based management principles. The discussion of chapter seven demonstrates that although the formal management system supports knowledge acquisition and integration activities, organisational members face a number of difficulties in making collective interpretations from information and in acting on a shared meaning. A large part of these difficulties resides in the fact that the top management does not recognise that there are other managers in different business areas, who have various mental models and may offer other valid interpretations. In company (D), an implementation of a value-based management has created a work context in which organisational members neither understand the reasoning behind major decisions and actions nor maintain an opportunity to challenge such reasoning.

The value-based management, as a dominant logic, has restrained the capability for collective learning inside the company through restricting its knowledge sharing capacity. Because of the governance of such dominant logic in the entire group, not only do organisational members become limited learners but also become skilled in following a defensive line of reasoning. The predetermined systems, procedures, rules, and regulations of such formal management system dictate the flow of information. The top management maintains a considerable power for making strategic decisions in relation to other operational management levels. Despite the fact that organisational learning does not completely take

place, the company has recently carried out a number of successful knowledge projects. These knowledge projects have yielded a set of commercial outcomes to the group. These projects were targeted to strengthen and to sustain the organisational achievements in different ways. These include cost reduction, generation of new business ideas, building an excellent corporate image, nurturing a new product development process, creativity, delivering products on time, and customer-satisfaction.

In **chapter eight** a process of cross case comparison was exercised to explain and to compare the results obtained from the four case studies. The chapter began by discussing the basic steps of the organisational learning cycle across the four case studies. This section reveals that each company has implemented a unique methodology to create the capability for organisational learning. Company (B), for instance, makes an acquisition of external information a responsibility of each organisational member, while companies A, C, and D allocate the collection of an external information to a particular division. Company (A) makes an extensive use of discussion groups to integrate information into the whole work context, while company (B) utilises a premium community of practice methodology to integrate information into the entire organisational context. In contrast, company (C) increasingly integrates information in relation to a decision area's information needs and an internal work environment.

Alternatively, company (D) integrates information around a commitment to an overall objective of the business. It is also found that the four companies differ in terms of the ways that they employ to make a collective meaning from information. Company (C) provides various operational levels with an opportunity to participate in major decisions, while company (D) reinforces organisational members to make an interpretation from information in view of the value-based management principles. It can be seen that the compatibility between the characteristics of organisational learning and assumptions of a formal management system is important. Company (B) creates a learning environment in which organisational members work together to make meanings from information. Alternatively, company (A) exploits a committee system method to generate collective solutions and to tackle emerging business problems. A reward scheme and a continuous training are core tools that companies A, B, and C exploit to encourage organisational members to act on a shared meaning. Taking an action based on a shared meaning is one of the key problems that company (D) has to get over.

The most interesting point to be noted here pertains to the role of control that the top management practises to monitor learning objectives. On one hand, the top management,

within company (D), places much value on control to ensure that organisational learning activities comply with the prescribed assumptions of a formal management system. This way of practice has limited learning since organisational members should always respond in a way that meets with the top management wants. In contrast, the top management, within company (B), provides organisational members with an opportunity to structure their learning practices and objectives in a way that they decide on together. The two cases represent two different extremes and therefore, they make the tension between organisational learning and control an important issue. On the one hand, company (D) overemphasises control through promoting learning via a predetermined mechanism of a value-based management. On the other hand, company (B) places much emphasis on learning and undervalues control. This has, in turn, undermined the company's ability to monitor important information.

Argyris and Schon (1983, p 3-4) pointed out that 'to focus on learning without also taking into account legitimate need for control is to embark on a romantic and usually fruitless exercise. To deal with the troublesome consequences of existing systems of control through the very common managerial strategy of increased control is to guarantee the slow but inevitable deterioration of organisational performance'. The above discussion proposes that control and politics are important issues on which not only practitioners but also the literature on the subject appear to be confused (Coopey, 1996; Correl & Gregoire, 1998). Incorporating the diverse features that describe each company's approach to organisational learning has therefore extended chapter eight. Chapter eight has also incorporated a proposed framework. This framework has strengthened the basic conceptual perspectives that reside in Dixon's (1994) model by linking them to Garud and Nayyar's (1994) concept of 'transformative capacity'. Not only does this framework depend on a number of organisational learning issues raised by participants but also it relates these issues to the literature. Chapter eight also draws together a number of concluding remarks that emerge from examining the basic steps of the collective learning cycle in four different organisations. **Chapter nine** briefly discusses the findings of the existing study. It also provides a number of directions for future studies on the subject, as well as, a number of limitations of the existing study, which were identified. The chapter also offers a number of implications for management practice.

9.3 Directions for Future Research.

The current study has examined the basic steps of the organisational learning cycle in four different organisational contexts. However, it can be claimed that this study has

raised more questions than it has answered. Below, there are some areas in which the potential for future research can be seen.

- (a) The results obtained from the case studies demonstrate that organisational learning is increasingly seen as a key determinant for a sustainable business success. To foster and to strengthen the capability for organisational learning, managers need to understand the learning processes that make an organisation a successful one. Nevertheless, there are still several questions regarding the nature of a relationship between collective learning and competitiveness that remain unanswered. Scholars are thus required first to find a theory, which explains the various elements of this relationship and second to explore the concepts and tools that can be used to operationalise this relationship. Two main challenges face scholars that intend to examine that relationship. One challenge reveals that although a large number of scholars observe the importance of collective learning to organisations, it is very difficult to relate collective learning to an economic value. This may revert to the nature of learning as a continuous process. This nature makes the learning process difficult to measure (Lahteenmaki *et al.*, 1998; Yelle, 1979). Sims and McAulay (1995, p 6) pointed out that 'learning may last, but only (like fish) if it is still alive, which means that learning only lasts if it is still in transition, in a state of development and change. By the time it has been caught, fixed or measured it is dead, and will not keep. If we can measure it, it is no longer learning'. The other challenge emerges from the dynamic nature of a new competitive landscape (Bettis & Hitt, 1995; Donovan, 1997). Such a dynamic nature brings into the light too many variables and too many interrelationships that may describe a successful competitive advantage. Learning may only represent one of these variables (Epple *et al.*, 1996; Tsang, 1997).
- (b) The current study has integrated a number of conceptual perspectives, which appeared in the literature and used them as analytical instruments for an empirical examination. Linking current theories of organisational learning together and submitting them into an empirical examination represents another important area that opens opportunities for further research. This will give scholars a better conceptual basis for exploring empirical questions in the field and for integrating these theories into a unified paradigm. By this means, scholars will be better placed to refine the existing theories and concepts of the field.
- (c) The current study has proposed a framework for managing organisational learning. This framework should be treated as an exploratory attempt and hence, it should be submitted

to further refinement via an empirical examination, an empirical examination that surveys a large number of companies.

- (d) The current study has explored the basic steps of the organisational learning cycle in four different organisational contexts. An important issue that was discovered during the course of this study is the relationship between control and organisational learning. It can be claimed that the conversion of individual knowledge into organisational knowledge base is mediated by a number of social and political variables that need to be closely examined. Hence, the influence of power and politics on organisational learning is another crucial area that needs further research.
- (e) The current study has explored a number of information technology-based tools that strengthen an organisation's capacity for organisational learning and for knowledge management. However, the current study has devoted a little time to examine these tools in detail. So, the role of advanced information technology in creating the capability for organisational learning is an area that needs future examination, particularly, this area of research is marked by a lack of rational conceptual models (Andreu & Ciborra, 1996; Boisot, 1995; Edvinsson & Sullivan, 1996; Hine and Goul, 1998; Powell, 1998). The possibility of exploiting hypertext technology to convert tacit knowledge into codified knowledge is also another subject for future research. Can this technology facilitate the transfer of global knowledge and best practices across different countries? How does information technology support knowledge management activities in an organisation?
- (f) Throughout the course of this study, organisational culture was explored and emphasised as an essential factor that strengthens and promotes organisational learning. Factors such as top management commitment, employees' involvement and attitudes to learning, and reward schemes were described as critical elements to build up an organisation's capability for collective learning. Hence, discovering the basis for an effective knowledge friendly culture is an important issue that needs to be confirmed through future empirical research.
- (g) Distinctive knowledge that results from organisational learning can be leveraged to sustainable competitive advantage. To achieve this, organisations need to invest in a number of core dimensions that make this knowledge difficult to trade outside the organisational boundaries. Four major dimensions of knowledge were explored to achieve this objective. The four dimensions of knowledge include tacitness, complexity, systemicity, and specificity. A number of potential opportunities for carrying out a

& Williamson, 1994; Wernerfelt, 1984). The emerging framework of this study places much value on four characteristics that make collective knowledge difficult to trade outside the organisational boundaries. These four characteristics will be discussed as follows.

9.4.1 Tacitness/articulation dimension of knowledge.

Tacitness is almost always included in all of the skills required to create organisational knowledge (Myers & Davids, 1992; Polanyi, 1958). The processes of organisational learning participate in producing such tacitness, since it is contended that tacitness is an implicit accumulation of skills that result from learning practices within an organisation (Spender, 1996a). Tacit knowledge can be described as 'probably disorganised, informal and relatively inaccessible, and as such it may not be suited for direct instruction' (Wanger & Sternberg, 1985). Tacit knowledge can also refer to 'the implicit knowledge used by organisational members to perform their work and make sense of their worlds' (Choo, 1998). It can also refer to 'things that are not said because everybody understands them and takes them for granted' (Boisot, 1998). Or it can refer to 'things that are not said because while some people can understand them, they can not costlessly articulate them' (Nonaka & Takeuchi, 1995). Tacitness of organisational knowledge emerges from three different incidents (Winter, 1987). *First*, it can arise from the coalition of an individual with an organisation, for whom the knowledge of inquiry is tacit. *Second*, a changing nature of relationships that enable an organisation to operate is not prominent to most litigants in the organisation. *Finally*, the organisation's upper management is unacquainted with the detail of what happens when their decisions are accomplished. It is also viewed that skills, which govern most of the organisational activities and are considered to be sources for a competitive advantage, are covered up in tacit knowledge (Hall, 1994). Tacit knowledge is difficult to imitate particularly when it is embedded within the organisation's dynamic routines.

Tacitness of knowledge raises barriers for competitors when they attempt to transfer successful knowledge. It can be claimed that two things are causing a difficulty for competitors to imitate a successful competitive advantage (Grant, 1991). The first thing is of that relating to the information available not only for clarifying but also for directing the transfer of a successful competitive advantage. The second thing is one of that relating to a strategy duplication problem. This problem unsettles the way by which competitors compile the resources and competences that are needed to transfer a competitive advantage. It can also be argued that in the sense of imitating a successful competitive advantage, a degree of tacitness may differ from one firm to another. Therefore, competitors' capacity to imitate a successful competitive advantage differs from one situation to another. Nevertheless,

research in this area can be seen. Not only does understanding these dimensions help us to discover the link between the organisational learning literature and knowledge management literature but it also strengthens the efforts towards establishing the foundation for a theory of competitive advantage in the information era. Because this study has devoted a little effort to examine these dimensions thoroughly, an explanation for their conceptual grounds will be provided in the following section.

9.4 Developing the Competence Aspects of Collective Knowledge: Looking ahead.

This section addresses a number of dimensions that an organisation should maintain to leverage collective knowledge to a sustainable competitive advantage. Because Dixon's (1994) model pays no attention to link collective learning to competitive ends, the emerging framework of this study proposes a route through which an organisation can leverage collective knowledge to strengthen and to sustain a competitive advantage. The results obtained from the case studies reveal that internally developed knowledge plays an important role in generating a competitive advantage. The literature also demonstrates that distinctive and unique knowledge is increasingly considered to be an efficient tool for competition (Galvin, 1996; Graham & Pizzo, 1997; Grant, 1996; Hargadon, 1998; Kim & Mauborgne, 1998; Morton, 1991; Pearson, 1992; Spender & Grant, 1996; Teece, 1998). Following Barney (1991), the current study views that for an organisation to maintain a competitive advantage from collective knowledge, this knowledge should meet two conditions. *First*, this knowledge must be valued in the sense that it enables an organisation to generate business opportunities and ideas. *Second*, such knowledge should be possessed by a small number of organisations. An organisation creates the competence aspects of collectively developed knowledge through organisational learning (Kolb *et al.*, 1994; Prahalad & Hamel, 1990; Whitaker, 1996).

This study thus contends that organisational knowledge that develops from collective learning can be perceived as a core competence through which an organisation strengthens and sustains a competitive advantage. Such a notion suggests that an organisation should pursue a competitive strategy within the context of its own competences and hence, it should avoid extending its activities beyond such context (Barney, 1986; Barton, 1992; Bogner & Thomas, 1994; Chiesa & Barbeschi, 1994; Klein & Hiscocks, 1994; Lei *et al.*, 1996; Wernerfelt, 1989). The literature provides a number of perspectives regarding the characteristics that make an organisation's competency imperfectly imitable (Andreu & Ciborra, 1996; Collis, 1996; Grant, 1991; Hamel, 1994; Helfat, 1997; Javidan, 1998; Klavans, 1994; Krogh & Roos, 1996; Nanda, 1996; Reed & DeFillippi, 1990; Verdin

tacitness of knowledge, whatever its degree, creates barriers for competitors to understand the cause-effect relationship of an organisation's actions (Leonard & Sensiper, 1998). As a result, the organisation can be better placed to sustain a successful competitive advantage for a long period of time. It can thus be proposed that the more the tacit the knowledge, the greater the difficulty for competitors to imitate it.

9.4.2 Complexity/simplicity dimension of knowledge.

The complexity of organisational knowledge is another facet that makes it more difficult for competitors to imitate. Winter (1987) contends that a complexity of knowledge results from an interaction of various skills and assets when organisational members perform an action. He identifies that a complexity describes the range of interrelationship between skills and knowledge-based competencies. Despite the differences in the degree of complexity between an organisation's competences, complexity is increasingly considered to be a key dimension that makes collective knowledge difficult to transfer (Garud & Nayyar, 1994, Hall, 1997; Winter, 1987). A complexity of knowledge generates barriers that make such knowledge hard to trade outside an organisation's boundaries. An organisation's core competency should be difficult for competitors to imitate and it will be difficult if it is complex (Prahalad & Hamel, 1990). A complexity of knowledge, which is embedded in an organisation's decision-making process and action, increases barriers to imitation not only through a number of skills and processes that construct organisational operations but also through a set of interpersonal relationships between organisational members.

Since complexity makes collective knowledge difficult to transfer outside the organisational boundaries, this knowledge becomes a core source upon which a sustainable competitive advantage can be based. The complexity dimension of knowledge affects the amount of information that competitors need in order to describe and to copy it (Winter, 1987). Therefore, the greater the complexity of knowledge, the less the breadth and depth of information that most organisational members hold of the overall performance requirements. Such complexity prevents competitors from acquiring an organisation's collective knowledge when they hire some of its employees. Complexity of knowledge can be found in many forms including reorganisation procedures, co-ordination of various skills, and an interaction between different organisational members to generate new products and processes. For instance, the more complex the product/processes, the greater the logistic problems of reworking existing procedures, policies and programmes. These policies and programmes bring together the different activities that explain the means by which an organisation maintains a sustainable competitive advantage. It should also be noted that complexity itself is not a direct mechanism to a competitive advantage, rather it is a way in

which an organisation coordinates its skills and resources portfolios. It can be suggested that the more complex the knowledge, the greater the difficulty for competitors to imitate it.

9.4.3 The systemic dimension of knowledge.

Knowledge might be embedded in a large system (systemic). It might be also independent. Systemic knowledge has to be described in relation to other knowledge vectors. In contrast, independent knowledge can be described by itself (Garud & Nayyar, 1994; Winter, 1987). For instance, a single module in a microcomputer qualifies intuitively as an element of a system, while a pocket calculator can stand alone as an independent element. The independent/systemic dimension of knowledge must be distinguished in relation to a relevant context. This point can be illustrated by a microcomputer example (Winter, 1987). The microprocessor used in personal computers is, on the one hand, a part of a larger system, the computer. In contrast, it could also be considered as a relatively independent knowledge vector because its progress occurs independently from other components of the computer. A systemic nature of knowledge means that competitors need a large amount of information to explain its different items. A systemic dimension of knowledge creates difficulty for competitors in fully understanding the different elements that construct successful knowledge. An element of a system may not be helpful if it is transferred without the rest of the system (Winter, 1987). A systemic nature of knowledge demonstrates that knowledge is distributed across different elements of a system and hence, it is difficult, even for organisational members, to transfer it. An organisation needs to establish a number of work relationships that strengthen organisational members to function in a co-ordinated way. These relationships must be, at most, understood by participants in the organisation. An organisation also needs to avoid relying on an independent person who has all the detail of a specific job. In so doing, the organisation will be better placed to avoid a risk associated either with personnel turnover or with an individual's attempt to trade important knowledge to competitors.

The systemic dimension of knowledge also broadens the resource-based view of the firm as a collection of asset stocks and flows (Dierickx & Cool, 1989; Sanchez & Heene, 1997). In other words, an organisation should organise tangible and intangible assets through a strategic logic to achieve organisational objectives. These objectives should also be co-ordinated via different management processes to leverage new competencies (Sanchez & Heene, 1996). An organisation will thus be capable of recognising the managerial cognitions that affect the kind of assets and flows that need to be accomplished. It will also be able to identify the managerial co-ordination abilities that are needed to employ its resources and to manage its assets flow. Moreover, an organisation can develop managerial abilities that

support organisational learning and knowledge management efforts. These efforts, in turn, help the organisation to meet changes that happen in its assets stock and flow. A systemic dimension of knowledge makes it difficult for competitors to match because the systemic nature of knowledge requires a transfer of several interrelated knowledge vectors over time. A systemic nature protects organisational knowledge from imitation and hence, it strengthens the organisation to sustain a competitive advantage. It can thus be proposed that the more systemic the knowledge, the greater the difficulty for competitors to imitate it.

9.4.4 Specificity/accessibility dimension of knowledge.

Another dimension of knowledge is whether it is an organisation specific or whether it is accessible to a large number of organisations. Specificity of organisational knowledge refers to the extent to which such knowledge is typical to the organisation. Although organisation specific knowledge can easily be transferred across time and space, which might reduce its strategic value, it must be maintained (Garud & Nayyar, 1994). Organisation specific knowledge is valuable in two main cases. *First*, an organisation's specific knowledge should be maintained when the organisation maintains an ability to prevent rivals to access it. *Second*, an organisation's specific knowledge should be kept when it relates to the organisation's complementary resources. Because it will be of little value to other organisations that do not have similar resources, an organisation's specific knowledge is difficult to trade outside the organisation without a real cost. Organisational knowledge that resides in an organisation's reputation, image, new product planning process, relationships with suppliers and clients are examples of knowledge specificity. In addition to complexity and tacitness, this knowledge is specific to the organisation.

An organisation's specific knowledge strengthens the organisation to secure a competitive advantage because it is difficult for other competitors to transfer it. Such specificity forms the end purpose to an organisation's competitive strategy that is difficult for other competitors to match over a long period of time (Winterscheid, 1994). Specificity of organisational knowledge decreases competitors' abilities to imitate it, particularly, if it is created and developed within the organisation. Because the cost associated with an imitation process is very high, there is a scarcity of information, and a possibility of productivity decline, so it will be difficult for competitors to transfer it. As knowledge becomes an organisation's specific competency, it will be difficult for competitors to imitate it and consequently, this knowledge becomes a source for a sustainable competitive advantage. In conclusion, it can be argued that to make collective knowledge more sustainable over a long period of time, besides its tacitness, complexity, and systemic nature, it should be an organisation's specific in a way that makes it difficult for other competitors to imitate. It can

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can be validated through future empirical study. The results obtained from the four case studies can therefore serve as a basis for developing the hypotheses of a new study.

- (c) This study was carried out in four companies, three are located in the UK and one is located in Egypt. On the one hand, this can serve as a basis for comparing the practice of organisational learning in two different cultures. On the other hand, the variation in internal and external business environments creates a situation in which the transfer of successful learning practices becomes irrelevant. This means that in each country, there are different factors that impact on organisational learning and its implications. Each organisation should thus create the organisational learning mechanisms that are appropriate to and comply with its business environment.
- (d) In this study, the actual gathering of the field data was carried out during the period of August 1998 to March 1999. A number of changes had taken place in the four companies during the last few months and that must be kept in mind when interpreting the research findings.

9.6 Conclusions: 'So What?'

The organisations that have allowed the examiner to narrate their stories in this thesis, company A, company B, company C, and company D, demonstrate how increasingly important organisational learning can be for long-term business success. It has been discovered that these organisations have achieved a number of commercial outcomes by finding ways to assimilate and to exploit collective knowledge. These organisations were deliberately chosen because of their interest in the subject of this study. The basic conceptual perspectives that exist in Dixon's (1994) collective learning cycle were employed to understand how and why these organisations learn in terms of a four-step cycle. In particular, the processes of the organisational learning cycle have allowed the examiner to discover how these organisations spread new information throughout an entire organisation, how they integrate this information to the organisational context, how they design reward schemes that promote collective learning, how they engage organisational members in making major decisions, and how they encourage those members to act on an interpreted meaning.

A variety of cases were discussed, each was reported in substantial detail and with attention to the context in which each organisational learning cycle was developed. A considerable attention was devoted to maintain the sentiments and values of informants involved by using their actual words. In the course of this study, it has been discovered that Dixon's (1994) model provides a useful basis to understand how participant organisations

thus be suggested that the more the specificity of organisational knowledge, the greater the difficulty for competitors to transfer it.

9.5 limitations of the Study.

This section touches on a number of limitations that restrain the generalisation of the study findings. These limitations roughly reflect the general problems of conducting research in the organisational learning area. These limitations should be taken into account when interpreting the findings.

- (a) The methodology of the current study has been the case study approach. Primarily, the case study approach has treated the whole organisation as a unit of analysis. This approach to research has created a number of inadequacies. *First of all*, it has restrained the size of the sample that the examiner expected to study. The case study approach has required the gathering of in-depth data about the many aspects of the phenomenon under investigation. This has, in turn, forced the examiner to limit the study to four case studies. The large amount of data to be collected from each organisation, the difficulty for getting access to many organisations, and the limited time available to the examiner were key reasons for limiting the sample. Besides, the examiner has left out three companies from the sample due to the unsatisfactory number of interviews that were conducted in each of these companies. *Second*, the use of the organisation as a unit of analysis to examine the basic steps of the organisational learning cycle has led the examiner to place much value on relevant processes and variables. This has, in turn, created a situation in which the examiner had to ignore irrelevant variables and processes. In a general sense, the current study has sought to avoid these problems by placing close focus on organisational learning as the research phenomenon. This has resulted in gathering relevant data from a committed number of participants.
- (b) Another concern, which this study has in terms of the results obtained from the four case studies, exists in the absence of cause-effect relationship. Through the course of this study, an illustration of organisational learning and competitive advantage was offered without implying a causal relationship. Yet this study has not established a measurement to explain the extent to which a competitive advantage was a result of collective learning. Having mentioned that, it should be acknowledged that this study sought to utilise the case study approach to explore the ways through which a number of organisations assimilate and exploit collective learning to achieve a competitive advantage. The case study approach was utilised to explore variables, concepts, and propositions that can be described as, at best, the base for a potential model, a model that

learn in terms of a four-step cycle but much less about why they learn. Consequently, an attempt was made to extend Dixon's (1994) model by linking it to Garud and Nayyar's (1994) concept of transformative capacity aiming at understanding why these organisations learn. This attempt has resulted in developing a framework that intends to articulate the dynamics of the phenomenon under investigation. Not only does this framework depend on several examples of the ways in which organisations have assimilated and exploited knowledge to generate competitive ends but it is also supported by an articulation of the theory related to transformative capacity, core competence, and competitive advantage. This framework puts forward a number of ideas and propositions that need to be refined through future research. A number of directions for future research in the area are also derived from the case studies. This study indeed intends to suggest a number of learning points for management learning practice. To promote for learning and avoid the continuation of a situation where companies just have achieved an inefficient investment of information infrastructure, the following points should be taken into consideration by managers. These points are built upon a number of general principles emerged from examining four case studies.

- (a) ***Personnel turnover.*** Throughout the course of the empirical phase of this research, personnel turnover was cited as a critical factor that impact unconstructively upon collective learning. Great value should hence be attached to the influence of personnel turnover upon the knowledge sharing capability of an organisation. Not only should the management examine the cause of personnel turnover at regular intervals but also it should place much emphasis upon protecting knowledge owned by key individuals inside each individual division. It is important to recognise and further, to protect valuable knowledge from getting wasted through personnel turnover. The systemic feature of collective knowledge is thus considered to be an effective tool that can be employed to protect useful knowledge from imitation.
- (b) ***Information technology.*** Investment plans in information technology should be targeted towards widening individuals' participation and should facilitate and enable learning opportunities inside an organisation. In other words, it is important to ensure that investments made to information technology do support people who are actually working in a particular community. Rather than to a large organisation, such as these of case study D, where these investments may go into overhead and end up supporting not people but infrastructure. Case study (D), one of the companies examined in this study, has experienced a situation like this with an initial investment of £ 35 million in a technology system named CC mail. Informants interviewed in this study claim that such

a system does not allow them to communicate and hence, they seem to have little interest in it. That means, technology has to be married with individuals' needs of knowledge acquisition, processing, and sharing. One informant puts it this way: 'a learning company is about not just creating the culture that allows talking but also creating the organisational support that allows people to talk and the right people to talk to'.

(c) **Organisational culture.** During the course of this research, organisational culture has been addressed as a significant prerequisite for creating a learning organisation. The support of key individuals, employees' participation and attitude to learning and a clear reward scheme are all mentioned as core elements in building a learning company. The management should thus promote an overall understanding throughout the whole organisation of why a knowledge-friendly culture is very much important and beneficial to the business. Informants interviewed in this study view that senior executives support is considerably important, that is, if senior executives are doing it the rest of a company will follow but if senior executives are saying it but not doing it the rest of a company will not follow. In so doing, people will be very willing to share what they know. Initiatives to widen people's participation should thus rest upon a comprehensive support and guidance from key managers. Those managers should provide practical and learning supports to help individuals move successfully along an existing vision. In such a case, those individuals should be given an opportunity to set their own learning agenda. The case studies examined in this research demonstrate that the space available to individuals to decide their learning objectives can have a greater and more positive impact upon the overall range of outcomes emerge from collective learning.

(d) **Reflecting on prior learning.** People need to reflect on prior learning at certain stage and to identify a number of outcomes that impact upon the future development of the business. Reflecting on prior learning situations has been addressed as a significant process to widening people's participation and as a result, they can be better positioned to update their skills and knowledge. It is thus important that people who engage in learning activities to be given an opportunity to reflect on prior learning whether it is considered to be a success or failure. An explicit policy on reflection matter can help to focus mind on what is required. Reflecting on prior learning should hence be a part of an existing learning approach so that individuals do not have to reinvent the wheels time and again. The opportunity for reflection on prior learning is thus an essential prerequisite for learning.

- (e) ***Learning from failure.*** Informants interviewed in this study acknowledge the notion that senior executives should learn to accept failure. In such a situation, not only does the management need to learn accepting failures and mistakes but also it needs to consider mistakes as normal practice and to encourage people learn from that. It is important that people learn from mistakes so that they do not have to repeat them. The management should therefore open up opportunities and challenges on the basis of learning from unconstructive experience. Unconstructive practice that is emerged in a particular community of practice should also be shared as widely as possible through existing formal and informal networks. That is, people in the organisation need to be informed about what is relevant and important to them. Such a facet of learning, that is identifies clearly in the examination of case study C, often encourages individuals to explore many ways to deal with the situations they faced. People naturally learn best when they are able to ask questions about why they understood the situation as they did and whether their thinking approach was true or false.
- (f) ***Formal vs. informal learning.*** During the course of the study informants repeatedly referred to social networks of relationships as an essential factor for learning. The examination of four case studies has demonstrated the fact that collective learning can take place either as result of a number of programmes designed to help individuals follow a learning approach or as a result of unintentional efforts that often derive from any social and conversational interaction. Although an intervention and help of senior executives often encourage learning it is insufficient for an organisation to rely solely on such a formal mechanism to learn. The examination of case study (D), for instance, has led to the conclusion that provision of formal and informal learning opportunities at the same site is far more effective for establishing a learning company. Here, informal learning provides a flexible and responsive environment in which individuals have a very large room to set their own learning objectives and move on them. In such a situation, individuals often construct teams to share a range of knowledge and insights around a particular business issue that concerns the organisation. In contrast, formal intervention often establishes the central policies and principles that guide those individuals in carrying out a particular task. By offering formal and informal learning opportunities at the same site, an organisation can be better placed to develop common knowledge and understanding, to improve communication and social skills of its members, and to widen people's participation in knowledge-related behaviours. Such a combination is seen as a major means for organisations to increase individuals' skills and abilities. Hence, the importance of informal learning to the business should not be underestimated. One reason this study offers for such an emphasis on informal learning

resides in the failure of a formal intervention to instil adequately a permanent capacity to learning. That is, the management must establish the sort of organisational structure that makes the most of participation, human interaction, and flexibility when individuals carry out organisational tasks. By this means, the possibility for collective learning to take place through routine work practices will be maximised. This in turn proposes that the learner's environment is a major determinant in organising a learning project.

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Appendix (A)

A compilation of definitions of organisational learning drawn from the literature

APPENDIX (A): DEFINITIONS OF ORGANISATIONAL LEARNING.

AUTHOR(S)	YEAR	DEFINITION	PERSPECTIV*	NATURE OF STUDY*
Simon	1969	Simon (1969) defined organisational learning as 'the growing insights and successful restructurings of organisational problems by individuals reflected in the structural elements and outcomes of the organisation itself'.	Cognitive and behavioural (potential)	Descriptive
March & Olsen	1975	They assume that organisational members act upon individual cognition and preferences and therefore, their actions form the organisational behaviour. Moreover, external responses to this behaviour affects these cognition and preferences, bringing forth different individual, and as a consequence, collective behaviour. Within this context, organisational learning means 'the adaptation of organisational behaviour to its environment and is caused by individual experience'	Cognitive and behavioural (potential)	Descriptive
Argyris	1977	' Organisational learning is a process of detecting and correcting errors.'	Higher level cognition	Descriptive
Argyris & Schon	1978	' Organisational learning occurs when members of the organisation act as learning agents for the organisation, responding to changes in the internal and external environments of the organisation by detecting and correcting errors in organisational theory-in-use, and embedding the result of their inquiry in private images and shared maps of organisation'.	Single-loop learning: lower level cognition Double-loop learning: higher level cognition	Descriptive
Duncan & Weiss	1979	Dunacn and Weiss (1979) suggest that organisational learning is more than simple aggregation of individual learning namely a process of growth	Cognitive	Descriptive

		<p>or change of a specific organizational knowledge base. This process is stimulated by performance gap, which the authors define as discrepancies between how the organisation is performing and how it should be performing, in the eyes of their decision-makers. Performance gaps indicate failures in the existing organisational knowledge base and stimulate a search for new knowledge that helps to reduce these gaps. Organisational learning thus means 'the process by which knowledge about action-outcome relationships between the organisation and the environment is developed'.</p>		
Hedberg	1981	<p>Learning takes place when organisations interact with their environments: organisations increase their understanding of reality by observing the results of their acts. Often the acts are experimental ones. In other instances, organisations learn by imitating other organisations' behaviour or by accepting others experiences and maps of the environment. 'Learning then involves the understanding of reasons beyond the immediate event, whereas adaptation means defensive adjustment'.</p>	Cognitive and behavioural development	Descriptive
Meyer	1982	<p>Meyer (1982) states that the term "adaptation" can be used to refer to two forms of organisational adjustments. Both of them involve some understanding of action/outcome causal link. The first form is titled 'deviation-reducing adaptation', which occurs when understanding is found within a given framework, a given set of norms. The second form is named 'deviation-amplifying adaptation', which</p>	Cognitive and behavioural (potential)	Descriptive

		involves the creation of new causal relationships built on a new base of assumptions.		
Shrivastava	1983	Organisational learning refers to the process by which organisational knowledge base is developed and shaped.	Cognitive	Descriptive
Daft & Weick	1984	Although, Daft and Weick (1984) do not explicitly make use of the term organisational learning, they implicitly equate the entire process of information processing to organisational learning. Daft and Weick (1984) thus outline that Organisational learning is knowledge about the interrelationships between the organisation's action and the environment.'	Behavioural development (action after interpretation)	Descriptive
Fiol & Lyles	1985	' Organisational learning means the process of improving actions through better knowledge and understanding.' They define two main dimensions that appear with some consistency in the literature. The first dimension deals with the content of learning-i.e., is the adjustment process affecting primarily the organisation's interpretations of events, the development of shared understanding and conceptual schemes among organisational members. The second dimension refers to the extent of cognitive development-i.e., the level at which this development takes place and whether the development redefines rules and changes norms, values and world views.	Cognitive and behavioural (actual)	Review
De Geus	1988	De Geus (1988) defines ' institutional learning as 'the process whereby management teams change their shared mental models of their company, their markets, and their	Cognitive	Descriptive

		competitors'. It is also claimed that institutional learning is much more difficult than individual learning.'		
Levitt & March	1988	'Organisations are seen as learning by encoding inferences from history into routines that guide behaviour.' This interpretation of 'organisational learning' is built-on three key observations from behavioural studies. First, Levitt and March (1988) assume that behaviour in an organisation is based on routines. Second, they presume that organisations actions are history-dependent-that is, routines are based-on interpretations of the past more than anticipation of the future. Third, they accept that organisations are oriented to targets.	Cognitive and Behavioural (potential)	Review
Stata	1989	'Organisational learning is the principal process by which innovation occurs'. Stata (1989) differentiates individual learning from organisational learning. Individual learning is defined as 'a process by which individuals gain new knowledge and insights and thereby modify their behaviours and actions'. Whereas organisational learning is 'a process entails new insights and modified behaviour'.	Cognitive	Descriptive
Meyers	1990	'Organisational learning is the ability of an enterprise to observe, assess and act upon stimuli which are either internal or external to the organisation in cumulative, interactive, and purposeful ways'.	Cognitive and behavioural (potential)	Descriptive
Senge	1990	'Learning organisations are organisations where people continually expand their capacity to create the results they truly desire, where new and expensive patterns of thinking are nurtured, where	Cognitive and behavioural (actual)	Prescriptive

		collective aspirations are set free and where people are continually learning how to learn together’.		
Simon	1991	‘ Internal learning is the transmission of information from one member or group of members to another within an organisation’. Simon (1991) thus argues that organisations learn in only two ways: by the learning of its members, or by hiring members who have knowledge the organisational members do not have.	Cognitive and behavioural (potential)	Descriptive
March	1991	March (1991) draws the attention to the social context of organisational learning. It is suggested that two different features of the social context of organisational learning represent an increased importance. Firstly, the <i>mutual learning</i> , which occurs between an organisation and its members. Knowledge within organisations can therefore be stored in many forms such as procedures, norms, rules and policies. Organisational members can thus accumulate such knowledge over time and learn from each other under conditions in which, relative position is matter. Secondly, the <i>context of competition for primacy</i> is perceived as an important feature.	Cognitive	Descriptive
Lave & Wenger	1991	Organisational learning is a ‘legitimate peripheral participation (LPP) in so-called communities of practice (COPs)’. COPs are the social networks in which the process of learning as participation takes place’.	Cognitive and behavioural (potential)	Descriptive
Brown & Duguid	1991	Brown & Duguid (1991) highlight the issue of searching for a unified working definition, which link between theory and practice. They did view that the traditional learning theory, including that implicit in most	Behavioural (actual)	Descriptive

		training courses, tends to endorse the valuation of abstract knowledge over actual practice and as a result to separate learning from practice, and more important learners from practitioners. They thus argue that the composite concept of learning-in-working best represents the fluid evolution of learning through practice. From this practice-based standpoint, they define learning as 'the bridge between working and innovation'.		
Weick	1991	Weick (1991) rejects the traditional definition of learning as being a mere translation into the organisational context of what is known about individual learning processes. It is claimed that the traditional definition of learning, the combination of same stimulus-different response, can rarely be observed in organisations. Weick (1991) thus, argues that 'individual learning occurs when people give a different response to the same stimulus, but organisational learning occurs when groups of people give the same response to different stimuli'.	Cognitive and behavioural (potential)	Descriptive
Bouwen & Fry	1991	' Organisational learning is the increased process capacity to innovate in the future within that same organisational setting'.	Cognitive	Descriptive
Pedler <i>et al.</i>	1991 & 1989	The learning organisation is 'an organisation that facilitates the learning of all its members and continuously transforms itself'.	Cognitive and behavioural (actual)	Prescriptive
Huber	1991	'An entity learns if through its processing of information, the range of its potential behaviours is changed'.	Behavioural perspective	Review
Isaacs & Senge	1992	' Learning occurs through the resolution of conflicts over different	Cognitive	Descriptive

		ways of dealing with the world'. Isaacs and Senge (1992) view that the central purpose of the learning theory is to provide the decision-makers with new opportunities for learning through conceptualisation, experimentation and reflection that are not easily achieved in everyday management practices.		
Miller & Freisen	1992	'A learning organisation sustains internal innovation with the immediate goals of improving quality, enhancing customer or supplier relationships, or more effectively executing business strategy, and the ultimate objective of sustaining profitability'.	Cognitive development and Behavioural (actual)	Prescriptive
Swieringa & Wierdsma	1992	'The term organisational learning means the changing of organisational behaviour'.	Behavioural (actual)	Descriptive
Pucik	1992	Pucik (1992) addresses the concept of organisational learning from global perspective in that ' organisational learning is driven by teamwork across boundaries, acceptance of risk, and the willingness to invest in new initiatives'. This view addresses that learning in joint ventures firms can be accelerated by common language, the creation of a common strategic vision, a willingness to share information, mutual trust, and the opportunity to observe innovative behaviour.	Cognitive and behavioural (potential)	Descriptive
Argyris	1993	Organisational learning is a 'mechanism to overcome obstacles for organizational change'.	Cognitive and behavioural (potential)	Descriptive
Cook & Yanow	1993	Organisational learning is the 'acquiring, sustaining, or changing of intersubjective meanings through the artifactual vehicles of their expression and transmission and through the collective actions of the group'.	Cultural	Descriptive

Garvin	1993	'A learning organisation is an organisation skilled in creating, acquiring and transforming knowledge, and at modifying its behaviour to reflect new knowledge and insights'.	Behavioural (actual)	Prescriptive
Watkins & Marsick	1993	The learning organisation is defined as 'one that learns continuously and transforms itself'.	Behavioural (actual)	Prescriptive
Kim	1993	Organisational learning is defined as 'increasing an organisation capacity to take effective action'.	Behavioural (actual)	Descriptive
Levinthal & March	1993	' Organisational learning copes with the problem of balancing the competing goals of developing new knowledge and exploiting current competencies in the face of the dynamic tendencies to emphasise one or the other'.	Cognitive	Descriptive
Day	1994	Organisational learning is comprised of the following processes: open-minded inquiry, informed interpretations, and accessible memory.	Cognitive	Descriptive
Dixon	1994	Organisational learning is 'the intentional use of learning processes at the individual, group, and system level to continuously transform the organisation in a direction that is increasingly satisfying to its stakeholders'	Cognitive and behavioural (actual)	Descriptive
Barton	1994	Barton (1994) defines the learning organisation as 'one, which dedicated to knowledge creation, collection and control'. Barton (1994) states that the contribution to knowledge is a key criterion for all activities. Such knowledge is embodied in the physical equipment, processes and in people as well.	Behavioural (actual)	Prescriptive

Slater & Narver	1995	'Organisational learning is the development of new knowledge and insights that have the potential to influence behaviour.'	Behavioural (actual)	Descriptive
Crossan <i>et al.</i>	1995	'Learning is a process of change in cognition and behaviour, and it does not necessarily follow that these changes will directly enhance performance.'	Cognitive and behavioural (potential)	Descriptive
Nevis <i>et al.</i>	1995	Organisational learning is 'the capacity or processes within an organisation to maintain or improve performance based-on experience'. According to this definition, organisational learning is perceived as a system level phenomenon because it stays within the organisation, even if individuals change. This definition considers learning as much a task as the production and delivery of goods and services.	Cognitive	Descriptive
Schwandt	1995	Organisational learning is defined as a 'system of actions, actors, symbols, and processes that enables an organisation to transforms information into valued knowledge which, in turn, increases its long-run adaptive capacity'.	Cognitive and behavioural (potential)	Descriptive
Villinger	1996	Villinger (1996) argues that ' learning in organisations represents the process of developing a potential to improve actions (behaviour) through better knowledge and understanding (cognition).'	Cognitive and behaviour (potential)	Descriptive
Marquardt	1996	A learning organisation is 'an organisation which learns powerfully and collectively and is continually transforming itself to better collect, manage, and use knowledge for success.'	Cognitive and behavioural (potential)	Prescriptive
Cook & Yanow	1996	Cook and Yanow (1996) describe organisational learning as a category of activity that can only be done by a	Cultural	Descriptive

		group. In this context they define organisational learning 'as the capacity of an organisation to learn how to do what it does, where what it learns is possessed not by individual members of the organisation but by the aggregate itself'. That is, when a group acquires the know-how associated with its ability to carry out its collective activities, that constitutes organisational learning.		
Peters & Waterrman	1996	A learning organisation is 'an organisation that experiments more, encourages more tries and permits more failures; it interacts with customer more; it maintains a rich and informal environment heavily laden with information'.	Behavioural (actual)	Prescriptive
Miller	1996	' Organisational learning is the acquisition of new knowledge by actors who are able and willing to apply that knowledge in making decisions or influencing others in the organisation'.	Cognitive and behavioural (potential)	Review
Lipshitz et al.	1998	They defined organisational learning as a 'process of inquiry through which organisation members develop shared values and knowledge based on past experience of themselves and of others'	Behavioural (actual)	Descriptive
Andrews & Delahaye	1999	By extending Fiol and Lyles (1985) definition. They claimed that ' organisational learning is the process of improving actions at the individual, group and organization level through better knowledge and understanding'.	Cognitive and behavioural (actual)	Descriptive
Contu	1999	Organisational learning is a 'pervasive construction for transforming socio-political problems of what many calls post-fordist western societies into technical ones,	Cognitive and behavioural (potential)	Descriptive

		which help managers to enact their role of functionaries, answering to high and usually regarded as unquestionable demands of the globalised economy of the post-modern epoch'.		
Lucas	1999	Organisational learning is defined as 'a process of acquiring knowledge at the individual level, which is disseminated and shared among and between organisational actors, and used in the execution of organisational activities'.	Behavioural (potential)	Descriptive
Matthews & Shulman	1999	Organisational learning is defined as 'meaningful changes in processes, structures, assumptions and concerns connecting individual members'.	Cognitive	Descriptive
Oastra & Strachan	1999	A learning organisation is defined as 'an organisation engaged in effective learning'- that is, one where learning processes interact to produce compatible notions of what must be done, how it must be done, and why, at and across individual and organisational levels'.	Cognitive	Prescriptive
Ruhleder	1999	Organisational learning is defined as 'the process by which organisational members develop new work practices and relationships in response to a changing environment'.	Behavioural (potential)	Descriptive

***Perspective:**

Appendix (A) above classifies a number of definitions taking into consideration whether these definitions intend to achieve cognitive or behavioural changes or both.

- ◆ The *cognitive aspect* of a definition primarily deals with knowledge, understanding, and insights.
- ◆ The above definitions differ in terms of whether the change occurs in actual or potential behaviour. A *potential behaviour change* affirms that lessons and experience acquired by the firm from organisational learning often influence its future behaviour. While an *actual behaviour change* determines whether learning has occurred in organisations or

not. A set of problems, however, emerges if definitions that aim at observing actual behavioural change are adopted. The first problem arises from the time lag between when knowledge is captured and when it is used. The difficulty of establishing connection between learning and change in actual behaviour constitutes a second problem. The complex nature of today's business environments affirms that organisational actions are widely influenced by a number of factors and learning is only one of these factors (Tsang, 1997).

- ◆ Appendix (A) indicates that the mainstream of organisational learning definitions either reside in combining change in cognition aspects along with actual behaviour or change in cognition aspects with potential behaviour.

***Nature of the study:**

The second theme applied to synthesise organisational learning definitions rests upon distinguishing perspective research from descriptive research (Easterby-Smith *et al.* 1998; Tsang, 1997).

- ◆ *Perspective research* on organisational learning adopts definitions that growingly promote actual behavioural change since the target audience, are more likely practitioners. Whereas, *descriptive research* on the subject seeks to define whether learning has transpired in organisations or not (Tsang, 1997).
- ◆ Appendix (A) above demonstrates that there are two streams of research in the literature: '*organisational learning*' and the '*learning organisation*'. Scholars that adopted the former (e.g., Dixon, 1994; Nevis *et al.*, 1995; Miller, 1996) emphasised on studying how does an organisation learn? Whereas those that used the latter (e.g., Garvin, 1993; Pedler *et al.*, 1989; Peters & Waterman, 1996; Senge, 1990) focused on investigating how should an organisation learn? The former aims at theory building and the latter seeks to clarify how learning improves organisational performance. Academia primarily propagates the former and consultants or practitioners mainly promote the latter. The former is analytical and descriptive and the latter is action oriented and prescriptive. The former highlights the analytical study of organisational learning phenomenon- where scholars are concerned with observing and understanding 'that which there' (Easterby-Smith *et al.*, 1998, p 262) whereas, the latter search for the 'aspirational and ideal type of learning organisation'. The former relies upon the normal convention of academic publications either to generate formal theory based on rigorous research or test theoretical propositions through careful research, while the latter relies on rough case study and action research (Easterby-Smith *et al.*, 1998; Tsang, 1997).

Appendix (B)

A compilation of models of organisational learning drawn from the literature

APPENDIX (B): A SUMMARY REVIEW OF ORGANISATIONAL LEARNING MODELS.

SOURCE	LABEL & MEANING	FUNCTION OF ORGANISATIONAL LEARNING*	LEARNING MODES*
March & Simon (1976)	The cycle of organisational learning: The learning cycle can be described as a stimulus-response system in which individuals' actions lead to organisational actions, which evoke environmental response.	Environmental interface: Environmental responses must be reported back to the organisation, where they affect individuals' cognitions and preferences and so influence future actions.	Experimental
Argyris & Schon (1978)	Single-loop learning: lower level cognition Double-loop learning: higher level cognition	Action/reflection: This model is classified as an action/intervention model in that it attempts to assist when help is needed within a set of internal and external organisational relationships to create the capacity for good organisational argumentative.	Analytic
Hedberg (1981)	A Stimuli Response (SR) model suggests the way in which an organisation interacts with its environment.	Environmental interface: This model suggests that learning occurs when an organisation interacts with its environment.	Adjustment learning: routinised Turnover learning: unlearning Turnaround learning: synthetic
Shrivastava (1983)	Typological schema of organisational learning systems: The designed learning systems are particularly arrived at by logically determining the information requirements of the organisation and developing custom accommodated systems and procedures to fulfil these needs.	Integration: Organisational learning is so crucial for the development of organisational strategies and broader organisational changes.	Formal: analytic One-man institution: synthetic Information-seeking culture: experimental Participative: interactive Bureaucratic: structural Mythological: institutional
Daft & Weick 1984	Action after interpretation: An initial attempt, which tends to organise some ideas	Environmental interface: This model pays the attention for the need to scan	Experimental

	about scanning and interpretation behaviour. Learning is thus viewed as a change in behaviour.	external events and translate them into meaning for organisational members.	
Kolb (1984)	The experiential learning model: This model suggests that organisations learn and develop distinctive learning styles through their interaction with environments and through their choice of how to connect to these environments.	Integration: This model views the learning as a multiple-facets process, which has elements of action and reflection, concrete involvement, adaptation, and analytical detachment. They are all essential elements for learning to occur.	Analytic
Fiol & Lyles (1985)	The contextual factors: This model addresses four contextual factors that influence learning. These include culture, strategy, structure, and environment. These factors determine the probability that organisational learning will occur.	Learning, change and environment: Two main dimensions must be considered when modelling organisational learning. First, the content of learning, which might be viewed as the patterns of cognitive association developed by organisational members. Second, the level of learning, which refers to the extent of cognitive development and what the organisation has to do with the level at which this development occurs.	Lower-level learning: institutional Higher-level learning: analytic
Maidique & Zirger (1985)	Internal and external learning: This model introduces an agenda for understanding and managing the new product development process. This process assigns learning and communication at the centre stage.	Action/reflection: This model focuses on the new product development process. This process highlights product characteristics, functional interrelationships, and competence that are most effective in determining new product success or failure.	Learning by doing: structural Learning by using: synthetic Learning by failing: experimental Learning by moving: experimental
Sullivan & Nonaka (1986)	An organisational learning model of Japanese	Dissemination/diffusion: This model considers the	Synthetic

	<p>management: It is a theoretical framework within which the question of 'how different is Japanese management from American/European practice is answered.</p>	<p>process of handling information as the key variable in 'organisational learning'. It is viewed that Japanese managers are more inductive decision-makers with an insatiable thirst for data and moreover, the way they handle data is of greater consequences.</p>	
Williams (1987)	<p>A client-consultant organisational learning model: This model depicts an integrated structure that manages the dynamic process involved when a consultant intervenes in a client organisation.</p>	<p>Action/reflection: This model provides useful insights to those who are involved in directing consulting units, to those who are in charge for training consultants, staff them, and to clients who use their resources.</p>	Synthetic
Garratt (1987)	<p>The learning organisation and the three level hierarchy (policy, strategy/integration, & operations): It is an attempt to develop a learning organisation model that assists directors in understanding the dimensions of their roles and in explaining to organisational members what their duties and rights are. This model suggests the route through which organisations can survive and progress.</p>	<p>Action/reflection: This model affirms that the learning organisation should have three features: First, it should have a three-level hierarchy of policy, strategy, and operations. Second, it must have a double-loop of learning, which allows multiple feedback from information flows, direction-given, and monitoring of changes in the internal and external environments. Third, it must have means of processing and integrating these information flows by positioning the direction-givers at the centre of the organisational learning.</p>	Analytic
Ventriss & Luke (1988)	<p>A substantive learning perspective: Ventriss & Luke (1988) apply the concept of substantive learning to public affairs.</p>	<p>Action/reflection: Substantive learning is viewed as a normative process of personal learning that involves critical</p>	Analytic

	They identify that substantive learning involves the process of improving public action through knowledge that critically explores the domain assumptions and normative implications of public policies in an interrelated political environment.	reflection and subsequent reformulation of organisational goals and policy choices, and development of new processes for choosing appropriate policy initiatives. Public administrators thus become open and self community of inquiries	
Lundberg (1989)	A multiple model of organisational learning: This model has capitalised on the consensus and convergences developed in the literature on organisational learning	Action/reflection: It involves multiple organisational learning modes that represent fundamental organisational tasks and forms of organisational modification. The organisational change mode of learning leads to more appropriate internal adjustment. The organisational development mode of learning results in an improved organisation-environment alignment. The organisational transformation mode of learning strengthens organisational sense making and anticipation.	Analytic
Pedler et al. (1989)	Characteristics of the learning company: It is an attempt to investigate the idea of learning organisation and further to search for the feasibility of the idea as an appropriate approach to business and human development strategies.	Action/intervention: This approach takes the form of a workshop and identifies a number of strategies to transform participant organisations into learning companies.	Interactive
Klein (1989)	The unlearning model: It represents an attempt to develop an alternative model to make better use of human	Environmental interface: The role of parenthetic learning in adaptation is highlighted as a core theme	Interactive

	potential, to anticipate human behavioural more realistically, and to avoid the dysfunctional of Greiner's (1987) unlearning model.	in this model. Because it is the critical feature distinguishing past from present contingency that identifies the adaptive short-term response.	
Meyers (1990)	Organisational learning and technological life cycle: Because the advancing technology is causing rapid and uncharted changes for many large firms, it is viewed that responses to these changes reveal more radical, non-linear forms of organisational learning.	Dissemination/diffusion: This model provides some insights so as to help technology-intensive firms to accurately diagnosis and influence what is happening. This, in turn, strengthens organisations to employ technologies and to embrace an anticipatory approach to innovate and to learn.	Synthetic
Bouwen & Fry (1991)	Organisational learning and innovation: This model suggests that the quality of the dialogue during the innovation process defines the quality of organisational learning that takes place.	Dissemination/diffusion: This model assists in examining the long-term learning effects for organisations and also, highlights the interaction and communication among actors.	Synthetic
March (1991)	The exploration and exploitation in organisational learning: It is an attempt to examine the relationship between the exploration of new possibilities and the exploitation of old certainties in organisational learning. This model places more emphasis on the choices between exploration and exploitation in learning.	Dissemination/diffusion: This model suggests that organisational knowledge and faiths are diffused to individuals through various forms of instruction, indoctrination, and exemplification. This form of mutual learning has a number of consequences for both individuals involved and the organisation as a whole.	Exploration: experimental Exploitation: structural
Huber (1991)	Building the constructs and processes associated with organisational learning: This typology suggests that more	Dissemination/diffusion: This model addresses the origin of four constructs that relate to organisational learning. They are	Synthetic

	<p>organisational learning occurs when more of the organisation components obtain knowledge and recognise it as potentially useful.</p>	<p>knowledge acquisition, information distribution, information interpretation, and organisational memory.</p>	
<p>Weick (1991)</p>	<p>Non-learning sequences of stimulus-response patterns: Organisations are not built to learn, rather they are patterns of means-ends relations intentionally designed to make same routine response to different stimuli.</p>	<p>Environmental interface: Two intellectual strategies are available to improve the understanding of organisational learning. One is to retain traditional definition- that is, for organisational learning to occur, organisations must stabilise the stimulus situation and determine its mode of response to it. The other is to replace traditional definition-that is, to develop new definition, which is closely linked to features of the organisation.</p>	<p>Experimental</p>
<p>Simon (1991)</p>	<p>A cognitive view for describing learning and problem solving processes: Organisational learning occurs in two ways: by the learning of organisational members and through hiring new people who have knowledge the organisation did not previously have.</p>	<p>Meaning and memory: Organisational learning is determined by what is known to organisational members and what types of information available in the organisation. The transmission of information from one or group of members to another is an important component of organisational learning.</p>	<p>Synthetic</p>
<p>Jones & Hendry (1992)</p>	<p>Five phases learning model: This model provides insights on whether organisations can be developed in systematic manner or not. For an organisation, which situates itself as a learning organisation from the</p>	<p>Action/intervention: This model represents five phases that can guide organisations to develop their capacities to cope with all and any changes. It provides a simply heuristic device, which is very difficult to work properly in real situation.</p>	<p>Experimental</p>

	beginning, is it possible to transform and transfigure itself without the accoutrements of its traditional structure and system?		
Isaacs & Senge (1992)	A computer-based learning environments (CBLE's) model: This model suggests a theoretical perspective of action science to be applied in computer-based learning environments. It represents a diagnostic tool that helps organisations to overcome individual, group learning pressures that may diminish CBLE's effectiveness.	Action/reflection: Such perspective proposes that CBLE's can improve organisational learning by: (1) forming explicit assumptions and logical inconsistencies in the operating policies of an organisation, (2) cultivating shared understanding of complex organisational processes and systems, and (3) exposing gaps between the ways managers believe 'they behave and the ways they actually behave'.	Structural
Lyles & Schwenk (1992)	Maintenance of organisational knowledge structure: This model suggests that an organisational knowledge structure can be employed to define expected relationships, behaviours, and actions for organisational members. It helps to understand how organisations process information and take actions.	Dissemination/diffusion: The development of the organisational knowledge structure is an ongoing and continuous process. The distinction between core features and peripheral features is a critical aspect within the context of this model.	Synthetic
Isaacs (1993)	Promoting collective learning and dealing with lingering conflicts: Dialogue is a sustained collective inquiry into the processes, assumptions and certainties that compose everyday experience.	Meaning and memory: This perspective affirms that dialogue is central to organisational learning because it holds means for promoting collective thinking and communication. It forms an advance on double-loop	Interactive

		learning processes and represents triple loop-learning.	
Kim (1993)	An integrated model of organisational learning: This model suggests that the transfer mechanism between individual and organisational learning is the heart of organisational learning.	Meaning and memory: This model pays the attention to the importance of making individuals' mental models explicit or managing the way these mental models are transferred into organisational memory.	Synthetic
Hedlund (1994)	A model of knowledge management: This model distinguishes between tacit knowledge and articulated knowledge. It also differentiates between different levels of knowledge carriers or agents.	Dissemination and diffusion: This model suggests some differences between Western and Japanese approaches of knowledge management in large firms. It also demonstrates the interplay between tacit, articulated knowledge and dialogue at and between individual and organisational level.	Synthetic
Dixon (1994)	An organisational learning cycle model: For organisational learning to happen, each member of the organisation must still take on in all steps of the organisational learning cycle with great emphasis on collective rather than just individual learning.	Integration: This model can be viewed as action/reflection model based on the experiential learning cycle. It can also be viewed as dissemination/diffusion of information based on the processes of information acquisition, generation, and interpretation. It can be viewed as meaning and memory based on the initiatives that it provides on sense-making, dialogue, shared meaning or cognition.	Analytic
Burdett (1994)	Creating a learning environment: For organisations to survive,	Meaning and memory: This model suggests that a competence is based on	Synthetic

		learning processes and represents triple loop-learning.	
Kim (1993)	An integrated model of organisational learning: This model suggests that the transfer mechanism between individual and organisational learning is the heart of organisational learning.	Meaning and memory: This model pays the attention to the importance of making individuals' mental models explicit or managing the way these mental models are transferred into organisational memory.	Synthetic
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Burdett (1994)	Creating a learning environment: For organisations to survive,	Meaning and memory: This model suggests that a competence is based on	Synthetic

	they must stimulate learning and provide meaning for all people involved in the organisation, not just those who are at the apex of organisational hierarchy.	pride striving to achieve results at the highest possible standards in conjunction with a propensity to learn.	
Schwandt (1995)	A dynamic model of organisational learning: This model synthesises the earlier theoretical work in the field based on using the theory of action posed by Parsons (1953).	Integration: This model is developed based on integrating perspectives from open-system theory, chaos theory, and social change theory within human collective.	Synthetic
Johannessen (1995)	Categorisation of organisational learning: In order to avoid barriers that appear when investigating organisational learning, this model proposes a categorisation of organisational learning.	Meaning and memory: In order to turn an organisation into an integral learning system, this model suggests a mechanism or diagnostic tool for an information system to convert information into intellectual resources.	Synthetic
Slater & Narver (1995)	The critical components of organisational learning: This model distinguishes between culture and climate in describing the organisational characteristics that comprise the learning organisation.	Meaning and memory: This model views culture as deeply rooted set of values and beliefs that provide norms for behaviour in the organisation.	Synthetic
Nevis <i>et al.</i> (1995)	A model of organisations as learning systems: It is a two parts model to examine a company based on its learning orientation, a set of critical dimensions to organisational learning, facilitating factors, and the process that affects how easy or hard it is for learning to occur.	Meaning and memory: This model suggests a refined and detailed list of factors related to organisational learning that may help organisations to select areas for improvement. These areas do not require radical culture change, but rather can lead to incremental change over time.	Analytic

Edmondson & Moingeon (1996)	Categories of organisational learning: Based on reviewing the literature, this model depicts four categories of organisational learning and identifies how organisational knowledge leads to competitive advantage.	Meaning and memory: Learning ‘how’ means individuals engage in a process designed to transfer and/or improve existing skills and routines. Learning ‘why’ means they inquire into causality using diagnostic skills.	Synthetic
Spender (1996)	Types of knowledge and their strategic value: This model synthesises four types of organisational knowledge and clarifies how each type of them can provide the basis for a theory of competitive advantage.	Dissemination/diffusion: This model suggests that organisations differ in the extent to which they can absorb and apply knowledge. A firm’s competitive advantage arises from the interaction between these types of knowledge.	Analytic
Miller (1996)	Common learning modes: It is a preliminary typology of organisational learning, which synthesises common perspectives on organisational learning in the light of two dominant organisational domains- voluntarism vs. determinism and methodical vs. emergent thought and action.	Integration: This model categorises and synthesises the literature on organisational learning into six learning modes. Each of these modes relates to a particular perspective. The author seems however, to be influenced by the dissemination/diffusion perspective of organisational learning.	Synthetic
Land & Mezias (1992; 1996)	An organisational learning model of convergence and reorientation: This model suggests a simulation methodology to create a population of firms whose activities are monitored by a process of experiential learning.	Dissemination/diffusion: This model explores the dynamic of stability and change emerged from the interaction of learning processes with different organisational and environmental conditions in order to understand organisational convergence and reorientation.	Analytic

Epple <i>et al.</i> (1996)	Organisational learning curves: This model suggests a mechanism for using a learning-curve model as a potential explanation of organisational learning.	Dissemination /diffusion: This model proposes that knowledge is acquired through learning by doing, which is embodied in an organisation's technology and it can be examined by analysing the amount of transfer that happens across shifts within the plant.	Analytic
Sitkin (1996)	Organisational conditions fostering intelligent failure and learning: This model provides non-traditional analysis through looking at failure as an essential prerequisite for effective organisational learning and adaptation.	Action/reflection: This model suggests a conceptual analysis, which focuses on the central role of failure in organisational learning. This type of failure is entitled 'intelligent failure', which must meet key criteria to become a source for learning. It must emerge from planned actions that have uncertain outcomes and are of modest scale. These planned actions are completed and responded to with rapidity. They also take place in domains that are appropriate for effective learning.	Synthetic
Marquardt (1996)	System-linked organisational learning model: This model attempts to capture the essential characteristics of the learning organisation.	Action/reflection: This model is made up of five interconnected elements that guide enterprises on how to create 'the learning organisation'. The five sub-systems are learning, organisation, people, knowledge, and technology. They are all partners for building and maintaining learning and productivity within the learning organisation.	Synthetic

Baumard (1996)	An integrative model to analyse transition of knowledge types: This model suggests a mechanism to analyse the different shifts between four types of knowledge.	Dissemination/diffusion: The shifts between different modes of knowledge require organisational flexibility and a certain reflective thinking on organisational knowledge.	Synthetic
Graham & Pizzo (1996)	Balancing knowledge management: This model represents an attempt to highlight the significance of strategic knowledge in enhancing the quality of a firm's competitiveness in an era of knowledge intensive competition.	Dissemination/diffusion: This model highlights the balance between organisational creativity and flexibility as a critical challenge in searching for the learning organisation within the context of two organisational domains. This model is propagated as a tool for managing organisational knowledge.	Analytic
Raelin (1997)	A model of work-based leaning: This model views knowledge as a collective activity and learning as every one responsibility.	Meaning and memory: This model integrates different learning modes with different knowledge forms and also, integrates between individual and organisational learning. It can be used in practice as a program for learners' development.	Experimental
Hine & Goul (1998)	A conceptual model of organisational learning support system (OLSS): This model represents an attempt to apply innovative information technology (IT) to support and facilitate organisational learning.	Dissemination/diffusion: This model outlines that organisational learning is identified as an increasingly significant subject to be addressed by IT research. It is built upon applying the notions of systems-structural perspective along with the interpretive perspective of organisational learning.	Analytic
Snell & Chak (1998)	Analytic framework: This framework aims at evaluating organisational	Integration: This framework provides some metaphorical insights on	Analytic

	learning in relation to the depth, breadth, and spread of members' involvement.	organisational learning based on combining three bits of knowledge grounded in the literature. These include Morgan's (1986) eight metaphors, Pedler <i>et al.</i> (1991) learning company characteristics, along with the notions of single-, double-, triple-loop learning.	
Crossan <i>et al.</i> (1999)	The 4I's framework of organisational learning: A framework for the process of organisational learning as primarily means of achieving the strategic renewal of an organisation. This framework provides valuable insights on the central requirements in a theory of organisational learning.	Integration: This framework capitalises on several theoretical propositions grounded in the literature of organisational learning. It involves four interrelated processes- intuiting, interpreting, integrating, and institutionalising- that happen over three level: individual, group, and organisation.	Synthetic
Lucas (1999)	An integrated model of organisational learning: This model integrates learning at three levels individual, group, and organisation. It proposes that crises have a significant impact on the pursuit of knowledge and learning.	Dissemination/diffusion: This model suggests that knowledge and learning are proceeded because of an existing or perceived threat to the organisation. It also asserts that variations in the constancy of a threat will result in different approaches for acquiring knowledge and learning.	Analytic

***Function(s) of organisational learning models:**

Appendix (B) above categories organisational learning models in terms of four key functions (Schwandt, 1995).

◆ *The Environmental interface function:*

Models grouped under this function implicitly assume that organisations learn to adapt to their environments- that means, to understand ‘what their environment is’ and ‘which

organisational design features fit best in their specific environment'. These models might be qualitative or quantitative. The main criterion applied in classifying organisational learning models under this category is 'whether the focus of the model is on adapting organisations or parts of them to environments' (Morgan, 1986). Organisational learning models that promote such function deploy mechanisms such as customers' surveys, public relations, research efforts, and other means to scan the environment.

◆ *The action/reflection function:*

Organisational learning models classified under this function view organisational learning as a process of inquiry and application or as knowledge creation- that is, knowledge is seen as central to the work of the organisation (Denton, 1998). These models refer to actions taken by organisations as a 'conscious result of self-reflection'. They emphasise the significance of creating valued knowledge from raw information by defining the 'relationship between the organisation's actions and the examination of those actions' to convey meaning (Schwandt, 1995).

◆ *The dissemination/diffusion function:*

Organisational learning models grouped under this function emphasise the importance of knowledge transmission through formal and informal mechanisms. The function of a learning system might be the transfer of knowledge among different subsystems in the organisation. The dissemination processes are directed and governed through formal procedures and policies (Schwandt, 1995). Diffusion techniques, conversely, represent more informal processes such as rumours and informal communication. Some organisational learning models focus on the process and construct of organisational learning than the product of learning. Huber (1991), for instance, highlights the different constructs and processes associated with organisational learning to develop a comprehensive systematic approach for organisational learning. Others revealed the notion of flexibility and creativity in developing organisational knowledge (Baumard, 1996; Graham & Pizzo, 1996) or highlight the interconnection between culture and organisational learning and how this might reveal universal understanding of organisational learning (Hedlund, 1994; Lant & Mezias, 1996).

◆ *The meaning/memory function:*

Organisational learning models classified under this function aim at developing mechanisms that guide and control the creation of meaning and culture in the organisation. The notion of storing knowledge for future use also constitutes a key part of this category. A number of themes are covered under this category of organisational learning models such as sense-

making, shared meaning, cognition, and culture (Schwandt, 1995). Models that reside in this category view organisational learning as a process of establishing and adapting shared meaning and memory system. These concepts attempt to explain what happens within and outside the organisational universe. The organisational learning process permits organisational members to share meanings and institutionalise them as consensual knowledge and hence, learning relies on shared understanding. These models depend on the creation of meaning or memory through collective sharing or action. The memory system constitutes a part of such category and contains a set of information storage mechanisms (Shrivastava & Schneider, 1984; Walsh & Ungson, 1991).

- ◆ There are some models in the literature captures more than one function. Snell and Chak's (1998) model, for instance, grasps a number of ideas relate to action/reflection, meaning/memory, and dissemination/diffusion functions of learning. Dixon's (1994) model highlights perspectives from action/reflection, dissemination/diffusion, and meaning/memory functions of learning. Besides, the above four functions can be viewed as interconnected sub-systems that are linked through media of interchange (i.e., new information, structure, sense making, etc.) in a more dynamic organisational learning model (Schwandt, 1995).

***Learning Modes:**

Appendix B above also synthesises a set of models in terms of six common modes of learning (Miller, 1996):

◆ *The analytical mode:*

Models that are grouped under such mode of learning often adopt a rational analysis. Within its context, learning occurs through extensive and systematic information gathering from internal and external sources. The focus is on analysing operations and on scanning the environmental to diagnose problems and opportunities.

◆ *The synthetic mode of learning:*

Models that are classified under such mode seek to connect different pieces of knowledge in a new form to develop new patterns or relationships. They restructure concepts to explain harmony, consistency, and fit. Within its context, managers often engage in logical process of 'interpreting organisational texts or streams of decisions and events to reveal patterns, assumptions, and hidden meanings. These models seek to develop powerful synergies and opportunities and also, to understand the dynamics of organisations (Miller, 1996).

♦ ***Experimental mode of learning:***

Models that are grouped under this mode apply rational and methodical mechanisms to learning. They seek to orderly capturing and interpreting information to improve the organisation behaviour (Miller, 1996). The experimental mode is a spontaneous mode of learning because it is not managed by detailed plans. It occurs at different levels and locations in the organisations and more often during adaptation and renewal situations.

♦ ***The interactive mode of learning:***

This mode encompasses 'learning by doing' that takes place simultaneously at various places in the organisation (Miller, 1996). It occurs in a more emergent and implicit way allowing individuals to communicate and share knowledge with each other and with external stakeholders. Pressures cause learning and allow individuals to find opportunities and areas of freedom. Individuals improve their actions in relation to feedback mechanisms. More forms of collaboration emerge in this mode of learning. It simplifies organisational adaptation by breaking it down into local agreement (Miller, 1996).

♦ ***The structural mode of learning:***

Such mode occurs through organisational routines that guide learning and work as instruments for rationality. Organisational routines also explain ways for enhancing efficiency and correcting errors. Planned types of learning are thus promoted based on the standards and rules developed within the context of these routines (Miller, 1996). Routines often spread in the entire organisation and hence, their effects are very broad and far-reaching. Routines might, however, restrict people's challenges to discover new ways of doing things.

♦ ***Institutional mode of learning:***

This mode represents an emergent and inductive process through which organisations take up values, ideologies, and even practices from internal and external parties (Miller, 1996). Knowledge is widely disseminated and diffused among organisational members. Learning might occur indirectly through the efforts of elite and influential members. This mode of learning harmonises values among organisational members and creates coherence among their beliefs to work together.

Appendix (C)

Contact Letter for the Potential Interviewees

Our reference

Your reference

Direct line/e-mail

Gamal Mohamed Shehata
The University of Nottingham
Nottingham Business School
Social Sciences Building
University Park, Nottingham
NG7 2RD

Office Tel: 0115 9515496
Home Tel: 0115 9422941
Fax: 0115 9515262
Email : Lixr6sg1@lin1.smf.nottingham.ac.uk



Business School

University Park
Nottingham
NG7 2RD
Tel: +44 (0) 115 951 5252
Fax: +44 (0) 115 951 5262
<http://www.nottingham.ac.uk/unbs.html>

17 November 1998

Dear Sir/Madam,

I am currently undertaking a PhD research project entitled "Organizational Learning as a Firms Strategic Capability to Maintain Sustainable Competitive Advantage". For the purpose of this research a conceptual framework has been developed with the aim of investigating such issues in a sample of British companies.

The purpose of the project is to establish the interaction of theory and practice in this area and the results of the survey would be of interest to both managers and researchers. I strongly believe that your input would be most valuable and I would very much welcome your contribution to the research. For this reason I would be grateful if you would agree to be interviewed as part of the survey. It is anticipated that interviews would take no longer than 30 minutes.

I would stress that all information collected will be treated with the strictest confidence and no reference would be made to participating companies within the published research. A copy of the survey results will be sent to participating companies.

I will contact you by telephone next week to arrange a convenient time for an interview, if you are willing to participate.

Yours sincerely

A handwritten signature in cursive script that reads 'Gamal Shehata'.

Gamal Shehata

Appendix (D)
Question Guide for the Interview

Question (1)

HOW DOES YOUR COMPANY DEVELOP ITS KNOWLEDGE STRUCTURE ?

So the first question is about how does your company develop its knowledge structure ?. So I think things have changed recently, the company has the overview of what it wants to do to change from hierarchical command and control tailorism, to autonomy involvement and commitment of staff. And it has defined the processes that it needs to do to move. And its just at the start of that journey at the moment. And the sorts of things that it has introduced. I think it's started to match its structure to the processes that go on with the formation of business units. And regional structures and area customer focus, teams. And through that, that restructuring its starting to put into place processes that get people working together and those teams will then learn from each other. So that's the sort of structure linked to process within that its then started to work at cultural change and its done that through trying to develop shared vision and purpose and what the company ambition is and by the managing director starting to have meetings with senior managers to start say- " this is what I see as the vision but, and purpose but, I'm open to your views, this only the first proposal and there are these processes that are involved and further meetings and discussion and dialogue about where that should go. - I'm aware of that" at the executive level and at top 250 manager. I've been to one of those meetings where the vision of us becoming a world class leader of health and beauty products and the purpose of perhaps it's worth helping the health of perhaps a million people around the world. And being part of an organization. So once we're starting to get that shared vision, we then need processes to help people start to look at the business in a different way and say what is our 'core competence' and what is not and how can we work move effectively and efficiently and what is the learning from those processes and the business process review teams have been working, and there are 120 processes that are being reviewed and teams of people are being drawn from around the company to look at those and analyze how those processes are going. And the structure within that and experience of how those teams work and approach that analysis, I think, has developed and we are learning from that. So we have structural, we have a little cultural change and we have reviewing of processes to get that in. And then on top of valuing leadership program which is starting to get people looking at these styles of leadership and that's applying to quite a lot- a reasonable sample of managers and that almost builds on some of the cultural change stuff. Get people looking at themselves. To get them thinking about their values and perhaps looking at themselves and seeing how they lead people. And thinking about their own mental models and thinking, that then gets a change occurring across a reasonable sample of people , there are also a lot of IS issues in terms of how we support the learning process which I think we're going to come on to. Which almost I see as the start or the thing that supports, perhaps not the start in terms of the executive having put into place processes that will help this occur. And that hasn't ever happened before. Having seen this letter from the managing director- giving some vision of where we want to go. And encouraging everybody to get involved is a start to changing the culture. This is then percolating down through the organization and means that there are more meetings and that, more open meetings about how- what individuals have used in the developing the business up. And 'whether though within those meetings there is enough reflection on learning and trying to get those blocks of learning into a system so they can be used in future- I don't think there is'. Okay, does that start to. I see some big things starting about we're only at the beginning of the journey and there is a frustration in the company at the moment that the change in culture is

not happening at the lower hierarchical structure , that applies hierarchy doesn't it ?. At the point of customer interface where we have the most amount of people. We have also defined some behaviors that managers should exhibit. They are called the “ driz alert culture”. Driz alert is a numonic for demanding innovative, responsible, supportive, energetic, risk taking, I've forgotten the other one. We're 'actually' up here listening theme based. These are listed within our strategy document and that strategy document covers structure change, business initiatives, cultural change, and behaviors. So the fact that we have a strategy document that I think about a year and a bit old, and that has been documented, starts where it really gets at putting processes in for learning , I'm not really sure. If you imply by developing the knowledge structure that cultural change and involving people helps with that then that work is relevant. Is that okay.

Question (2)

HOW DOES THE DEVELOPMENT OF INTERNAL KNOWLEDGE SUPPORT THE CREATION OF NEW BUSINESS OPPORTUNITIES IN YOUR COMPANY?

How do we use internal knowledge to get new business opportunities, I'm finding this hard to answer because in an operational environment you tend to react to the strategies that have been produced by the business units or centrally. Although with the new regional area structures there is just the start of a change in emphasize whereby this store is a large store and the other smaller stores would start to work together more to develop changes in the way they work to create new business opportunities. Example are would be using the personal resources here- the personal manager to help recruitment standards across the area or to help with Christmas recruitment. Using the sales management resource to visit other stores to look at standards of presentation or the promotions that they are doing. To use these other units to make the promotions in this store more effective to review systems across that area and see if we can improve-help each other or to look at stock control and see if we can rebalance it so we're using our internal, our own knowledge there to start to work in different ways to make the business more efficient and to take more money and maybe save costs. So that's starting but it's not done at the moment in a structured way because it's in the early stages of growing. The structuring only happened in May this year (98). We do use the electronic business EBC email type system between stores to share ideas but it's adhoc, there is no structure, there is no-if I want to do a promotion externally in a hotel what do I need- lets see who else has done that in the leads store or Manchester store key in here's some performance here's some understanding this is what sales- that's the learning part of it- or being able to access that learning so that you don't have to do it all again yourself or you can learn from those mistakes and that I would say is where we are different. And that almost links the IT approach. So we do also have meetings of people to share these ideas on a monthly basis for the managers of the stores in these newly created areas. In those meeting we would use our knowledge to look for new business opportunities. How much structure? a lot of it is reacting to century driven new product launch changing systems, new cost control initiatives, new marketing programs because we're not defining those or developing those but I see that balance changing because what's happening in the company is that as the regional structures which are profit centers now and area structures start to develop more of their own strategies linked to local customer needs, then the power shifts from business units to regions. And so strategy is much more locally fine turned to customer needs. That may give us competitive advantage because our strategies are matched locally to customer needs. There is a bit about how we us internal knowledge. We don't know have a free flowing access to databases, previous work that's gone on. One of the people on the course was working for Anderson Consulting before and he said that there they have a system where they can access information. We don't have that. We can if we want to ring up or- but I don't think people use information because they don't know its there. And when we come on to some of the IT and process I'll tell about the structures that i think should be in place. Do you want me to move to question 3.

Question (3)

HOW DOES THE CREATION OF NEW BUSINESS OPPORTUNITIES FROM INTERNAL KNOWLEDGE LEAD TO SUSTAINABLE COMPETITIVE ADVANTAGE IN YOUR COMPANY?

Yes- I've started to touch on that. So I think there is this fact of matching local strategies to local customer needs is quite difficult copy. "That's sustainable". I think if you can change people's ways of thinking to think about helping each other across an area that could be synergistic and work and start to really improve things across promotions, stock, systems you know. I think that could be something that then is sustainable, but really to get sustainable competitive advantage you need to be coming up with ideas and new services products or new products themselves, new services or new product quicker than our competitors. I suppose an element of customer service comes into that and I see one thing that may impact on that is the introduction of computerized training. Which staff are becoming more used to. It can be monitored whether they've complete it, their knowledge can be tested, it's a fun way of learning and through that medium you can then increase the knowledge of the staff who are interacting with the customers, all right. Sustainable competitive advantage- Internal opportunities from knowledge, sustainable what else gives us sustainable competitive advantage- yeah, the other thing that will give us sustainable competitive advantage is the design work that's going on within the company which I've had some involvement with. Which is to do with the new concept for 'Boots the Chemist'. This will be introduced into 'Manchester and Blue Wate Park' And this involves thinking where Boots has come from? what are Boots core competencies?. I suppose or what are Boots about and it's about maintaining people, healing people and inspiring people. And then of where Boots should go in terms of its environmental treatments and why should we continue to get customer coming to us so what will differentiate us from Tesco's of this world at one end and the John Lewis's of this world at the other where do we fit and if we can get that right and we can get something that they will want to come to us for, almost like Boots is an institution- not in the boring sense of the world but in the sense that people want to come because that's something they do. They go to Boots to get healed and there's a lot of work going on in that area which will give us competitive advantage, because we're going to be able to learn from those processes and design treatment and we're trailing those things. I think that answers that. This piece here-is confidential at the moment, that concept development work.

Question (4)

HOW DO IS/IT ACTIVITIES SUPPORT THE DEVELOPMENT OF AN EFFECTIVE LEARNING SYSTEM IN YOUR COMPANY?

Well, I don't think they do at the moment. That's the main crux of the problem. So I talked to Ron Furnace the director of information systems about that who was in the store. We talked through this, the route of cause of our problem is that at the moment. We don't have a Boots Intranet system where people can communicate on a basic level or basic admin. We have this sort of system which works on X-station base type system and it's not- it doesn't have PC word processing capabilities. It accepts email and it has the facility to send messages out to Roles. So you don't have to communicate with individuals, you can communicate with all managers or pharmacy managers or all something consultants which has an advantage for the company. But it adds a disadvantage where this system doesn't link into some of the system- the central business unit that we use. It doesn't have windows capability so I can't format a message a memo attached a windows file and send that to the business unit person for basic admin first. They have something called "CC mail" and CC mail doesn't talk to the stores it talks within head office so you've got two different computer systems. I think this is a core problem within the business. This was introduced- the thinking behind it was because there was- I think the thinking was that they didn't want managers or store staff playing around with computers, they wanted them on the sales floor. So they were thinking from the behavioral point of view command and control- no don't give them that because they'll play in the office instead of on the sales floor. What they should have been thinking is further ahead to say that this is a tool to access information and learning to drive local strategies to meet local customer needs. And they didn't see that so they invested £35 million "big mistake" and they've acknowledged that and they're now trying to develop a more Boots intranet system where you can have one system across all thing on which everybody can talk to each other. What I- so then that's the problem, that's what we've got reality what we need then is a system that everybody is connected because in a more flatter structure companies with less people, the people in it are making decisions and have to have access to the information to make decisions and develop strategies themselves rather than being told from above. So everybody needs to talk to each other so that if I'm working on something everybody else knows that and when they're working on the same thing or something close to it, they can make sure what they're doing ties in with mine and we all know where we're going. We've got a shared vision of what we are doing. Even though it's so complex, hopefully by everybody being able to talk to each other communication flow synergistically between all the things and what happens then is you move from basic data to information and information to basic admin which keeps the business ticking. You move then to the next level which is people being willing to share their ideas. Or to key into people's ideas if they are working on something similar and you need that free flowing flexible communication without command and control I think if you really want to get people learning from each other and a learning organization. The problem and why people don't like that, who are defining the IS systems is that you need security controls, confidentiality, what about our strategy . Can't people key into that and get all our information in one go. So there's this thing of 'oh we can't let people access information in our business because it's confidential and it could give our competitors competitive advantage and that's the dilemma'. I don't know enough about it to understand the processes you need to put in place to address that issue- that's the IS guys job. I don't understand

why you have controls because you don't want just everybody accessing everything. Anyway so once you've then got a system where I can talk to anybody in the company on this what I then want is not a list of names of everybody in the company because one of the key problems with this at the minute is unless you know the person's name and exactly how you spell it you can't really send them a message. So what you need is a very simple guide to using it. So you'd say right lets go to the system, this is the BTC, this is Halfords, this is Boots group and this is Lutzia, Permal as we go global and you say right I want to talk to someone- Boots the chemist, so you click on Boots the chemist and it gives you the structure of Boots the Chemist. Click on health care business unit and it gives you health care business unit and it says this is the person who looks- head of operation- through operations it can start to list the people. And you can go in if you you want to or you can go in to look for people's names if you know them. Or you can in and say the work title, this the project manager for skin care so I put that in , they give me the persons name and show me where they fit. So because that information has got to be user-friendly and the only way you can get people talking to other people is if they have the confidence to think, when I send them a message or if I phone them I'm getting the right person. That it's worth me to investing that time and really you need that simple overview I think. That's where you start the system, so then you press on that personal thing and you say and you click one button and your message goes off to them. Maybe with such a large number of people talking to each other you need a separate file, one for actionable things and one for just information. So that product manager or whatever gets actionable request things that they've got to reply to and they get information and why you need that is because of you've got 1500 stores if all of them send a message to that branch manager everyday, say he'd have 1000 message to read. That might be important because if you want to really meet customer needs and fine tune your strategies and product strategies and things to the customer needs, what you really want is the people who are serving, at the customer interface feeding back information to the people that make the decisions about the products or services- customer feedback system but the danger is you get so much information you can't manage it. But if that product manager gets 500 message to say that product you just launched yesterday doesn't work because this-the top needs changing, he doesn't need to read them all, once he's read the first ten he ca say oh there's a problem on this. Whereas if he only got 3 message about it or three calls because somebody happens to know that he's the product manager then he might think it's only 3 I want do anything about it. So the volume of the communication starts to determine the degree of the action, is that making sense?. So you've got a like simple to use computer system that gets people to the person they need to speak to and if they want it can have telephone number on and , you know, you can speak to them by phone as well, you don't have to just communicate information but if I, I want somebody to know that I've done something I think it might be relevant and I just send a copy of it in that case. It would also help me make sure that the communication, if I've got problems, I know that I can go to somebody to give me the answer, maybe you're not sure who to talk to within the structure at the moment-well that's what I think. That's you IT structure, you've got to be able to attach windows files to it so you can and you need a windows capability. The other reason you need the windows capability is to match the skill resource of the people who are coming out of schools so we've got our organizational capability but we've also got learning and experience coming from the schools, school leavers or graduate who have all got-using windows in their schools and universities and they've used to that capability and they may have PC's at home. And some of our workforce will have PC's at home. I do, multimedia you know PC word processing but then we don't have a system where I can transfer data and work and ideas from my home to here easily. What we have is a word processor downstairs that does it all but it's in other office, it's not linked. So it's the links and the capability of the equipment but most important was the learning within the schools and universities we can't use that straight away. So I think that's key.

Question (5)

HOW DO YOUR COMPANY INTEGRATE IS/IT EFFORTS WITH BUSINESS PURPOSE AND ACTIVITIES ?

So then the integration, right. Just a bit in here,- that's your communication system, that allows people to share ideas or for actionable admin. There might need to be two tier because of this volume. But if you-you also need a system whereby you can access information so the central databases need to be fairly simple again to say- work on health care promotions. We look at health care again we look at promotions and marketing and planning and you can dig into that and see if anybody's shared any information on that so you go into developing professional pharmaceutical services in the community or developing professional pharmaceutical services in store promotions external things, visiting doctors, surgeries and any body could contribute an article to that or a windows file so then if one store in Leeds has some well I can say 'oh that's how they did it that was the standard letter used to write to the doctor that's what they did and I can access that learning very simply. Now obviously an understanding of data stage system and how best to structure those and whether you would actually want to word search things or subject search and all that sort of capability, that's a bit more advanced and that could be something for the future-that you could type in here the thing you want to do and it searches for you. But I understand that that's more complicated across a massive database. so the simplest thing is to have some sort of structure and people just file information, if they want to. So then you can search, research learning that has occurred before. Again you've got this confidentiality thing though. Almost I think you just need the trust because if you don't have that trust you won't get people- that can't get the information but that's the dilemma I think, then so that- and maybe you force people if they don't do any work. so it would be a culture that if somebody develops a new way of selling health care insurance at the moment which we're pushing at the moment and they have found some way and they're doing well at it still they're taken twice as much money as other people then you our culture you say to them " have you put that on the control database-have you done that, it's a good idea, have you put it on there? oh no no I haven't done that" or why don't you encourage people themselves to say I want to put that on there, that's a good idea so people then want to do work to put it on there and maybe the only -you know, that encourages people to put-it's recognition isn't it?. Or somebody does some work in portfolio planning for deciding where they're going to open stores in one area and they put all the data for that size shop how much it's going to take, this is the customer profile, taking's per meter squared, expected things, expected prescription numbers and another area manager in another area of the company could key into that and say 'oh that's a similar sort of store, that's will actually I think my store is going to take a bit more than that. And that then makes financially viable so yeah we'll go with that investment and we'll open that new store. It's accessing that sort of a- So how does it integrate ?. It integrates with our purpose. Well it doesn't at the moment, it doesn't integrate does it ?. (IS /IT initiatives and other departments initiatives). Yeah- there's information provided and it is- there is data provided and it has been transferred, translated into information into knowledge, sorry it has been translated into information. So I have data about shampoo sales and it's transferred into information by it being done on a weekly basis I can see the percentage increase over the last year of shampoo sales and 4 weekly sales and so I can start to process that information provision though. Because it's the patterns of that information that change my action and therefore determine whether it's knowledge- I think. So we could be more

sophisticated in how we use that information and the IT capability to analyze it to move it from information to knowledge. (IT/IS should play a critical role in building our internal knowledge structure). Absolutely-yes absolutely. Because people haven't got the time to meet or be on the phone. More and more people are sending message. if you find something that's of interest then you can pick up the phone and say can I meet you? to discuss how you developed the Longcom? business. So i think it has a key part to play and that's where our conflict is at the minute. We were a leader in IT with our in 'epos' technology but what mistake we made was that we valued that investment on the return we get from Epos information and the fact that it would then be able to drive margin and our sales growth and product. What we didn't see is information in soft systems, personal systems and this communication when it was cosseted out it didn't give any money back. It was difficult to measure so we haven't invested so much money but that's were we're gone wrong because I think we are behind our competitors in that way. And that's to do with the way we apply our Value Based Management system. Because you've got to get a return and you can't show it and I was talking to John Richards and Mark Knolls- I think his name is- I can't remember his name, head of the communication. He said that ' that's the reason really- it's because if you want to spend money in this company you've got to show a return because of our shorttermism to produce- improve total shareholders return that year. So therefore you don't invest money over 3 or 5 year period to make you a - those softer things which give you your organizational capability so somebody needs to take a greater overview of that but that's I'd say not the culture at the moment. It's much more- are one of our key company things is to achieve the over 25% total shareholders return year on year but that really drives everybody for short term initiatives that produce gain. But this is the difference isn't it? between the English, Great Britain and perhaps some of Europe compared perhaps to some Japanese and their long term strategies. Even perhaps in France it's the way their money markets work isn't it? I don't understand it all but I have some. (profit and cost). Are those competitors though? investing in their infrastructure to help them become a more learning organization. I think they maybe and it was that we were ahead of them but now I think we've got some catching up to do which is disappointing. Yeah sorry.

Question (6)

HOW DOES CREATING THE COHERENT BLUEPRINT FOR A TECHNICAL PLATFORM LEAD TO QUICK RESPOND TO YOUR COMPANY CURRENT AND FUTURE BUSINESS NEEDS?

I think the IT I've just of talked about then in terms of the investment in- We need the in IT there might be 3 years where we need to invest more in our technical infrastructure. One would be in terms of our information system to provide sales data and where we need an investment is a bit more advanced processing or patterns of information. The second area would be in the information system- sorry the staff planning process and profiling them work and staff profiles and there is development going on for a new system for that but it's been delayed, I'm not sure why. So more advanced systems, simple systems, the system we have at the moment is very complicated, computerized staff planning system is difficult to use, manage. So that would be an area where we could invest and then we've got the communications infrastructure for helping define the basic admins and strategy. In terms of the technical support from staff I think the quality of staff and their technical expertise is there in general in stores to meet what we want to do in the business centers. They've been restructured recently. Whether because of that restructuring, there are people there who are less experienced than there were and whether their technical experience is as high as it was, because there's less people and because they are newer, technical experience there, is that make sense, so they have the technical knowledge to develop something new. It needs to be improved in general. There are newer initiatives coming along like okay, technical support for systems for stock control and things like that. There's a big project going on at the moment and in logistics about our system support for that and there's quite a few issues again whether we are as advanced as we should be in terms of how we monitor movement of goods, how we control and have an audit trail fro movement of goods. And once we get the goods in store, the systems we have in place to keep control of stock and the sort of trial radio frequency, gap monitoring terminals and things like that. Which not all stores have hold yet but they are trailing it I am aware of that. But I still think some improvements can be made to that. Talked about cash system or the till systems. So I think there's improvements across that area we need to go on...that's my understanding I think.

Question (7)

HOW DOES THE DEVELOPMENT OF INTERNAL KNOWLEDGE PROVIDE YOUR COMPANY WITH THE CAPABILITY TO GENERATE NEW PRODUCTS/PROCESSES FASTER THAN COMPETITORS ?

Yeah- faster is the word isn't it?.

we're good at developing products, we're good at developing new products from our history of manufacturing, contract manufacturing, product design and innovation and all of our pharmaceutical heritage we're good at developing products quickly. Whether we're quick enough to meet where we mainly fall down is the speed of response to what customers need back and that's where we don't have that feedback system which I talked about earlier. So if you had that you could then get somebody who works on the sun shop area feeding back to the center to say 'customer a are saying this product doesn't quite work for them because either the consistency isn't right or the product lip doesn't work, or it keeps breaking can you change that or improve it. Or they might saying customers are asking do we have this product and we haven't got it to sell them, shall we consider producing our own'. That's sort of ideas. So faster is the thing. I think we have the capability to develop products but we might not have the capability to develop them faster. And that might be because, not because we can't, haven't got the processes to do it but more we don't pick up what customers need quick enough. That could be it I think. (if the scenario of the company, particularly in knowledge sharing has been changed, do you believe that can lead to generate new products and processes faster than competitors?). you know, people who are producing the plans for a certain area or their particular product if they could ask people quickly- what do you think of this- send them, look at it and report and then get some feedback then maybe some of the problems with it or could be ironed out or the design could be improved or the the service that we're offering or the way we do it could be improved. So it is about asking the people that are next to the customer interface or even then asking the customer so you could if you really sophisticated what you could do is, you send a message to the people at the customer interface saying 'people ask customers what they think about this product so when they see it they say, it comes up on the till, can you ask the customer what they think " what do you think of this product?" oh I have used it brilliant product but I'd prefer it in blue and green or something. So you just key in at the customer interface preferred in blue and those message are sent back and then the sample is analyzed. That's the speed of response. We have capability also to spot sales patterns and the structure that we've got for that is good. We have a top 35 list so we can see lines that are coming in and out of the top 30. Okay.

Question (8)

HOW DOES YOUR COMPANY KNOWLEDGE STRUCTURE AS A UNIQUE AND SUPERIOR COMPETENCE SUPPORT YOUR COMPETITIVE STRATEGY TO ACHIEVE SUSTAINABLE COMPETITIVE ADVANTAGE ?

I don't think we have got a good knowledge structure. I'm hesitating because I don't know if we've got a good knowledge structure. I don't think we reflect enough on things we don't document things enough. We don't have the system to access it. We have information but it's held within certain blocks within the organization and it's not accessible to all. It comes back to what i said earlier it's this sharing of learning that isn't there. And ways of doing things are sort of as you say tacit and handed down by verbal communication. We're good at developing people though. So if we've got good processes to develop people, that should share that knowledge around and help with succession planning. But whether it's unique and superior- I don't think it is and I don't think- you know, we need to get better at that I don't think I can say any more on that. I think it's really what I've said already....yes is that okay.

Question (9)

HOW DOES YOUR KNOWLEDGE STRUCTURE MEET THE CHALLENGE OF THE FUTURE AND SECURE THE FOUNDATIONS FOR SUSTAINING COMPETITIVE ADVANTAGE?

I think we have got quite a good vision of where we are going, we're getting the cultural change to achieve it but to get to where we want to get to is quite a difficult path. Particularly this development of health and beauty strategies. So I think we've got some processes in place there to help us but whether it's actually going to happen I think it is, it is just that we're on the start of the journey and that there's some difficulties at the moment in getting to where we want to get to. And those difficulties are to do with shorten cost control which is a variance to cultural change involving people because there's less- you know..... have less people. if you want to get change in an organization really you need an investment but that's a longer term picture. It doesn't give shorten returns. Okay.

Question (10)

HOW DOES YOUR COMPANY DEVELOP A KNOWLEDGE-FRIENDLY CULTURE THAT SUPPORT THE DEVELOPMENT OF INTERNAL LEARNING ENVIRONMENT?

Openness isn't it, trust, it's all of the softer things. Almost we have to find it in the DRIS ALERT culture which is up there by at least defining the sort of behavior that we expect supportive, listening, innovative, a friendly team based approach to learning. I think processes are in place to achieve that the only conflict you have is where you're starting to exhibit cost control. You have less people and that puts people under pressure more so they have less time for sharing ideas and that. They're more task focused. So cost control, efficiencies, short term gain whereas what we're trying to do is culture the organization which is a longer term thing and I think they do support it in the meetings they have "knowledge friendly" but there's not a great sharing of information, people keep information to themselves because knowledge is power. And I think there's too much of that. People working in silos and not. One of the things is not seeing work outside of their role as being important and if you can get people in the organization valuing that then that would be a key to people actually sharing information or working on things that are not in their area of responsibility. So you've got to try and get that- management seeing that that's important in individuals. That they do things that are not just in there area. How does it develop a knowledge friendly culture?. The social interaction, the more social things you do, the more team relationships you'll get and people working together as a team but that again requires investment, support by a company but in a cost control culture we don't have that. so we'd say invest money in this new product because I know it'll get a return. Invest money in taking everybody out for dinner and giving them some money for Christmas parties-oh no return in that I can't do that. That's an extreme because hey do give some money for Christmas things. Knowledge friendly it's about getting people working together as teams, social interaction is important in learning relationships because then people trust each other and they are then more able to share their knowledge but there is also this thing about the key role of the leader or people within the organization being- to try to help people understand themselves and from that understanding of themselves they might then share some of their assumptions about life and therefore their knowledge about life. And the company is trying to encourage that I think. So those would be the key things.

