

**A CRITIQUE OF THE CONSULTANT-
CLIENT RELATIONSHIP IN CHINESE
SMES' LEAN IMPROVEMENT PROJECTS**

By

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Abstract

This thesis critiques the consultant-client relationship in Chinese SMEs' lean improvement projects. SMEs, which are crucial to China's economy, encounter many challenges during their development. Management practices, such as lean, have been developed to improve organisational performance. In their application to SMEs, resource constraints mean that business assistance from external agencies, such as management consultants, is required.

Drawing on multiple theoretical lenses, including organisational learning, institutional theory and contingency theory, a research framework is established. This framework is employed to identify three research themes: organisations' abandonment of existing practices; organisations' learning of lean practices; and the consultant - SME client relationship during lean improvement projects. As well as the established consultants' role, "consultants as external advisors", a new role, "consultants in residence", is identified. These two roles are studied through the three research themes.

This thesis employs a multiple-case study approach. Consultancy-involved lean projects undertaken in five Chinese SMEs are investigated using data collection methods of semi-structured interviews, direct observation and documentation. Both within- and cross-case analyses are applied.

The main contributions of this thesis are fourfold. First, it sets out the changing nature of the consultant - SME client relationship throughout the projects by comparing and contrasting the consultants' and clients' perspectives. Second, a framework which defines the impact of SME structural characteristics on the consultant-client relationship is developed. Thirdly, two organisational learning frameworks in relation to the two consultants' roles are established. Furthermore, the approach employed to deinstitutionalise organisations' existing practices is compared between the two consultants' roles.

In the conclusion, the implications of this research for academia, practitioners and policy makers are discussed. A checklist which can aid SME managers in employing consultancy services is proposed and areas for future research are identified.

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List of Abbreviations

BPR	Business Process Re-engineering
CECMAC	China Enterprise Confederation Management Advisory Committee
IMC	Institute of Management Consultancy
JIT	Just-in-Time
LEs	Large Enterprises
MCA	Management Consultancies Association
MIIT	Ministry of Industry and Information Technology of PRC
MOF	Ministry of Finance
NBS	National Bureau of Statistics
NDRC	National Development and Reform Commission
SMED	Single-Minute Exchange of Die
SMEs	Small and Medium Enterprises
TPM	Total Productive Maintenance
TPS	Toyota Production System
TQM	Total Quality Management
TWI	Training within Industry
VSM	Value Stream Mapping
WTO	World Trade Organisation

CHAPTER 1 INTRODUCTION

Chapter 1 Introduction

1.1 Chapter Introduction

This chapter introduces the background to the research area and gives the structure of thesis. The primary research aim and questions are introduced and a brief insight into the research context is presented. The research framework that guides the research process is also provided.

1.2 Background to this research

The increasing competition, driven by globalisation, the development of technology, and more demanding customers in the modern business environment, has been well documented in the academic literature (D'Aveni, 1994; Thoumrungroje and Tansuhaj, 2007). The increasing competition in the marketplace not only impacts on the survival and growth of Large Enterprises (LEs), but also on the Small and Medium Enterprises (SMEs) who play a significant role in the world economy (Ayyagari et al., 2007; Gunasekaran et al., 2000).

SMEs contribute to the economy of both developing and developed countries through creating more job opportunities and generating more wealth. For example, more than 99% of the business enterprises in the UK private sector are categorised as SMEs and approximately 47% of the workforce in the private sector is employed by the SMEs (Federation of Small Business, 2013). In China, SMEs account for over 90% of the total business enterprises and contribute to 80% of total employment (China Daily, 2013).

While SMEs have been recognised as important players in the marketplace, many of them are actually operating in a reactive and fire-fighting manner (Terziovski, 2010). Although many improvement practices (such as lean practices) have been developed to assist organisations to better perform in the competitive market, many SMEs are still struggling with adopting these improvement practices due to resource constraints (Achanga et al., 2006; Shah and Ward, 2003). Hence, business assistance is important for SMEs when implementing the improvement practices (Lewis et al., 2007).

Among all the sources of business assistance, management consultancy has been considered as one of the fastest growing sectors (Kipping and Clarks, 2012). Statistics show global consulting revenues have been increased from approximately \$200 billion in 2002 to over \$300 billion in 2008 (O'Mahoney and Markham, 2013). Recent market research shows that global consulting revenue will rise to \$431 billion by the end of 2014 (Plunkett Research, 2014). As argued by Kipping and Clarks (2012:1), "*in a relatively short period of time, management consultants and management consultancy have come to occupy a significant role in modern organisations.*"

The rapid growth of management consultancy has attracted researchers' attention, and many empirical and conceptual studies have been undertaken to research management consultancy and client organisations. Studies of the consultant-client relationship dominate the management consultancy literature (O'Mahoney and Markham, 2013). There are different models of the consultant-client relationship including the expert model, critical model and social learning model (see Nikolova and Devinney, 2012). However, little academic literature has considered the complex contexts where the

consulting practices are undertaken and the dynamic nature of the consultant-client relationship in the consultancy projects (Nikolova et al., 2009; Sturdy et al., 2009a).

Moreover, compared to LEs which have been viewed as frequent users of management consultants, consulting practices in the context of SMEs have received limited attention (Chen et al., 2008; Christensen and Klyver, 2006; Mughan et al., 2004). This research seeks to contribute to bridging this gap by conducting an empirical investigation into consultancy-involved lean improvement projects in SMEs.

1.3 Research context

This research focuses on Chinese SMEs for three main reasons. First, China plays a significant role in the world's economy. At the end of 2009, China became the largest exporter in the world (Berger and Martin, 2013). A large number of products manufactured by the Chinese enterprises in the textile, apparel, furniture, metals (steel) and machinery sectors are traded globally (Berger and Martin, 2013). China's economy became the second largest in the world in 2010, and China's GDP remained the world's second largest in 2013 (Berger and Martin, 2013; World Bank, 2014).

Second, SMEs are vital to China's economy (Zhang and Tao, 2012). Along with the evolution of China's economic and political environment, the number of Chinese SMEs has increased to approximately 10 million in 2011 and they contribute to more than half of China's exports (Cunningham, 2011; Hilgers, 2009). The importance of

Chinese SMEs to the economy has also changed from being positioned as “the supplement” in the 1990s to “the important force” in the 2010s (Cunningham, 2011).

Third, despite the fast development of Chinese SMEs and their vital role in China’s economy, they have encountered many difficulties during their development, particularly after the global financial crisis struck between 2007 and 2008. Externally, the demand from the global market decreased considerably after this financial crisis. Consequently, SMEs, which particularly rely on exporting their products to other countries, have suffered considerably (Hilgers, 2009). Internally, the latest growth plan for Chinese SMEs issued by the Ministry of Industry and Information Technology of PRC (MIIT) shows that most SMEs lack appropriate methods to manage their daily operations (MIIT, 2011a). The plan encourages and advises SMEs to improve their internal management and reduce costs with the support from external sources such as management consultants (MIIT, 2011a). The development of Chinese SMEs will be further discussed in Chapter 2.

Research of consultancy-involved improvement projects (such as lean improvement projects) in the context of Chinese SMEs would consequently help SMEs better understand the consulting practices and manage their relationship with consultants more effectively. Meanwhile, it will enable those consulting companies that are interested in developing their business with SMEs to be aware of the potential impact of organisational size on their consulting practices. In addition, it will have implications for policy makers by advising them on the support needed by the SMEs

in relation to consultancy projects. The implications for SMEs, consulting companies and policy makers will be presented in Chapter 8.

In this research, five consultancy-involved lean improvement projects are investigated in-depth. On the consultancy side, one consulting company named ZQ Consulting Company (pseudonym of the company) is involved. ZQ Consulting Company (founded in 1985) is one of the leading consulting companies in the eastern part of China with 65 full-time employees and 98 part-time employees. It has received many awards from the government and consulting associations such as the prize of “most influential consulting company in China in 2005” and the prize of “outstanding management consulting company” in 2011 and 2012. Its client organisations (i.e. both LEs and SMEs) operate in a wide range of industries, such as in the machinery, textile, apparel, foundry and food sectors. With the support of ZQ Consulting Company, the researcher has successfully gained access to five of its lean improvement projects undertaken in five Chinese SME clients. These SMEs operate in the areas of automotive industry, textile industry, glass manufacturing, metal accessories and electrical tools manufacturing. More details about the consulting company and client organisations can be found in Chapter 4.

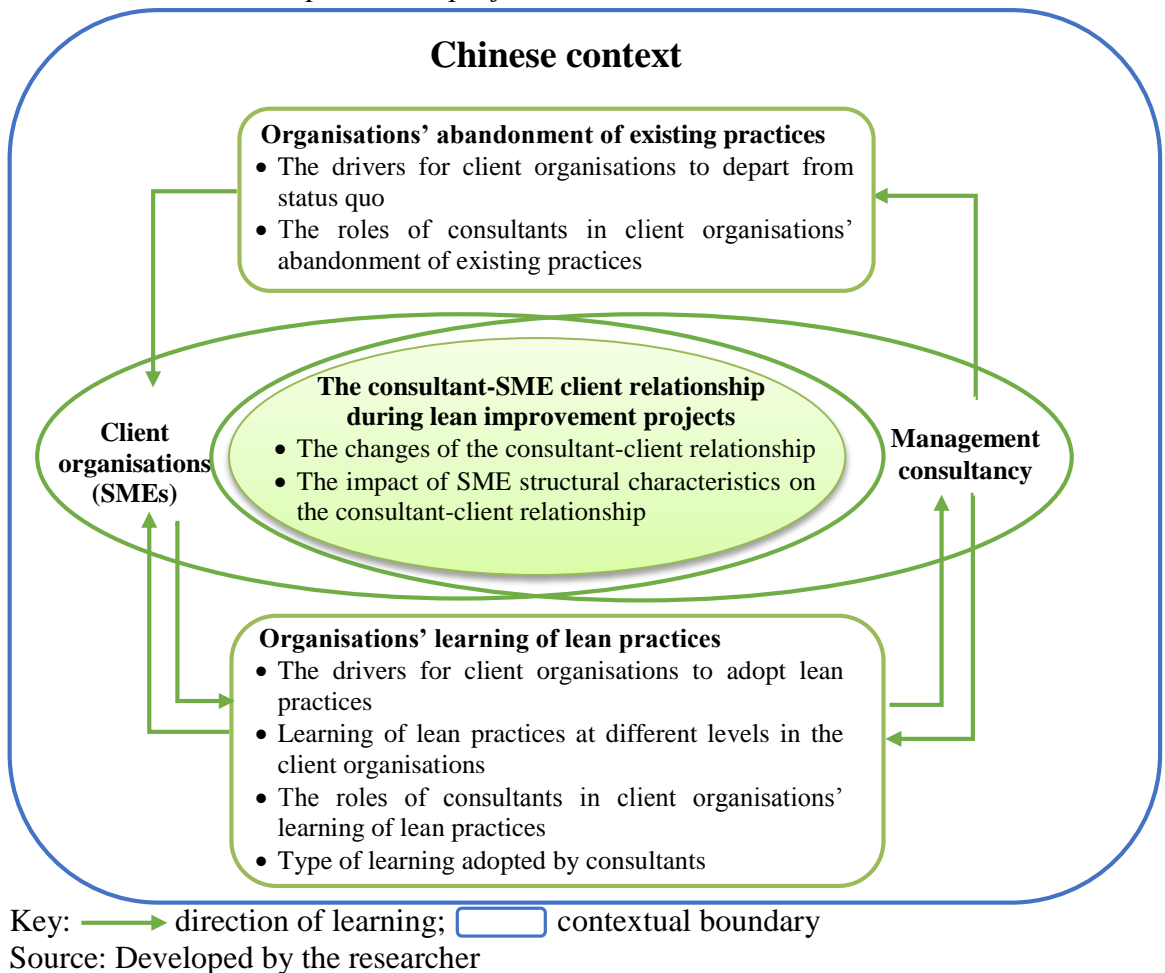
1.4 Research aim, framework and questions

The primary aim of this research is to critique the consultant-client relationship in Chinese SMEs' lean improvement projects. This critique will encompass multiple theoretical lenses in which to address the research gaps identified from the literature review. This research focuses on lean improvement projects. Lewin (1947), cited in Burnes (2004a:985) suggests a three-step model for a successful change project: unfreezing (i.e. destabilising the existing equilibrium in the organisation to enable the change of the old behaviours); moving (i.e. changing to the new way of being) and refreezing (i.e. stabilising a new equilibrium in the organisation to ensure that the new behaviours are safe from regression). Given the resource constraints (e.g. time, research budget, accessibility), this research mainly considers the first two steps of the lean improvement project. The literature review (see Chapter 2 and Chapter 3) identifies four research gaps:

- little academic literature has addressed the changing nature of the consultant-client relationship throughout the consultancy project from both the consultancy's and client organisation's perspectives;
- the impact of SME structural characteristics on the consultant-client relationship is under researched;
- little academic literature has directly focused on the roles of consultants in organisations' learning of new practices such as lean practices; and
- there is a lack of research on the outsider-driven deinstitutionalisation such as the roles of consultants in organisations' abandonment of existing practices.

In line with Lewin’s three-step model, the four research gaps introduced above are categorised as three main themes: organisations’ abandonment of existing practices (i.e. unfreezing), the consultant-SME client relationship during lean improvement projects and organisations’ learning of lean practices (i.e. moving). To facilitate the research process, a framework which covers the main themes of this research has been developed as a result of the literature review (see figure 1.1). This framework will be further explained along with the literature review.

Figure 1.1 The research framework to study the consultant-client relationship in Chinese SMEs’ lean improvement projects



Four research questions have been formulated based on the research framework. These questions will be revisited in the last chapter in light of the results from case studies.

Research question 1: How do consultants and SME clients interact with each other during the lean improvement project? This question discusses the changes of the consultant-client relationship across different consultancy project stages. The connection between this research question and the research theme is shown in figure 1.2. In the academic literature, there are contrasting perspectives on the consultant-client relationship and these perspectives are not well aligned. Instead of asserting the consultant-client relationship as one particular perspective, this research addresses the dynamic nature of the consultant-client relationship by comparing and contrasting consultancy and client organisations' perspectives.

Figure 1.2 Research framework to study the consultant-client relationship in Chinese SMEs' lean improvement projects – research question 1

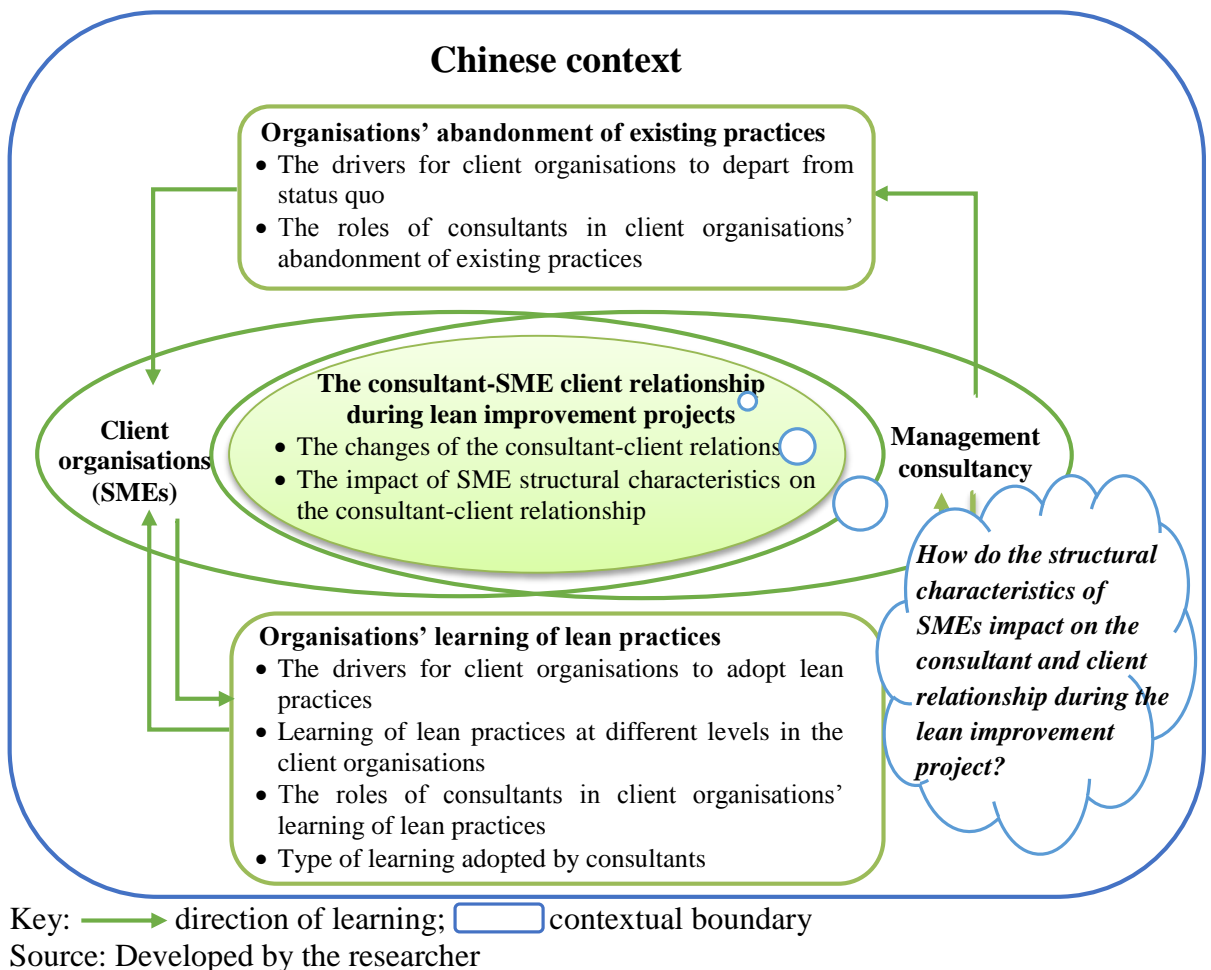


Key: → direction of learning; □ contextual boundary

Source: Developed by the researcher

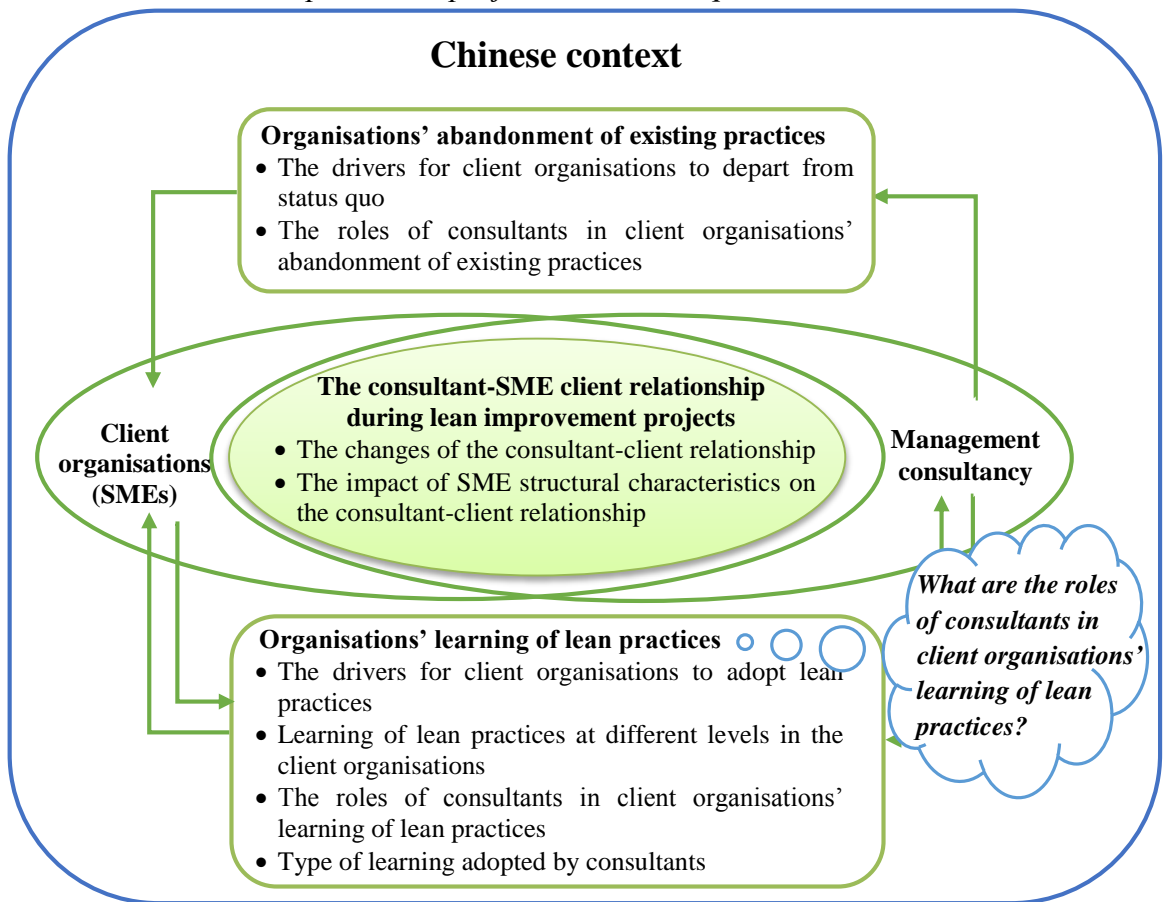
Research question 2: How do the structural characteristics of SMEs impact on the consultant and client relationship during the lean improvement project? This question considers the impact of organisational size (SME) on the consultant-client relationship (see figure 1.3). SMEs in the management consultancy literature have only received limited attention and it is unclear how organisational size can influence the consultant-client relationship. Contingency theorists generally suggest that the organisational structure in small organisations is more likely to be simple and flat. The literature of Chinese SMEs shows that most of the structural characteristics of SMEs suggested by contingency theory are consistent with the Chinese SMEs. This research question will be explicitly discussed based on the empirical evidence from case studies.

Figure 1.3 Research framework to study the consultant-client relationship in Chinese SMEs' lean improvement projects – research question 2



Research question 3: What are the roles of consultants in client organisations' learning of lean practices? This question addresses how lean practices are transferred to different levels in client organisations and the roles of consultants in organisational learning (see figure 1.4). Organisational learning literature provides a useful insight into the learning processes occurring at different levels in the organisation. Management consultancy literature often views consultants as external knowledge suppliers to their client organisations. However, little is known about how organisational learning actually occurs during the consultancy-involved projects and how consultants can influence their client organisations' learning. This research question will be analysed in relation to the results from the case studies.

Figure 1.4 Research framework to study the consultant-client relationship in Chinese SMEs' lean improvement projects – research question 3



Key: → direction of learning; □ contextual boundary
 Source: Developed by the researcher

Research question 4: What are the roles of consultants in client organisations' abandonment of existing practices? This question considers the roles of consultants in the client organisations' abandonment of their long-standing practices (see figure 1.5). Institutional theorists suggest that in addition to adopting new practices, some old and long-standing practices in the organisation may also need to be abandoned. However, the outsider-driven deinstitutionalisation is inadequately researched in the institutional theory and management consultancy literature. This research question will be discussed along with the results from the case studies.

Figure 1.5 Research framework to study the consultant-client relationship in Chinese SMEs' lean improvement projects – research question 4



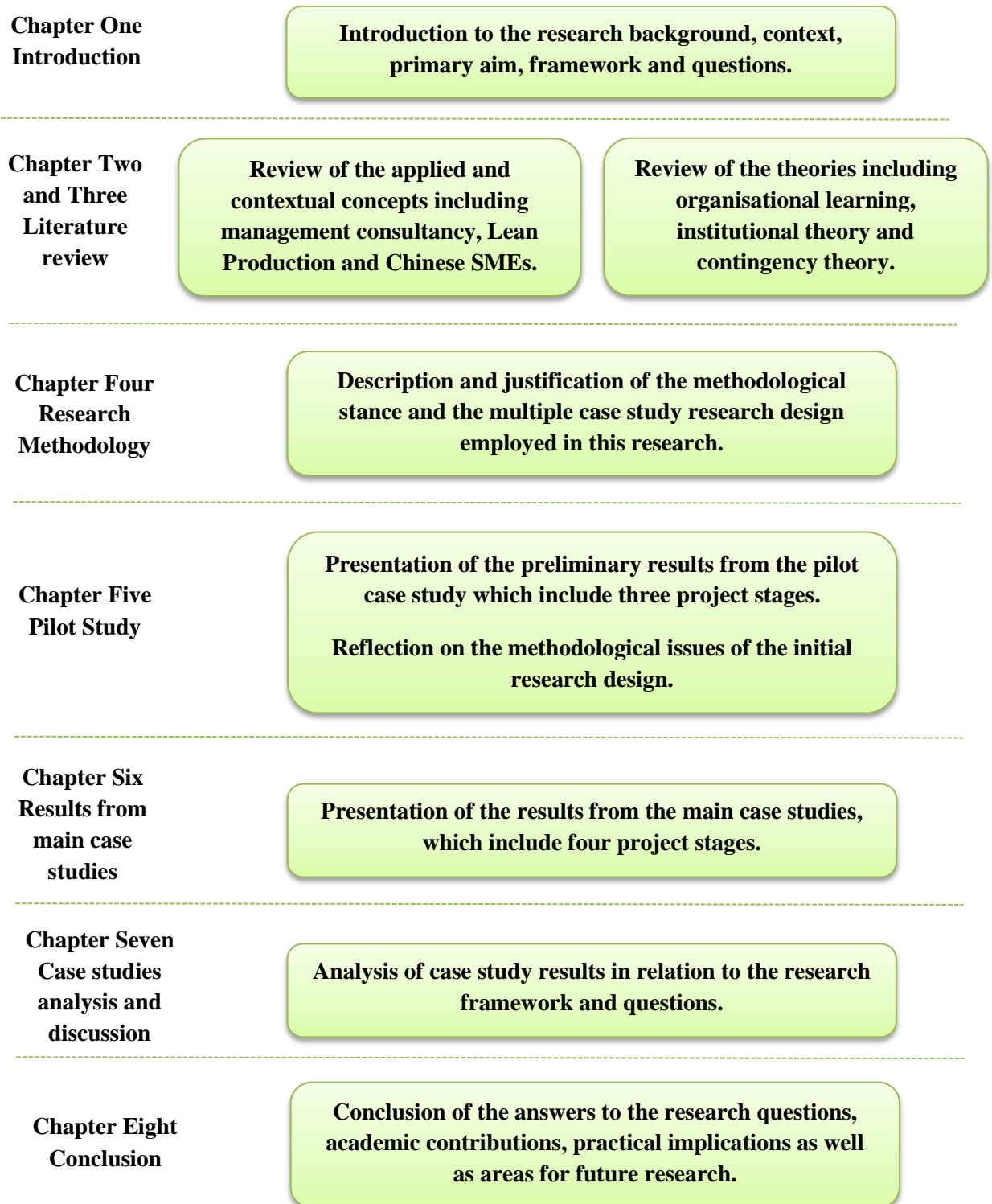
Key: → direction of learning; contextual boundary

Source: Developed by the researcher

1.5 Structure of thesis

The structure of this thesis is visualised in figure 1.6.

Figure 1.6 Structure of this thesis



Source: Developed by the researcher

This thesis is divided into eight chapters. This chapter provides a brief introduction to the background and context of the research. The primary research aim, framework and questions are also provided. Following the introduction chapter, a literature review of the applied concepts and theories employed in this research is provided in Chapter 2 and Chapter 3. Chapter 2 examines the literature in relation to the applied and contextual concepts including management consultancy, Chinese SMEs and Lean Production and Chapter 3 reviews the theories underpinning for this research, including organisational learning, institutional theory and contingency theory. A number of research gaps are identified and the research framework is developed as a result of the literature review.

Chapter 4 describes the methodological stance and methods employed in this research. It justifies the multiple case study research design and the data collection and analysis methods adopted. The data used in this research is mainly qualitative and it is collected from semi-structured interviews, direct (non-participant) observation and documentation. Prior to the main case studies, a pilot case study has been undertaken to test and improve the initial research design and establish some preliminary theoretical propositions of the research area. The ethical and validity and reliability issues associated with the data collection and analysis in the case study research are also discussed in this chapter.

Chapter 5 presents the results from the pilot case study. The scope of the pilot case study covers the initial contact stage, preparation stage, and (early) implementation stage of the consultancy-involved lean project in Autoparts Ltd. The research themes

developed from Chapter 2 and Chapter 3 are addressed. Methodological issues identified from the pilot case study are also discussed and the solutions to further improve the case study research design are provided at the end of this chapter.

Chapter 6 presents the results from the main case studies. The main case studies cover the initial contact stage, the preparation stage, the implementation stage, and the results assessment stage of the consultancy projects. Five consultancy-involved lean projects are investigated including a second visit to the pilot case. The preliminary results from the pilot case study are reviewed in this chapter and new results from other cases are also added.

Chapter 7 analyses the results from the main case studies in relation to the research framework and questions. Three main themes are discussed in this chapter, including the consultant-SME client relationship during lean improvement projects, organisations' abandonment of existing practices and organisations' learning of lean practices.

Finally, Chapter 8 concludes with a review of the research questions and the research framework in light of the empirical data and subsequent analysis. Academic contributions and practical implications are discussed along with the areas for future research. During the process of writing up this thesis, several research papers that link the theories with the contextual concepts and empirical case study results have also

been presented in the academic conferences and published by journals. Appendix 1 provides a list of these papers.

CHAPTER 2 LITERATURE REVIEW

– PART ONE

Chapter 2 Literature Review - Part One

2.1 Chapter introduction

The literature review of this thesis is divided into two parts. The first part includes the applied and contextual concepts while the second part examines the theories underpinning this research. This chapter addresses the applied and contextual concepts that associate with the area of this research.

This chapter consists of four sections. The first section reviews the literature of management consultancy, including the definition of management consultancy, the consultant-client relationship and management consultancy in SMEs. Since this research mainly focuses on consultancy-involved lean improvement projects in Chinese SMEs, the contextual literature which links to client organisations (i.e. Chinese SMEs) and lean improvement (i.e. Lean Production) is also discussed. For the literature of Chinese SMEs, the second section reviews the definitions of Chinese SMEs, the development of Chinese SMEs and the characteristics of Chinese SMEs. Section three reviews the literature of Lean Production and particularly Lean Production in SMEs. The final section concludes the chapter by identifying the potential gaps and issues that the research may contribute.

2.2 Management consultancy

According to Gross and Poor (2008), the first pure consultancy can be traced back to Arthur Little in the U.S. in 1886, which had an emphasis on technology and engineering. Later, consultancy was expanded to advisory services (such as accounting and auditing) and the first true management consultants can be traced to Edwin Booz, James McKinsey and Andrew Kearney in the early twentieth century (Gross and Poor, 2008). After more than 90 years of development, management consultancy is becoming one of the fastest growing sectors in the marketplace (Fincham and Clark, 2002; O'Mahoney and Markham, 2013). Organisations hire management consultants for various reasons. For example, management consultants can provide objective views (Drucker, 1979), specific knowledge, skills, experience (Caldwell, 2003; Dawes et al., 1992; Evers and Menkhoff, 2004; Fincham, 2006; Gattiker and Larwood, 1985), or extra human resources (Alvesson and Johansson, 2002) to improve the current business in the client organisation, or sometimes, they can assist the client organisation to legitimise its ideas and decisions (Armbruster, 2006). To gain a more in-depth understanding of management consultancy, the following sections will review the literature in relation to the definition of management consultancy, the consultant-client relationship and management consultancy in SMEs.

2.2.1 The definition of management consultancy

Management consultancy (or management consulting) is defined differently by different researchers and institutions. Table 2.1 provides some examples of the definitions of management consultancy.

Table 2.1 Examples of the definitions of management consultancy

Year	Authors	Definitions of management consultancy
1963	Johnston	Professional advice and assistance in the field of management (Johnston, 1963).
1975	Steele	Providing any form of help to others (Steele, 1975).
1983	Greiner and Metzger	An advisory service contracted for and provided to organisations by specially trained and qualified persons who assist, in an objective and independent manner, the client organisation to identify management problems, analyse such problems, recommend solutions to these problems and help when requested in the implementation of solutions (Greiner and Metzger, 1983:3).
1985	Frank	An external, professional and independent service with the purpose to solve problems in the field of management (Frank, 1985).
1996	Clark and Salaman	Advisory activity which necessitates intervention in an ongoing system. The advisers are external specialists without organisational responsibility and the aim of activity aligns with the organisational system (Clark and Salaman, 1996: 155)
1998	Canback	Providing advice in the field of general management within a strategic, organisational or operational context. Management consultants are institutionally organised in firms (Canback, 1998:3).
1998	Integral Management Consultancy (IMC) cited in McLarty and Robinson	The service provided to business, public and the other undertakings by an independent and qualified person or persons in identifying and investigating problems concerned with policy, organisation, procedures and methods, recommending appropriate action and helping to implement those recommendations (IMC cited in McLarty and Robinson, 1998:256).
2002	Kubr	Independent professional advisory service assisting managers and organisations to achieve organisational purposes and objectives by solving management and business problems, identifying and seizing new opportunities, enhancing learning and implementing changes (Kubr, 2002:10).
2010	Management Consultancies Association (MCA)	The creation of value for organisations – through improved performance, which is achieved by providing objective advice and implementing business solutions (MCA, 2010:5)

Source: Developed by the researcher

It is observed that, although definitions vary significantly, some agreements can be found. Firstly, management consultancy is an advisory service. Theoretically, management consultants should focus on providing advice, help, or assistance to the client organisation. Secondly, management consultancy is a goal-oriented service. The specific goal of management consultancy may vary between different projects but, as suggested by Clark and Salaman (1996) and Kubr (2002), the goal should fundamentally be in accordance with organisational objectives and systems. Thirdly, problem-solving is one of the most important tasks in management consultancy. According to Greiner and Metzger (1983), Frank (1985), Kubr (2002) and Management Consultancies Association (MCA) (2010), management consultants' tasks are frequently described as identifying problems, diagnosing these problems and solving these problems by providing recommendations or, perhaps, implementing these recommendations.

There are some debates on the nature of management consultancy in the literature. The first relates to the qualification of consultants. While some researchers or institutions (e.g. Greiner and Metzger, 1983; Integral Management Consultancy (IMC), 1998) believe that consultants are qualified professionals, others (e.g. Keeble et al., 1992; Kubr, 2002) point out that in reality, many management consultants directly come from industries without any form of consultancy qualification. Additionally, researchers such as Steele (1975) and Block (2000), who give a broader definition to management consultancy believe that consultants can be anyone who tries to provide help. In this case, it is unnecessary for consultants to possess a qualification or even be specially trained. Gluckler and Armbrüster (2003) argue that there is no formal educational or professional standard in the management consulting industry.

The second debate concerns the externality of consultants. The fundamental question is whether or not the consultant is external to the client organisation. Given the diversity of the definitions of management consultancy, the answer to this question may be more complicated than a simple “yes or no”. Some researchers view consultants as the pure outsiders (i.e. external experts) to the client organisation (e.g. Canback, 1998; Frank, 1985), but as consultants can be defined as anyone, they may also include staff who work within the organisation such as managers or operators or internal consultants (see Scott, 2000). These debates, on the one hand, show the diversity of management consultancy while, on the other hand, they also reveal the complexity of the relationship between consultants and their clients.

Kipping and Clarks (2012) point that the services provided by the consultants are diverse and can be adapted to client organisations’ specific needs and contexts. Hence, it may be problematic to provide a precise definition of management consultancy. It is worth noting the scope of the management consultancy discussed in this research. The management consultancy investigated in this research is the generalist/change management consultancy (O’Mahoney and Markham, 2013:67), which concerns the implementation of operational changes such as the implementation of lean practices to its client organisations. In addition, the management consultants included in this research are institutionally organised in firms (Canback, 1998) and thereby, independent consultants or internal consultants are excluded from this research.

2.2.2 The meaning of the client

While many researchers have discussed the definitions of management consultancy, fewer have explicitly explained the meaning of clients. Fincham (2012) and Hislop (2002) point out that “clients” are somewhat overlooked in management consultancy literature. At a more macro level, the client may be regarded as the organisation where the consultancy project takes place or the one who actually pays the consulting fees (Alvesson et al., 2009). In this case, the diversity of clients exists among different projects. At a more micro level, Schein (1997) argues that sometimes it can be problematic to identify clients within management consultancy projects. To gain a better understanding of clients, he provides a basic model with six types of clients, which are: contact clients (i.e. people who first contact the consultant), intermediate clients (i.e. people who are involved in different activities during the project), primary clients (i.e. people who own the problem), unwitting clients (i.e. people who will be affected but may not know they will be affected by the consultancy project), indirect clients (i.e. people who are “unknown” to the consultants) and ultimate clients (i.e. the community, organisation or groups whose welfare must be considered by the consultants) (Schein, 1997:202).

Hence, to gain a deeper understanding of clients, researchers should not solely focus on the macro-level analysis (i.e. the relationship between consultants and client organisation), but they should also consider the various voices from different members in the client organisation (e.g. managers, supervisors and operators) during the consultancy project (Fincham, 2012; Sturdy et al., 2009b). This is particularly important for lean improvement projects in SMEs. On the one hand, lean improvement

includes changes at both shop-floor and organisational levels (Hines et al., 2004). This implies that consultants may also need to consider their relationship with employees on the shop floor; for example, how to train them. On the other hand, since the organisational structures of SMEs are more centralised with fewer management layers than LEs, it may be more likely for consultants to directly communicate with front-line employees. In other words, the client in the management consultancy projects should not be solely understood as the manager (e.g. senior managers or project managers) but it should also include employees.

2.2.3 The consultant-client relationship

The consultant-client relationship is central to the management consultancy literature (Kipping and Clarks, 2012; O'Mahoney and Markham, 2013). To understand the diversity of the consultant-client relationship, a number of researchers explain different roles of consultants or clients. Table 2.2 summarises some examples of these typologies. The roles of consultants and clients can be further categorised as three different models, namely, expert model, social learning model and critical model (Nikolova and Devinney, 2012; Nikolova et al., 2009- table 2.3).

The expert model represents the traditional view of the management consultants. Christensen et al. (2013) argue that the business model of many consulting companies, which includes sending smart people to solve difficult problems confronted by their clients, has existed for a long period of time. Similarly, Kipping and Armbrüster (2002) indicate that the public image of consultants constructed by the consulting companies

Table 2.2 Examples of the typologies of consultant or client's roles

Year	Authors	Typology of roles
1961	Tilles	Usually managers would like to think consulting as purchase-sale or doctor-patient, but these ways of thinking can be problematic in reality.
1978 1990	Schein	There are three typical models of consultation: the purchase of expertise, doctor-patient and process consultation.
1982	Turner	The consultant's activities can be categorised based on their eight fundamental and hierarchical purposes: providing information, solving problems, diagnosing problems, making suggestions, assisting implementation, building commitment, facilitating learning and improving organisational effectiveness.
1985	Nees and Greiner	There are five types of consultants based on their background, their working styles and the core value they attempt to provide: mental adventurer, strategic navigator, management physicians, system architects, and friendly co-pilots.
1990	Champion et al.	On the basis of the needs of clients, the consultant's nine roles can be presented in a role grid from counsellor to hands-on expert.
1999	Kaarst-Brown	Considering the issues of power, change stages and symbolism in management consultancy, consultants can play five symbolic roles: symbol of change-to-come, changing norms and values, power redistribution, wishing well and empowerment.
2002	Kubr	There are two basic roles of consultants: resource role and process role. According to the consultant's activities in problem solving, the eight typical consultant's roles can be reflected by a non-directive and directive continuum from reflector to advocate.
2004	Kitay and Wright	The consultants who prefer to develop long-term relationship with their client organisations are insiders whereas the consultants who develop the relationships with their client organisations based on market criteria are outsiders.
2011	Lashkarbolouki et al.	There are eight types of consultants: mentor, challenger, driver, facilitator, advisor, researcher, auditor and teacher.

Source: Developed by the researcher

Table 2.3 Summary of different perspectives on the consultant-client relationship

	The expert model	The social learning model	The critical model
Consultant's role	Expert, problem solver	Facilitator of diagnosis and problem-solving; coach	Impression manager, creator of myths
Client's role	Information provider, implementer	Problem solver, coach, implementer	Audience, passive actor, victim
Nature of knowledge	Consulting knowledge is decontextualized, object and rational.	Consulting knowledge is constructed through the client's and consultant's interactions and is embedded in a client-specific context.	Consulting knowledge is ambiguous and idiosyncratic; images, stories and symbols serve as rationality-surrogates.
Knowledge asymmetry	Unidirectional knowledge asymmetry: Consultants as experts have the capacity to solve clients' problems; the client is a lay person and is more or less excluded from the problem-solving process.	Mutual knowledge asymmetry: Consultant and client both possess knowledge important for the problem solving.	Unidirectional knowledge asymmetry: Due to the intangible and interactive character of the consulting work, the client has difficulties in evaluating consultant's knowledge and the value of the provided service.
Power relation	Consultant-dominant: consultants as experts determine the problem solution on the basis of their expertise and professional judgement. The client is dependent on the knowledge of the expert and accepts the consultant's authority.	Balanced relationship: both the consultant and client are powerful and interdependence because both parties possess relevant knowledge and make important contribution to the problem-solving.	Consultant-dominant: the consultant is the powerful and persuasive actor; he or she uses rhetoric, stories and symbols to impress clients and sell management fads. The client is dependent on consultants and the consultant's power is seen as the extension of top management's hierarchical power.
Nature of interaction	The interaction consists of transferring information from client to consultant and the reciprocal transfer of solutions; the nature of communications channels, characteristics of messages and the motivation and absorptive capacity of the involved individuals determine its success.	The interaction is a joint learning process; it is the reciprocal exploration, testing and negotiation of the client's and the consultant's positions, interrelationships and experience.	The interaction consists of consultants creating impressions, images and stories whereas clients act as the audience; rhetorical skills and acts are important aspect of the interaction process.

Source: adapted from Nikolova and Devinney (2012:391) and Nikolova et al. (2009:291)

always refers consultants to knowledge suppliers or donators. In other words, the consultants are considered as the outside experts or professionals who possess objective and standardised professional knowledge (e.g. Greiner and Metzger, 1983; Kubr, 2002; Lippitt and Lippitt, 1978). This professional knowledge is difficult for other individuals, such as managers and employees to get access as they are not specially trained or do not have relevant experience (Freidson, 2001). Consultants are expected to provide suitable solutions to the clients based on identifying and diagnosing problems or implementing the solutions for clients (Kubr, 2002). Hence, consultants can gain legitimacy in the projects by possessing more advanced knowledge than their clients (O'Farrell and Moffat, 1991). In other words, clients rely on consultants' expertise to solve their problems.

Researchers (e.g. Clark, 1995; Fincham and Clark 2002) who adopt a critical perspective to the consultant-client relationship prefer to describe clients as victims rather than knowledge buyers as they fundamentally question the professional status of consultants. As argued by Alvesson (1993) and Starbuck (1992), consultants may possess rare expertise rather than formal qualifications or professional knowledge. Kipping et al. (2006), Mckenna (2006) and Muzio et al. (2010) believe that management consultancy is a very weak profession. The consultants' expertise and the quality of their advice are actually examined by the clients (Starbuck, 1992). Unfortunately, the clients themselves do not have a sufficient understanding of how to judge the consultants' expertise and thereby, it is important for consultants to convince the clients of their expertise and quality of advice by the use of some persuasive strategies, such as impression management and rhetoric (Clark, 1995; Clack and Salaman, 1998). In other words, consultants should ensure that their service is

perceived as valuable and professional (Alvesson, 1993). In this sense, the consultants need to actively control and manage their relationships with clients by constructing positive and favourable impressions of their services (Clack and Salaman, 1998). Nikolova et al. (2009) point out that two impression management strategies are frequently adopted by the consultants to convince their clients: impressing through rhetoric (i.e. using the most favourable language to present a specific claim) and impressing through tangible solutions (i.e. referring the competence of consulting companies to their previous successful tangible solutions). For example, in practice, the consultants may present their ideas through the use of most favourable language and meanwhile, they will show the empirical and visible outcomes of their previous similar projects to further validate their ideas.

In addition to expert and critical models, another model of the consultant-client relationship is named as “the social learning” (or reflective) model (see Nikolova and Devinney’s (2012) study). Confusingly, this is categorised as expert perspective in Werr and Styhre’s (2003) study. Schein (1990, 1999) and Schon (1983) believe that clients possess valuable and practical knowledge of their own organisation. It is important for both consultants and clients to participate in the problem diagnosing and solving processes (Schein, 1990). The consultants should be helpers and facilitators who enable the clients to understand their own organisation (Schein, 1999). In this sense, consultants and clients make equal contributions in the projects (Nikolova et al., 2009).

While there is no simple right or wrong answer to the above three models, Fincham (1999) suggests that researchers should consider the consultant-client relationship as an overarching managerial structure with contingent exchanges. There is no one fixed form of the consultant-client relationship as it may be affected by the contexts and processes of project or, perhaps, different types of clients (Sturdy et al., 2009a). Alvesson and Johansson (2002) argue that an open-ended and contingent approach should be adopted to investigate the consultant-client relationship.

Grounded in four longitudinal case studies, Sturdy et al. (2009b) point out that the consultant-client relationship changes during the consultancy processes and between different clients. There are many forms of interactions between them, for example, the senior managers in the client organisation may view the consultants as their political alliance but employees on the shop floor may position them as the outsiders and the consultants' knowledge base of their client organisation's context may increase when carrying out the project (Sturdy et al., 2009b). Similarly, to understand the nature of the consultant-client relationship, Nikolova et al. (2009) investigate seven consultancy projects in a leading technical consulting company. They argue that none of the above three models (i.e. expert, critical and social learning) can represent the interactions between consultants and clients because they are dynamic during the consultancy processes (Nikolova et al., 2009). They suggest a more inclusive perspective – the consultant-client relationship as the integrated and interwoven social practices, including impression management practice (i.e. persuading and convincing clients of their expertise), problem solving practice (i.e. creating and applying knowledge), and expectation negotiation practice (i.e. building mutual understanding of the expectations) (Nikolova et al., 2009). Whittle (2006) summarises that the paradoxes

in management consultancy can be viewed as the resource for enhancing the understanding of the consultancy-led change.

The above mentioned perspectives on the consultant-client relationship imply that the interactions between consultants and clients in practice can be more complicated than saying that one side controls the other. The interactions between them are affected by the specific situations and contexts that the consultancy project is embedded in (Fincham, 1999; Sturdy, 1997). As argued by Radnor and O'Mahoney (2013), there is still a lack of understanding about how the client organisations' contexts (such as sector differences) can affect the interactions between consultants and clients. Moreover, although some frameworks and models that attempt to illustrate the interactions in the consultant-client relationship have been established by researchers, it is observed that many researchers still prefer to solely emphasise the consultant or client's (particularly managers') perspectives in their studies (e.g. Kaarst-Brown, 1999; Kitay and Wright, 2004; Nikolova et al., 2009). Kakabadse et al. (2006) criticise that while many studies have been published in the field of management consultancy, few of them represent the consultant's perspective. Conversely, Alvesson et al. (2009) and Fincham (2012) argue that many studies have been written from the consultant's perspective and the client's perspective has actually been ignored. These competing perspectives reflect that there still lacks a sufficient understanding of the interactive nature of the consultant-client relationship from both the consultant's and client's perspectives (Engwall and Kipping, 2002; Sturdy et al., 2009a).

2.2.4 Management consultancy in SMEs

Frank (1985) argues that size-related consulting research (particularly consulting in SMEs) has been overlooked and therefore, researchers should make more effort to bridge this gap. To respond to this call, a small group of researchers have started to investigate consultancy projects in SMEs. Some of them have highlighted the importance and the positive impact of management consultancy in SMEs. For example, Nahavandi and Chesteen (1988) report that overall, the surveyed owners or managers in SMEs are satisfied with services provided by consultants and most of them believe management consultancy can benefit their business such as human resource management and business planning. Moreover, as mentioned by Adamson (2000), consultants can facilitate SMEs to bridge their knowledge gaps. Ramsden and Bennett (2005) believe that SMEs are unlikely to be reluctant to external advice, and consultancy is an important source of advices used by SMEs. Most SMEs are highly satisfied with the services provided by the consultants, and they have a high commitment to re-use the consultancy services (Bennett and Robson, 2005). Similarly, Purcarea et al. (2013) indicate that the input from experts and consultants is an important source for SMEs' learning. Soriano et al. (2002) point out that the more concepts and knowledge that managers learn from consultants, the more likely it is for them to implement the plan provided by consultants.

In comparison to these researchers who believe in the importance and benefits of management consultancy in SMEs, other researchers act as “sceptics” or “doubters” (see Johansson, 1999). For SMEs, the results from some studies show the level of using consultants is low and consultants is not a common learning source (Bierly and

Daly, 2007; Storey, 1994). The main concerns of the “sceptics” are twofold. One is the cost issue. Frank (1985) mentions that owners in SMEs are cost-sensitive and Monsted and Fredens (1995), cited in Christensen and Klyver (2006) find that owners from smaller firms believe that services provided by consultants are too expensive. The other concern relates to SMEs’ lack of knowledge and experience of using consulting services. Frank (1985) claims that factors, including unrealistic expectations of owners and low level of readiness, impede the SMEs’ use of management consultancy. Although these perspectives differ from each other largely with various sources of evidence (e.g. data from researchers’ surveys and interviews in different countries), they should be viewed as “complementary” rather than “competing”. In other words, it is possible for SMEs to hire management consultants and enjoy their benefits but, meanwhile, they may also suffer from some problems.

In addition to the above studies, a few researchers have directly looked into the consultant-client relationship in SMEs. Stevenson and Sahlman (1988) generally suggest that owners and managers in small companies should build a new relationship with their external advisers by actively searching and involving management consultants and being more critical of their advice. Most recently, some researchers have recognised the issues of interactions and dynamism in management consultancy projects in SMEs. For example, based on an interactive point of view, Christensen and Klyver (2006) claim that an innovative learning process seldom occurs during the observed consultancy projects since both consultants and clients prefer to believe their professionalism and the positive results from the consulting process. Chen et al.’s (2008) study further reflects how the consultant’s roles and power changes during the project. They suggest that consultants should build a good relationship with the owners

of SMEs at the beginning of consultancy process and SMEs may need a more comprehensive service from consultants, which means that sometimes consultants need to act as internal staff (Chen et al., 2008). Mole et al. (2011) suggest that SMEs are more likely to receive positive outcomes from in-depth (i.e. intensive interactions with clients) advisory services. Although these studies highlight a dynamic consultant-client relationship in consultancy projects, they solely view project managers or owners as the clients and perspectives from other employees (such as supervisors and operators) in SMEs are ignored. Moreover, it is still unclear how the context of SMEs (i.e. SME structural characteristics) may affect the relationship between consultants and different clients.

2.2.5 Summary

The area of management consultancy has attracted many researchers' interests. Table 2.4 summarises the key contributions in management consultancy. From the expert view, consultants possess professional knowledge and can facilitate the client organisation to solve problems. From the critical view, the knowledge possessed by consultants is ambiguous. To convince the managers in the client organisation, consultants need to adopt different persuasive strategies. In this sense, managers are the passive actors and victims in the consultancy project. The social learning model believes that both consultants and clients are valuable to problem solving and they should diagnose and solve problems jointly. However, the consultant-client relationship in practice can be more complicated than saying that one side controls the other. In other words, there is no one fixed relationship between consultants and clients. Contextual factors such as the phases of consultancy project and organisational size should be taken into account.

This research mainly focuses on Chinese SMEs. It is found that only a few researchers have investigated management consultancy in SMEs and they mainly view managers as the clients. In other words, the voices from other clients (such as supervisors and operators) in SMEs are excluded. Furthermore, there is still unclear how the context of SMEs may impact on the consultant-client relationship. Hence, it calls for a more comprehensive understanding of the consultant-client relationship in SMEs. To gain a better understanding of the context of this research, the following sections will review the literature of Chinese SMEs.

Table 2.4 The summary of key contributions in management consultancy

Year	Authors	Key findings
1997	Schein	The meaning of clients in consultancy project is diverse. There are mainly <i>six types</i> of clients.
1998	Clark and Salaman	Consultants <i>convince</i> the managers of the value and quality of their work by adopting some <i>persuasive strategies</i> .
1999	Fincham	There is <i>no one pre-defined form</i> of consultant-client relationship. The consultant-client relationship should be understood within its context.
2002	Kubr	Consultants should be <i>independent</i> during the consultancy project. The roles of consultants in the project can be represented in a directive and non-directive continuum.
2005	Ramsden and Bennett Bennett and Robson	Consultancy is an <i>important source</i> of advices for SMEs and many SMEs are satisfied with consultancy services.
2008	Chen et al.	It is critical for the consultants to build good relationship with <i>the owner</i> of the SME at the beginning of the project as the owner is the <i>key decision maker</i> .
2009	Nikolova et al.	The consultant-client relationships are the <i>interwoven social practices</i> including managing impressions, problem solving and expectations negotiation.
2009a,b	Sturdy et al.	The boundaries between consultants and clients should be carefully considered in relation to the types of boundaries, the types of clients and the consultancy processes.
2012	Kipping and Clarks	Given the diverse services provided by the consultants, it can be <i>problematic</i> to give a <i>precise definition</i> of management consultancy.
2012	Nikolova and Devinney	<i>Three typical models</i> of the consultant-client relationship can be found in the management consultancy literature: the <i>expert model</i> , the <i>critical model</i> and the <i>social learning model</i> .
2013	Christensen et al.	The <i>public image</i> of consultants constructed by the consulting companies represents an <i>expert</i> view of consultants.

Source: Developed by the researcher

2.3 Chinese SMEs

“China overtook Japan to become the world's second-largest economy in February 2011.” (BBC News, 2011).

“SMEs have played an important role in the (China's) economy, easing employment pressure, boosting non-governmental investment and helping in bringing about market prosperity.” (Cunningham and Rowley, 2010: 319).

“In company with China's reform and opening up and development of market economy, SMEs, a special enterprise colony, are playing a redoubtable role in China's economy.” (Zhang and Tao, 2012:126).

2.3.1 The definition of Chinese SMEs

SMEs are defined differently in different countries. Criteria such as number of employees, annual turnover, the value of net assets or output are frequently employed by governments and institutions. However, researchers from the contingent point of view contend that it is the number of people that closely relates to the internal organisational structure rather than other aspects. Child (1973) suggests that organisational size should be represented by the number of employees. Additionally, the number of employees is the most common criterion employed by different countries to define SMEs. To ensure consistency, the number of employees is mainly employed to illustrate the definition of SMEs in this research. Table 2.5 summaries the definitions of SMEs in different countries (excluding China).

Table 2.5 Definitions of SMEs indifferent countries (excluding China)

Country	Categories	Number of employees
Australia	Micro business	No more than 4 employees
	Small business	No more than 19 employees
	Medium business	20-199 employees
Canada	Small business	No more than 99 employees
	Medium business	100-499 employees
European Union	Micro business	No more than 9 employees
	Small business	No more than 50 employees
	Medium business	No more than 250 employees
Japan	Small business (manufacturing)	No more than 19 employees
	Medium business (manufacturing)	20-300 employees
United Kingdom	Consistent with EU	Consistent with EU
United States	The size standards vary from manufacturing sector to service sector	In manufacturing sector, typically, the SMEs should employ no more than 500 employees

Source: Adapted from Department of Innovation Industry Australian Government, (2011); European Commission (2011); Japanese Small and Medium Enterprise Agency (2013); U. S. Small Business Administration (2012); Industry Canada (2013)

The definition of SMEs in China has been revised several times since 1949. In 2011, the latest version was jointly issued and published by the Ministry of Industry and Information Technology (MIITb), National Bureau of Statistics (NBS), National Development and Reform Commission (NDRC) and Ministry of Finance (MOF). The size standards differ from one sector to another. Table 2.6 summarises the new standards for Chinese SMEs in some sectors.

Table 2.6 The definition of Chinese SMEs

Sector	Categories	Number of employees
Manufacturing	Micro business	No more than 19 employees
	Small business	20-299 employees
	Medium business	300-999 employees
Retailing	Micro business	No more than 9 employees
	Small business	10-49 employees
	Medium business	50-299 employees
Transportation	Micro business	No more than 19 employees
	Small business	20-299 employees
	Medium business	300-999 employees
Catering	Micro business	No more than 9 employees
	Small business	10-99 employees
	Medium business	100-299 employees
Information Transmission	Micro business	No more than 9 employees
	Small business	10-99 employees
	Medium business	100-1999 employees
Software and Information Technology services	Micro business	No more than 9 employees
	Small business	10-99 employees
	Medium business	100-299 employees

Source: Adapted from MIIT (2011b)

Compared to other countries, such as the UK and Australia, the definition for Chinese SMEs is broader and includes larger organisations. However, considering the huge size and labour intensity of production of China, the organisations listed above can still be identified as relatively smaller organisations in the Chinese context (Cunningham, 2011).

2.3.2 The development of Chinese SMEs

The development of Chinese SMEs cannot be separated from the evolution of China's economic and political environment. In 1978 the Chinese government enacted a range of reforms and open-door policies (Alistair et al., 2003). These policies contributed remarkably to the development of China's economy transforming from centralist-planned to becoming more market-based (Wei, 1995). In other words, enterprises were encouraged to produce different types of products based on real market requirements rather than a central-controlled and administrative plan. It implies that the decision-making power was shifted from the central government to local governments and enterprises. Hence, it is easier for SMEs to get access to the needed production materials and to understand the market requirements (Cunningham, 2011).

Instead of supporting the state-owned (i.e. enterprises owned wholly by the state) enterprises, the open-door policies actually encouraged the development of non-state-owned SMEs such as privately owned enterprises. These SMEs were allowed to obtain materials from large state-owned enterprises (Alistair et al., 2003; Dana, 1999). The statistical data shows the number of registered small business owners increased from 1 million in 1980 to 1.47 million in 1982 and, to 2.31 million in 1983 (Dana, 1999). Given the increasing number of SMEs and the growing importance of non-state-owned enterprises, the privately owned enterprises were legally positioned as "the supplement" to the socialist public economy in Chinese constitution in 1988 (Chen, 2006).

In addition to 1978 and 1988, 1992 was another important milestone for the development of both China's economy and SMEs. The position of privately owned enterprises in China's economy was reinforced and legitimised during Deng Xiaoping's (who is recognised as the "the chief architect of china's reform opening and modernisation drive") Southern Tour (Alistair et al., 2003). In the same year, the fourteenth National Congress was held in Beijing to accelerate the steps of China's reform opening and modernisation and the establishment of a socialist market system was set up as the target of China's economy development (Chen, 2006; Rawski, 1999). As the position of non-state-owned economy was strengthened, the number of SMEs in the private sector increased considerably from 1992 to 1997 (Alistair et al., 2003).

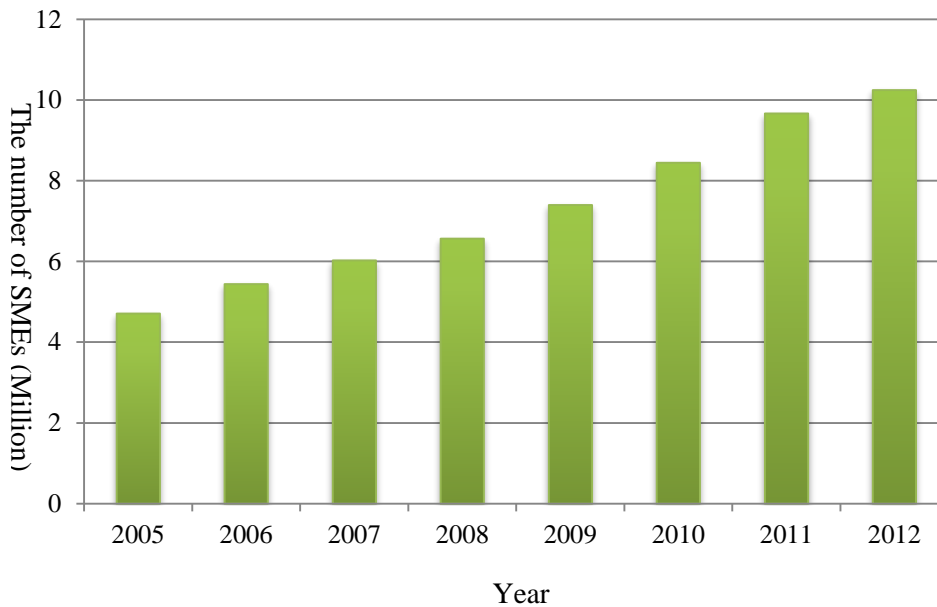
As the Chinese government implemented a series of policies to restructure the state-owned enterprises, a large number of workers were laid off from 1993 (Gu, 1999). The statistical data shows that the redundant workers from state-owned enterprises reached 5.5 million and 8 million in 1995 and 1996, respectively, and in 1997, it increased to 11.5 million (Gu, 1999). SMEs created many opportunities for these workers to be re-employed and actually, more than 4 million workers were employed by privately owned enterprises in 1997 (Fan, 2003). Considering the growing importance of non-state-owned enterprises in China's economy, the fifteenth Party Congress (held in 1997) claimed that the non-public sector should be positioned as "an important component part of China's socialist market economy" (Baum, 1998).

To further facilitate and stimulate SMEs' development, several government agencies were formed after 1997. A specific division for SMEs, which belonged to the State

Trade and Economic Commission, was established in 1998, and it aimed to develop and provide policies and guidance for SMEs. Another division named the All-China Working Management Group for Promoting the Development of SMEs was also formed in 2000 (Fan, 2003). When China formally became a member of World Trade Organisation (WTO) in 2001, SMEs confronted both challenges and opportunities. On the one hand, it means opportunities to coordinate with foreign companies and sell products worldwide; on the other hand, SMEs needed to compete with more foreign companies, who were equipped with advanced technology and management methods. To legally protect SMEs, the SME Promotion Law of PRC was enacted in 2003 (Chen, 2006). Tasks such as improving policies and removing institutional barriers for the further development of SMEs and stimulating scientific and technological innovations in SMEs were included in the law (Chen, 2006).

Meanwhile, policies related to income-tax, investment and loan were also developed and issued to better finance the SMEs (Fan, 2003). Given the support from the law and the policies, the number of registered SMEs represented 99.7% of total registered enterprises in 2007. Around half of these SMEs belonged to the manufacturing sector (Liu, 2008). By the end of 2011, there were approximately 10 million registered SMEs in China and these SMEs contributed to 80% of employment, 60% of industrial output, and over 50% of national tax revenue (All-China Federation of Industry and Commerce, 2011). Hence, instead of “an important component”, SMEs was positioned as the “important force” for China’s economy in 2009 (Cunningham, 2011). Figure 2.1 shows the number of SMEs from 2005 to 2012.

Figure 2.1 The number of SMEs from 2005 to 2012*



*Note: This data excludes the number of self-employed entrepreneurs

Source: MIIT-China Centre for Promotion of SME Development (2012)

The global financial crisis which occurred between 2007 and 2008 negatively impacted on the development of Chinese SMEs (Cunningham, 2011). Many SMEs that relied on exporting went bankrupt. The total foreign trade volume of exports decreased from 380.698 billion (US dollars) in 2008 to 338.439 billion (US dollars) in 2009 (All-China Federation of Industry and Commerce, 2011). Additionally, the labour cost, which was considered as the main advantage of Chinese SMEs, increased considerably after 2007. Several regulations have been issued by the Chinese government to protect workers' rights and interests since 2003. The average monthly wage in China increased from around 300 (US dollars) in 2007 to over 600 (US dollars) in 2012 (Morrison, 2013). In comparison to other developed countries, such as the US and UK, the labour-cost is still relatively lower in China. However, it is higher than in other developing countries, such as Indonesia and Vietnam (Morrison, 2013).

Researchers predict that the labour-cost in China will continue to increase in the future and will finally become similar to those in developed countries (Panizzolo, 2013).

Thereby, instead of solely relying on low-cost labour force, Chinese SMEs are confronting challenges to innovate and improve, at both technological and managerial levels (Cunningham, 2011). To better help and finance SMEs, the growth plan for Chinese SMEs (which was embedded in the twelfth Five-Year Program period (2011-2015)) was issued by MIIT in 2011 (MIIT, 2011a). The plan encouraged SMEs to upgrade their management level and management consultancy was suggested as an important means to facilitate innovation in SMEs (MIIT, 2011a). The most recent news from China Enterprise Confederation Management Advisory Committee (CECMAC) shows that a network platform that collects the information of consultants (who are willing to provide services to SMEs) is being developed for SMEs (CECMAC, 2014). As mentioned in the plan, Chinese SMEs will continue to grow and play an important role in China and the world's economy with both opportunities and challenges in the future (MIIT, 2011a). Table 2.7 summarises the key events in the development of Chinese SMEs.

Table 2.7 Summary of key events in Chinese SMEs' development

Year	Events	The position of SMEs	
1978-1979	Enacted reform and open-door policies and encouraged the development of non-state-owned enterprises.	Not explicitly mentioned	
1988	Amended Chinese constitution and formally recognised the importance of non-state-owned enterprises.	The “supplement”	
1992	Enhanced and legitimised the position of non-state-owned economy through Deng Xiaoping’s Southern Tour and the 14th National Congress.		
1997	Non-public economy was re-positioned in the 15th Party Congress.		An “important component”
2000	All-China Working Management Group for Promoting the Development of SMEs was established.		
2001	China formally became a member of WTO which meant both opportunities and challenges for SMEs.		
2003	Enacted the SME Promotion Law of PRC.		
2007-2008	The global financial crisis occurred and a number SMEs which relied on exporting went bankrupt.		
2009	SMEs were positioned as the important force by the State Council of PRC in its official document.	The “important force”	
2011	Issued the growth plan for Chinese SMEs.		
2014	A network platform that includes consultants’ information is being developed for SMEs.		

Source: Adapted from Cunningham (2011) and Fan (2003)

2.3.3 The characteristics of Chinese SMEs

In comparison to LEs, the organisational structure in SMEs is simpler and flatter with relatively higher level of centralisation, lower levels of job specialisation, formalisation and standardisation (Blau et al., 1976; Pugh et al., 1969). According to Wong and Aspinwall (2004), owners play an important role in SMEs because most decisions are directly made and restricted by the owners' perspectives. Instead of giving authority to their employees, owners of SMEs seek to tightly control and manage almost every aspect of their business and thereby, operations and employees' behaviours in SMEs can be highly influenced by the owners' outlook (Burns and Dewhurst, 1996; Filion 1991; Yusof and Aspinwall, 2000). In the context of China, this "command and control" characteristic (i.e. highly centralised decision-making process) has its root in traditional Chinese culture (i.e. Confucianism).

According to the basic guides advocated by Confucius, subjects should follow and be guided by the ruler, sons should follow and be guided by their father, and wives should follow and be guided by their husband (Hofstede and Bond, 1988; McGreal, 1995). In this sense, respecting the established hierarchy (i.e. juniors and young people should respect seniors and older people) as embedded in these three basic guides, constitutes the central aspect of Confucianism (Whitley, 1992). Instead of criticising others, Confucius highlights the importance of harmony, which means that members in the same clan should keep reciprocal relationships with each other (Bond, 1991; Child, 1994). To maintain harmony, keeping or saving *mianzi* (face) is important (Zhao, 1994). If the employee challenges his or her manager and directly points out the manager's mistake in front of other employees, the manager loses his *mianzi*. This

kind of behaviour is discouraged in traditional Chinese culture because it breaks harmony (Bond and Hwang, 1986; Bond and King, 1985; Zhao, 1994). Hence, Chinese SMEs are described as paternalistic, which implies that decisions are more likely to be made by the owners or at least managers at a senior level rather than younger and less experienced middle managers or employees (Redding, 1993). Owners or senior managers in Chinese SMEs usually adopt a tight coordination and control approach to manage their organisations (Siu and Glover, 2001). Huang (2009) examines the strategic decision making processes in Chinese SMEs and contends that decisions are normally directly made by owner-managers.

Both Child (1987) and Warner (1993) argue that although since 1978 China's economy has been reformed from a central planned to more market based and decentralised mechanism, the internal organisational structure still seems to be centralised in SMEs because strategic decisions are tightly controlled by senior managers. Laaksonen (1988) compares and contrasts the scale of the managers' influence over all the decisions among different countries and demonstrates that while both top management and middle management in Europe and Japan have high influence over decisions, middle management in China's enterprises have little impact on the overall decision-making process and thereby, the decision-making in Chinese SMEs is mainly held by top management. Employees have limited autonomy and they are normally required to follow the senior managers' decisions and thereby, the level of employees' participation in the decision-making process is low and the opportunities for them to criticise the managers' decisions are limited (Warner, 1993; Xia et al., 2009).

Given the higher level of centralisation and the relatively smaller number of employees, the structure of SMEs is flatter with fewer management layers (Hudson et al., 2001). Compared to LEs, which have more management layers, the senior managers in SMEs are visible to employees and it is more likely for senior managers in SMEs to have direct contact with the organisation's operations functions (Gélinas and Bigras, 2004). In other words, managers work closely with operators and are more familiar with the operators' daily work. Hence, they are more likely to focus on solving the tactical problems that relate to daily operations. With fewer management layers, the communication between managers and operators in SMEs is expected to be direct and the decision-making process should be shorter and quicker than LEs (Ghobadian and Gallear, 1997; Yusof and Aspinwall, 2000). For Chinese SMEs, similarly, the length of time for decision-making is faster than LEs because the owners or senior managers usually possess more knowledge of their organisations' operations (Huang, 2009).

Another characteristic of SMEs is the lower level of functional specialisation. Unlike LEs, who possess a number of specialists with expertise in specific areas, SMEs have more generalists (Wong and Aspinwall, 2004). Employees in SMEs usually cover more than one task and thus, there is a lack of specific or clear job descriptions in SMEs (Gélinas and Bigras, 2004; Sousa and Aspinwall, 2010). In China, SMEs are criticised because they lack technical experts. Xia et al. (2009) investigate ERP implementation in Chinese SMEs and find that most Chinese SMEs do not employ IT engineers. Similarly, based on surveying 188 Chinese SMEs in the manufacturing sector, Xie et al. (2010) indicate that over 65% of surveyed SMEs respond that the number of technical experts is below 10% of their total employees.

Although employees in SMEs are expected to accomplish multiple tasks, the educational level of employees in Chinese SMEs is low. For example, Li and Matlay (2005) point out that despite the rapid expansion of the higher education sector in China and increasing competition in the job market, many Chinese graduates still view LEs as their target career option. According to Cunningham and Rowley (2007), over 40% of Chinese SMEs report that less than 5% of their employees possess “A level” qualifications. It may be argued that educational qualifications should not be equal to the knowledge of work as most jobs in SMEs are practical and operational. However, educational qualifications at least reflect on the quality of employees and actually, a lack of qualified employees has been the main concern for many Chinese SMEs (Cunningham and Rowley, 2007; Singh et al., 2010). Tang et al. (2009) further indicate that the quality of managers in Chinese SMEs is not high either. Fewer than 20% of colleges and universities in China provide formal entrepreneurship programmes to SMEs owners, and SMEs owners or senior managers lack sufficient knowledge of business planning, human resource management, and financial management (Tang et al., 2009). Singh et al. (2010) agree that, even though the Chinese government and universities provide some programmes to support SMEs, the owners and senior managers’ expertise in the areas of management and finance remains under developed.

In comparison to LEs, which are governed by formal and standardised procedures, rules and policies, the management and operations systems in SMEs seem to be more flexible and informal (Antony et al., 2005). Instead of adopting advanced and sophisticated technologies, SMEs usually choose simple planning, control and operations systems with less developed technologies (Kennedy and Hyland, 2003;

Prater and Ghosh, 2006; Temtime et al., 2003). Warner (1993) and Verburg et al. (1999) believe that most Chinese SMEs (particularly privately owned SMEs) operate in a flexible and informal system with less standardised operations procedures, performance assessment methods, and policies. Hence, employees in Chinese SMEs are more likely to rely on their own experience to carry out their daily work. As argued by Siu and Glover (2001), many Chinese enterprises still adopt old and outdated practices that inhibit them from better meeting customer requirements. As stated in the growth plan for Chinese SMEs, SMEs still lag behind most LEs at the technological and managerial levels and thereby, the plan suggests that one of the most important tasks in the next five years for Chinese SMEs is to develop their technology and management skills (MIIT, 2011a).

2.3.4 Previous research

Studies (published in English) which directly relate to management consultancy and lean improvement in Chinese SMEs are rare. Chen et al. (2008) discuss the consultant-client relationship in SMEs in Taiwan. However, their study mainly focuses on the power relations between consultants and managers. The voice from employees is ignored and learning issues during the consultancy project are not covered. Gunasekaran and Lyu (1997) investigate Just-in-Time (JIT) implementation in a Taiwan SME. They briefly mention that training (or educating) managers and employees plays a crucial role in JIT implementation in the observed SME. However, they do not address how learning actually occurs at different levels in the SME. A further search in Chinese academic databases (for articles written in Chinese) shows that only a small group of Chinese researchers consider issues of management

consultancy in Chinese SMEs, and most studies (e.g. Gao, 2003; Sun, 2006; Wei, 2004; Wen, 2010) are conceptual and prescriptive (i.e. focusing on providing recommendations to SMEs on how to manage the consultants). Considering the growing global importance of China's economy and the central role of Chinese SMEs play, conducting empirical research provides opportunities for practitioners (such as consulting companies and managers in Chinese SMEs), researchers, and policy makers to better understand the interactions between consultants and clients and organisational learning issues during the consultancy processes.

2.3.5 Summary

Chinese SMEs play a dominant role in China's economy (the second largest economy in the world). Reviewing the relevant literature of Chinese SMEs enables the researcher to better explain and understand the development and the characteristics of Chinese SMEs. Table 2.8 summarises the key findings of literature relating to Chinese SMEs.

Table 2.8 The summary of literature relating to Chinese SMEs

Year	Authors	Key findings
1986	Bond and Hwang	In traditional Chinese culture (i.e. <i>Confucianism</i>), keeping or saving one's <i>mianzi</i> (i.e. face) is important.
1988	Laaksonen	The <i>decision-making process</i> is controlled tightly by the <i>owners</i> of Chinese SMEs. Middle managers and other employees are less likely to be involved in the decision-making process.
1993	Redding	Chinese SMEs are <i>paternalistic</i> .
1999	Verburg et al.	Most Chinese SMEs are operating in an <i>informal and flexible operations system</i> .
2001	Siu and Glover	The work plans and instructions in Chinese enterprises are highly <i>informal and changeable</i> .
2003	Fan	With the evolution of China's political and economic environment, Chinese SMEs has been <i>an important component</i> to China's economy.
2006	Chen	The political environment for Chinese SMEs is evolving. <i>Chinese SMEs</i> are encouraged to adapt themselves to the environmental changes by <i>enhancing their overall qualification, training, management and technology</i> .
2007	Cunningham and Rowley	The <i>educational level</i> of most employees in Chinese SMEs is low.
2009	Xia et al.	The level of <i>specialisation</i> in Chinese SMEs is low and most Chinese SMEs lack technical experts.
2009 2010	Tang et al. Singh et al.	Even the SMEs <i>owners and senior managers lack sufficient knowledge</i> of business management.
2011	Cunningham	After more than 35 years' development, <i>Chinese SMEs</i> has become <i>the main force for China's economy</i> . The characteristics of Chinese SMEs are influenced by the traditional Chinese culture.
2013	Morrison	The <i>labour-cost</i> in China is increasing and it may no longer be a competitive advantage for most Chinese enterprises such as SMEs.

Source: Developed by the researcher

2.4 Lean Production

The business environment for most organisations becomes increasingly competitive and thereby, to survive and thrive, it is necessary for them to manage changes at strategic and (or) operational level (Burnes, 2004b; Luecke, 2003). Todnem By (2005:370) summarises that organisational change which is triggered by both internal and external factors can occur “*in all shapes, forms and sizes*” and influence “*all organisations in all industries*”. These different types of organisational changes can be reflected by change initiatives and projects such as Total Quality Management (TQM), Business Process Re-engineering (BPR) and Lean Production (which is the main focus of this research).

The origins of Lean Production can be traced back to the development and innovation at Toyota Motor Corporation (Holweg, 2007), which was originally known as Toyota Production System (TPS) and was famous for its JIT philosophy in the mid-twentieth century (Hines et al., 2004). Lean thinkers who worked at Toyota fundamentally challenged the traditional methods of production – mass production – by arguing that large batches led to large size of inventories and extra costly storage space and, additionally, the traditional methods of production cannot meet different customer requirements (Cusumano, 1985). Hence, Taiichi Ohno, who has been recognised as “the guru” in the field of Lean Production, suggested that the best way to operate the production processes was to assemble the parts and components “*at the side of the line just in time for the user*” (Ohno, 1988, p.75). Ohno and other lean thinkers such as Shingo at Toyota also proposed the idea of *muda* or waste (i.e. any activity that does not add value) elimination including the waste of overproduction, waiting, defects,

transport, unnecessary motions, over processing, and unnecessary inventory (Ohno, 1985; Shingo, 1989).

Although Toyota gained remarkable benefits from TPS and JIT, other western organisations in the manufacturing sector did not seriously take Lean Production into concern until the late twentieth century. Krafcik (1988a) has been considered as the first author who proposed the term “Lean” in his thesis at Massachusetts Institute of Technology (Moyano-Fuentes and Sacristan-Diaz, 2012; Shah and Ward, 2007). Later, Lean Production was popularised by the book entitled “*The Machine that Changed the World*” which emphasised the significant performance gaps between Toyota and other organisations in the automotive industry (Womack et al., 1990). Given the success of “*the machine*” book, Lean Production has attracted many researchers and practitioners’ interests. Many researchers (e.g. Bartezzaghi, 1999; Harrison and Storey, 1996; Shah and Ward, 2003; Voss, 1995) believe that it plays a key role in the field of operations management. Moreover, lean implementation has evolved from the shop floor to the supply chain (e.g. Helper and Sako, 1995; Hines et al., 2002; Lamming, 1996), from the manufacturing sector to the service sector (e.g. Ahlstrom, 2004; Bicheno, 2008; LaGanga, 2011; Piercy and Rich, 2009; Suarez-Barraza et al., 2012) and, most recently, from the private sector to the public sector (e.g. Burgess and Radnor, 2013; Hines and Lethbridge, 2008; Radnor, 2010; Scorsone, 2008). The benefits of lean implementation, such as reduced cost, improved quality, fast delivery and better customer service are frequently addressed by researchers and practitioners (e.g. Bicheno and Holweg, 2009; Krafcik, 1988b; Liker, 2004; Womack et al., 1990; Womack and Jones, 2003). The following sections will discuss the definition of Lean Production, lean implementation and lean implementation in SMEs.

2.4.1 The definition of Lean Production

When researching Lean Production, one of the most fundamental questions is: “what is Lean Production?” This literature review shows that there is no single and standard answer to this question (Pettersen, 2009). Karlsson and Åhlström (1996) argue that the Lean Production lacks a precise definition and therefore, organisations that adopt Lean Production cannot easily assess whether their changes are actually consistent with the concept of Lean Production. Similarly, Bartezzaghi (1999) points out that, although Lean Production plays a dominant role in operations management, it still lacks a clear definition. Shah and Ward (2007) agree that the concept of Lean Production is not well defined and thereby, it is difficult for both researchers and practitioners to measure the effect.

A further examination of the literature shows that several researchers (e.g. Faisal et al., 2006; Koh et al., 2007) have proposed a tool-based definition and in this case, Lean Production means the use of a range of lean practices such as 5S (or 6S) approach, 5 Whys (for root cause analysis), cellular manufacturing, JIT, Kaizen, Kanban system, Single-Minute Exchange of Die for quick changeover (SMED), standard work, Total Productive Maintenance (TPM), Value Stream Mapping (VSM) and visual management to reduce cost. As observed by Bicheno and Holweg (2009), for many researchers and practitioners, Lean Production starts with the application of lean practices separately: “*5S here, SMED there, Kanban here and there*” (Bicheno and Holweg, 2009:2). In this sense, one of the most important tasks in lean implementation is to select and adopt these practices.

However, it is argued that Lean Production is more than mechanically picking up and implementing several practices (Bicheno and Holweg, 2009; Liker and Meier, 2006; Mazur et al., 2012; Moore, 2001; Olexa, 2002). The five fundamental lean principles suggest that Lean Production should enable organisations to specify value (i.e. identify the customer value for a specific product), identify the value stream (i.e. map and analyse all the required activities and processes for a specific product), let the value-adding processes flow, let customer demand pull the production and be perfection (i.e. continuously improve the current system) (Womack and Jones, 2003). Hence, some researchers (e.g. Chen et al., 2010; Smith et al., 2003) point out that Lean Production should be viewed as a management or production system that is driven and pulled by actual customer requirements. In this case, managers should challenge their current production system by stopping pushing the products to their customers and rethinking the actual customer requirements.

Some researchers (e.g. Bhasin and Burcher, 2006; Bicheno and Holweg, 2009; Hines et al., 2004; Liker and Meier, 2006; Womack and Jones, 2003) have argued that Lean Production should be considered as a management philosophy or a way of thinking that enables organisations to continuously add customer value and banish waste. Womack and Jones (2003) adopt the term “Lean Thinking” to highlight that Lean is a way for organisations to continuously do more with less and better understand their customers. Liker and Meier (2006) argue that the success of Toyota is based on its lean philosophy (i.e. long term thinking and commitment to value adding). Bhasin and Burcher (2006) echo Liker and Meier’s perspective by pointing out that Lean Production should be viewed as a philosophy because lean implementation is a long term journey and should include organisational culture change, as well as applying

lean practices on the shop floor. Similarly, Bicheno and Holweg (2009) again stress that Lean Production should become a way of thinking rather than a collection of practices.

Hines et al. (2004) review the historical background of Lean Production and demonstrate the concept of Lean Production itself is evolving. They also point out that the term “Lean” can be understood at both strategic (i.e. lean thinking towards value adding) and operational levels (i.e. lean practices) (Hines et al., 2004). Pettersen (2009) echo Hines et al.’s perspective by pointing out that any definition of Lean Production may only be valid in a certain time period. Hence, Samuel (2011) suggests that instead of formulating a unified definition, a working definition seems more applicable. In this research, Lean Production is suggested to be viewed as a management philosophy that can provide more opportunities for the researcher to investigate learning and implementation of lean practices in an organisation-wide sense rather than solely focusing on the shop floor.

2.4.2 Lean implementation

The review of literature shows that a number of researchers and practitioners (e.g. Ahmed et al., 2004; Bevilacqua et al., 2008; Kotani, 2007) still prefer to introduce and address the application and positive outcomes of some lean practices at the shop floor level. The main focus of these studies is on detecting problems and solving, or at least improving operations performance at the shop floor level and therefore, the outcomes are normally expected to be waste reduction and quality improvement, such as shorter

lead time or changeover time, better product quality and reduced inventory level and floor space. As discussed in section 2.4.1, lean implementation is more than the use of lean practices on the shop floor and some researchers criticise that solely focusing on adopting lean practices on the shop floor is a “fake” Lean rather than a “real” Lean (Emiliani, 2007). Hence, other frameworks and models have been developed to enhance a more comprehensive understanding of lean implementation.

Womack and Jones (2003) propose a sequential framework for practitioners who plan to implement Lean Production. In their framework, the main phases for the lean leap include getting started, creating the new organisation, installing business system and completing the transformation; each phase covers several sub-steps (Womack and Jones, 2003:270). This framework provides a useful and step-by-step template to guide practitioners. It also suggests that lean implementation is a long term journey in which it takes approximately five years to complete all these phases. The use of lean practices such as VSM and Kaizen on the shop floor are introduced, but, most importantly, this framework emphasises the importance of changes at the organisational level, including the changes of organisational culture (e.g. failure is acceptable), structure (e.g. a permanent department for promoting lean implementation), and policies (e.g. excess employees are sent to promote lean implementation rather than simply firing them) (Womack and Jones, 2003).

Furthermore, issues of training and learning lean-related knowledge during different lean implementation phases are also highlighted. From Womack and Jones’ (2003) perspective, all of the managers and operators should understand lean implementation.

They recognise that consultants may become the providers of lean-related knowledge and suggest that consultants who solely focus on quick problem solving or off-site training may not be helpful (Womack and Jones, 2003:249). However, since this framework mainly aims at giving an action plan to practitioners, issues of consultants' involvement in learning and training are not discussed in detail. Other researchers such as Hines et al. (2004) criticise this framework as being too ideal and prescriptive.

Åhlström (1998) provides a different view of lean implementation. Based on a longitudinal case study, Åhlström's (1998) model of lean implementation shows that managers should simultaneously reduce the layers of the current organisational structure, adopt zero defect system, eliminate waste through the development of multifunctional teams and pull system and ensure support from the vertical information system and team leaders (Åhlström, 1998:333). Although this model considers some changes at the organisational level, such as organisational structure, it mainly focuses on lean implementation at the operational level in order to improve operational performance. Training during lean implementation is only briefly mentioned and issues related to learning the knowledge of lean practices are not explicitly discussed.

Compared to Åhlström (1998) and Womack and Jones (2003) who treat lean implementation as a set of sequences or parallel tasks, Rich et al. (2006) view it as the process of building a house. According to Rich et al. (2006), "the house of lean" should be built by improving the safety and morale on the shop floor through the use of some basic lean practices, such as 5S and visual management. More advanced lean practices,

such as Total Quality Management (TQM), pull system and TPM, which directly contribute to the quality, delivery and flexibility of the processes, constitute the walls of the house and finally, the roof of the house should include performance measurement and policy changes (Rich et al., 2006). Instead of solely introducing processes of lean implementation, Rich et al. (2006) highlight the importance and issues of learning the knowledge of lean practices during these processes. They indicate that learning is the key to lean implementation and the practitioners (particularly managers) should be able to discard (i.e. unfreeze) their traditional way of thinking and doing (Rich et al., 2006). Rich et al. (2006) suggest that including suppliers and customers, or employing professionals from an external environment, such as universities and consulting companies, may be helpful for lean implementation. However, they do not provide a detailed discussion of the roles of consultants in organisations' learning of lean practices and abandonment of the existing practices.

While several models and frameworks are developed to facilitate lean implementation, some researchers (e.g. Hines et al., 2011; Lucey et al., 2005) argue that it is difficult to sustain the improvements made by lean implementation. Lucey et al. (2005) point out that the sustainability of lean implementation positively correlates with employee engagement. This point of view actually reflects on Spear and Bowen (1999) and Spear's (2004) studies, which analyse the unwritten rules underpinning the success of TPS. They argue that the success of TPS is not solely built on the application of lean practices but, instead, it encourages both managers and employees to engage in the improvement processes while managers should act as the teachers who facilitate operators and supervisors to deepen their insights into their daily work (Spear and Bowen, 1999; Spear, 2004). They also indicate that TPS values their employees by

investing in employees' learning and knowledge development, such as establishing a training centre (Spear and Bowen, 1999). Their perspective is later reinforced and developed by other researchers who highlight the importance of respecting employees (e.g. Emiliani, 2007; Liker and Meier, 2006), employee empowerment (e.g. Bateman, 2005), top management commitment (e.g. Liker, 1996; Liker and Meier, 2006), good communication within the organisation (e.g. Allen, 2000), organisational culture and structure change (e.g. Bhasin and Burcher, 2006) in lean implementation. Drawing on the previous studies, Found et al. (2007) and Hines et al. (2011) extend lean implementation from an efficiency oriented improvement to a more effectiveness and sustainability oriented improvement by proposing the "sustainable lean iceberg model". In this model, lean practices for process improvement are viewed as visible elements and they argue that the real enablers for sustaining lean implementation are invisible elements, including strategy (i.e. developing a coherent strategy and vision and communicating this throughout the whole organisation), leadership (i.e. having innovative leaders) and behaviour and engagement (i.e. engaging employees in the implementation) (Found et al., 2007; Hines et al., 2011:16).

There are also a number of studies that consider lean implementation at the supply chain level (e.g. Agarwal et al., 2006; Azevedo et al., 2012; Bruce and Daly, 2004; Hines et al., 2002; Keen and Evans, 2011; Lamming, 1996; MacDuffie and Helper, 1997; Moyano-Fuentes et al., 2012; Towill and Christopher, 2002). However, since this research mainly focuses on improvements made by lean implementation within SMEs, this literature review considers lean implementation within organisations rather than in the entire supply chain.

2.4.3 Lean implementation in SMEs

Achanga et al. (2006) argue that most models or frameworks for lean implementation are established based on researchers' experience with LEs and contingent factors such as organisational size should be accounted for in the future. The results from the literature review show that a few researchers consider the size-related issues of lean implementation. Since the organisational structure of most SMEs is more centralised, the owner managers' commitment to Lean Production plays a dominant role. If the owner managers believe that lean implementation negatively affects their current productivity, then it will be less likely that they will support it (Lee, 1997). Conversely, if they understand that Lean Production contributes to the long-term development of SMEs, then they will be more likely to adopt it (Winston and Heiko, 1990). Due to the low level of specialisation, employees in SMEs have more opportunities to do multiple tasks, which in return enhance their multiple work skills (Lee, 1996). In contrast, researchers such as Lee (1997), Dowlatshahi and Taham (2009), and Mazanai (2012) argue that most employees in SMEs lack formal training and education of using management practices such as lean practices and that this may lead to difficulties in understanding lean practices. This implies that SMEs may need support from consultants, professionals, and perhaps, other supply chain members to help them implement certain lean practices (e.g. Emiliani, 2000). Lee (1996) concerns that the current operations system including process and quality control system may be poor and informal in the SMEs. In this case, if the SMEs decide to learn and implement lean practices, it is necessary to abandon their existing practices and develop the new operations standards and system.

Other researchers have also discussed the scope of lean implementation in SMEs. Most of them (e.g. Brown and Inman, 1993; Finch, 1986; Lee, 1996; Manoochehri, 1988) insist that lean implementation is more likely to be found within the SMEs rather than in their entire supply chains. According to Stuart and Boyle (2007), lean implementation is rarely found beyond the factory floor of SMEs. Karlsson and Åhlström's (1997) contend that lean principles are applicable to the entire supply chains of SMEs because the uniqueness of the technology purchased by SMEs enhances their relationship with suppliers (Karlsson and Åhlström, 1997). This research mainly focuses on lean implementation within the SMEs and thereby, it will not discuss the lean supply chain of SMEs in detail.

Frameworks and guidelines of lean implementation in SMEs have been developed. Some researchers (e.g. Gupta and Brennan, 1995) focus on the visible elements of lean implementation such as introducing the application of different lean practices on the shop floor in SMEs, but few researchers value the invisible elements such as organisational culture, strategy change and engaging and educating managers and employees (e.g. Dora et al., 2013; Panizzolo et al., 2012; Timans et al., 2012). Gunasekaran and Lyu (1997) and Van Landeghem (2011) suggest that teaching and training employees rather than directly asking them to use lean practices should be the key step for lean implementation. Dombrowski et al. (2010) propose three different training approaches to facilitate lean implementation, which are: formal experts-training approach, cascade approach and method adoption by a worker approach. However, there is still a lack of understanding in terms of how learning occurs at individual, group and organisational level during lean implementation.

2.4.4 Summary

Since this research focuses on consultancy-involved lean improvement projects in SMEs, reviewing the literature in the field of Lean Production enables the researcher to better understand the context of this research. The key contributions in Lean Production are summarised in Table 2.9. In this research, Lean Production is viewed as a management philosophy. In other words, to learn and implement Lean Production, it calls for the organisational wide change including changing the current organisational rules, policies, performance assessment criteria and procedures rather than simply implementing some lean practices at the shop-floor level. It implies that the organisation may need to abandon some outdated practices which have long been adopted by the managers and employees while learning and implementing lean practices. It is particularly important for lean implementation in SMEs. The quality and control systems adopted by many SMEs are poorer and more informal than LEs. In this sense, they need to give up certain existing practices while learning lean practices. Lean improvement projects in this research are the observable context of the consultant-client relationship. Hence, it is not within the confines of this research to comment on the success of these lean improvement projects.

Table 2.9 The summary of contributions in Lean Production

Year	Authors	Key findings
1990	Winston and Heiko	The <i>owner managers'</i> perspective of Lean Production is critical in SMEs.
1996 1997	Lee	The current production system in most SMEs is <i>poor and informal</i> . This may be a barrier for Lean implementation.
1998	Åhlström	Lean Production should be implemented in both sequential and parallel manners.
2003	Womack and Jones	There are <i>five principles</i> of Lean Production: value, value stream, flow, pull and perfection. The Lean leap is a long term process that consists of four main phases. The Lean leap is more than the application of some lean practices. It includes changes at both organisational level and shop floor level.
2004	Hines et al.	The concept of Lean Production itself is evolving. It can be understood at both <i>strategic and operational</i> levels.
2006	Rich et al.	Lean implementation covers changes at both the <i>shop floor and factory</i> levels.
2007	Holweg	The concept of Lean Production is the outcome of the developing and learning processes.
2006 2009	Bhasin and Burcher Bicheno and Holweg	Lean Production should be viewed as a <i>management philosophy</i> (i.e. a way of thinking).
2011	Hines et al.	<i>Invisible elements</i> , including strategy, leadership and employee engagement are the enablers for Lean implementation.
2011	Van Landeghem	<i>Teaching and educating</i> employees is the most important step for Lean Production to be implemented in SMEs.
2009 2012	Dowlatshahi and Taham Mazanai	Most SMEs do not have the knowledge of lean practices and thereby, it is more difficult for them to understand Lean.

Source: Developed by the researcher

2.5 Conclusion and relevance to the thesis

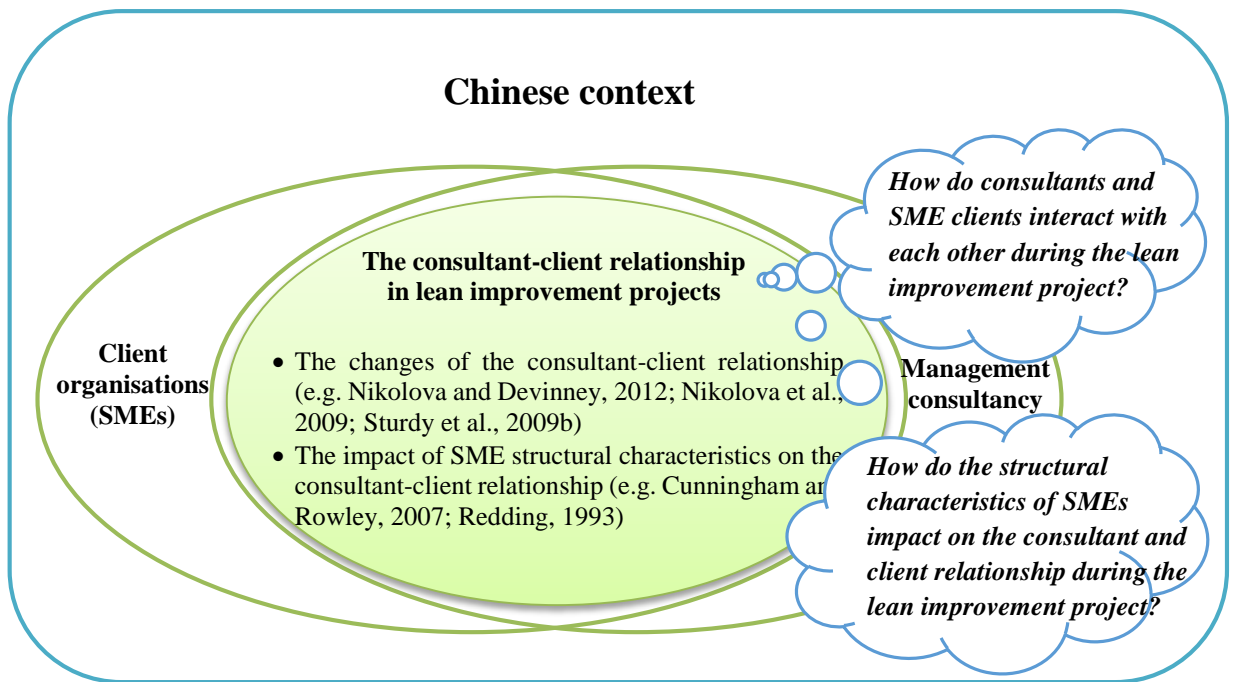
This chapter has reviewed the applied and contextual concepts in this research including management consultancy, Chinese SMEs and Lean Production. A review of these concepts facilitates the researcher to understand the context of this research and identify the potential research gaps. From the literature review, two research gaps can be identified:

- the changing nature of the consultant-client relationship throughout the consultancy projects needs to be examined from both the consultancy's and client organisation's perspectives to build on the previous different models that have been developed to explain the consultant-client relationship; and
- the impact of SME structural characteristics on the consultant-client relationship is under researched.

Two research questions are proposed in relation to these two research gaps (see figure 2.2), including:

- How do consultants and SME clients interact with each other during the lean improvement project?
- How do the structural characteristics of SMEs (particularly issues stemming from their smaller size) impact on the consultant and client relationship during the lean improvement project?

Figure 2.2 The preliminary research framework to study the consultant-client relationship in Chinese SMEs' lean improvement projects



Key: contextual boundary
 Source: Developed by the researcher

The literature review of Lean Production shows that some existing practices may need to be abandoned to enable the use of lean practices. Learning and implementing lean practices may need changes at both organisational level and shop floor level. To better understand how organisations learn new practices such as lean practices and abandon the existing practices and particularly, the roles of consultants in organisations' learning of new practices and abandonment of old practices, there is a need to employ relevant organisational theories. The next chapter reviews the theories underpinning this research, including organisational learning, institutional theory and contingency theory. The reasons for selecting these theories will also be presented at the beginning of the next chapter.

**CHAPTER 3 LITERATURE REVIEW
– PART TWO**

Chapter 3 Literature Review - Part Two

3.1 Chapter introduction

The applied and contextual concepts including management consultancy, Chinese SMEs and Lean Production were reviewed in Chapter 2. This chapter aims to review and analyse some organisational theories that will help explain the consultant-client relationship when implementing a lean improvement project. The reviewed literature in this chapter will be revisited and discussed based on the empirical data and analysis in the discussion chapter.

The theories employed in this research consist of organisational learning, institutional theory and contingency theory. The reasons for the selection of these theories are as follows:

- *Organisational learning*: organisations that attempt to change their old ways of operations and move to the new, improved operational performance through management consultancy projects are normally expected to adopt some new or at least different management practices such as lean practices. Hence, this implies that learning and transfer of the knowledge to support these management practices are central to management consultancy projects. The adoption of organisational learning can provide useful insights into the learning processes at different levels in the client organisations.
- *Institutional theory*: in addition to learning new practices, Lewin (1947) argues that the existing equilibrium in organisations may need to be unfrozen before they abandon the old ways of operation. Employing institutional theory enables the

researcher to explain the reasons for organisations to depart from their status quo and choose to adopt certain practices, such as lean practices. Moreover, it facilitates the exploration of the roles of consultants in the abandonment or deinstitutionalisation of their client organisations' existing practices.

- *Contingency theory*: management consultancy projects are not undertaken within a vacuum and thereby, it is worth considering the contextual factors that may impact on the consultant-client relationship which is central to management consultancy projects. This research investigates management consultancy projects within Chinese SMEs. Hence, organisational size becomes an important factor that the consultant-client relationship may be contingent upon along with the structural characteristics that are synonymous with SMEs.

These theoretical lenses enable the research area to be investigated and explored from multiple perspectives. In addition to the theories mentioned above, the researcher did consider other management and organisational theories, such as resource based view theory and network theory. However, both of these theories are excluded because this research does not focus on investigating the resources or skills needed by SMEs to successfully implement and sustain lean practices, or the relationships between SMEs (or management consultants) and the broad network that they are embedded in (e.g. the relationship between the SMEs and their suppliers, competitors and customers or the relationship between the consultants and other consultants and consulting companies). In other words, this research concentrates on the dynamic and diverse relationship between consultants and clients within management consultancy projects in SMEs. The following sections will provide a more detailed discussion of the employed theories and their relevance to the research area. The research gaps will be identified and summarised at the end of this chapter.

3.2 Organisational learning

Organisational learning is one of the most popular research topics in the field of business management (Dodgson, 1993; Bapuji and Crossan, 2004; Williams, 2001). Many researchers and practitioners emphasise the importance of organisational learning. For example, Stata (1989) labels organisational learning as the key to innovation and similarly, Smith et al. (1996) suggest that organisational learning can enable organisations to achieve competitive advantages. To better understand organisational learning, the following sections will discuss the definition, levels and the types of organisational learning.

3.2.1 The definition of organisational learning

The most fundamental question to organisational learning may be its definition. In other words, what does organisational learning mean? Unfortunately, there is no unified answer to this question. Different researchers have defined organisational learning from different perspectives. For example, Easterby-Smith and Araujo (1999) summarise that some view organisational learning as a technical process while others prefer to consider it as a social process. While it is problematic to provide a standard definition of organisational learning, some consensus among researchers can be found. First, many agree that organisational learning is a set of non-linear, complex and organisational wide processes (e.g. Cangelos and Dill, 1965; Fiol and Lyles, 1985; McGill and Slocum, 1993; Rashman et al., 2009; Williams, 2001). Argote and Miron-Spektor (2011) describe it as a process which occurs over time. Chiva et al. (2014) believe that organisational learning is the process through which the organisation's mental models, rules or knowledge can be changed or modified.

Second, organisational learning links to individual learning but it also significantly differs from individual learning. It relates to individual learning because individuals, such as managers and employees, in the organisation are the key actors and agents to organisational learning. Kim (1993) investigates the relationship between individual and organisational learning and points out that the organisation can learn through its employees. Similarly, Swart and Harcup (2012) explain the mechanism of translating individual learning (e.g. coaching senior managers such as executives) to organisational learning. However, organisational learning differs from individual learning because it cannot be viewed simply as a sum or magnification of individual learning (Antonacopoulou, 2006; Kim, 1993; Crossan et al., 1999; Vera et al., 2011). Fiol and Lyles (1985) argue that organisational learning is based on organisational understanding and interpretations of the environment. Stata (1989) highlights that shared insights and mental models are important to organisational learning and organisational memory building also relies on institutional mechanisms such as policies and strategies. Argyris and Schön (1996) agree that, to be organisational, learning should be embedded in the images of the organisation or in organisational maps, memory and programs (also known as “epistemological artefacts”). Hence, learning results should be possessed by the organisation rather than one or two individuals, and the organisation should ensure the accessibility of its knowledge and retain its memory without being influenced by the individual’s turnover (Argote, 2011).

Moreover, although some researchers merely highlight cognitive (e.g. Shrivastava, 1981) or behavioural (e.g. Swieringa and Wierdsma, 1992) changes of organisational learning, it is agreed that organisational learning encompasses both cognitive and

behavioural changes (e.g. Miller, 1996; Vera et al., 2011). For cognitive change, it links to the changes of knowledge base, understanding, insights and mental models, such as gaining better understanding (Fiol and Lyles, 1985), development of shared insights and mental models (Stata, 1989), acquiring and interpreting potentially useful knowledge (Huber, 1991), or, in a broader sense, changes of the way of thinking (Williams, 2001). Behavioural change, as argued by Tsang (1997), may include actual and observable behavioural changes, such as action improvement (Fiol and Lyles, 1985), or enhance the effectiveness of actions (Kim, 1993). Moreover, it may cover potential behavioural changes. According to Huber (1991), the range of potential behaviour change is an important part of organisational learning. Levitt and March (1988) posit that behaviour may be potentially changed based on the changes of organisational routines.

Finally, organisational learning is affected by some environment and organisational contextual factors. As argued by Wang and Ahmed (2003), organisational learning includes the interactions between the organisation and its context. Contextual factors, such as organisational culture (e.g. Argyris and Schön 1978; Pfeffer, 1981); organisational structure (e.g. Starbuck et al., 1978; Morgan, 2006; Bunderson and Boumgarden 2010); organisational strategy (e.g. Daft and Weick, 1984); power differences; (e.g. Contu and Willmott 2003) and, changes and uncertainties from the external environment (e.g. Hedberg, 1981; Lawrence and Dyer, 1983) that are frequently discussed by researchers. Argote and Miron-Spektor (2011) point out that the context can be viewed as a contingency that influences learning processes.

3.2.2 Levels and processes of organisational learning

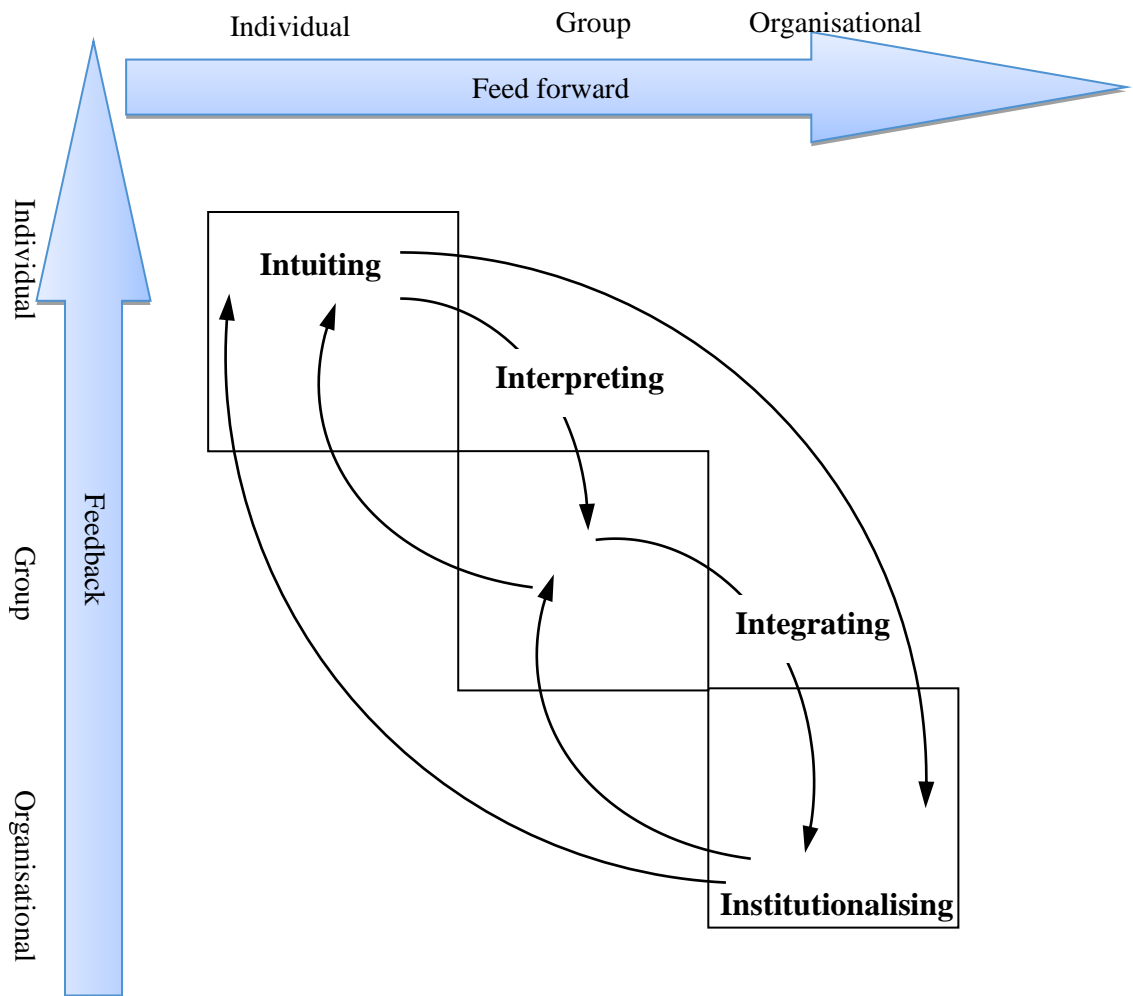
To explain the levels or processes of organisational learning, a number of frameworks and models have been developed. Table 3.1 summarises some examples of these studies. As discussed in section 3.2.1, organisational learning differs from individual learning, although individuals are the key actors of organisational learning. This implies that organisational learning is a process which is composed of different levels. Antonacopoulou (2006) and Kim (1993) highlight organisational learning at individual and organisational levels. Shrivastava (1983) affirms that organisational learning encompasses several levels such as individual, department, plant, corporate levels. Crossan et al. (1999) summarise that organisational learning typically occurs at individual, group and organisational levels (see figure 3.1).

Table 3.1 Examples of the processes of organisational learning

Year	Authors	Perspectives
1984	Daft and Weick	Learning processes within the organisation consist of <i>scanning, interpretation</i> and <i>learning</i> .
1991	Huber	Organisational learning associate with four main constructs and processes: knowledge <i>acquisition</i> , information <i>distribution</i> , information <i>interpretation</i> and <i>organisational memory</i> .
1995	Nevis et al.	Organisational learning possesses three stages: knowledge <i>acquisition</i> , knowledge <i>sharing</i> and knowledge <i>utilisation</i> .
1999	Crossan et al.	The three levels of organisational learning (i.e. <i>individual, group</i> and <i>organisational</i>) link with 4I learning processes (<i>intuiting, interpreting, integrating</i> and <i>institutionalising</i>).
2001	Williams	The important elements in the processes of organisational learning include organisation mission and strategy, organisational culture, belief system, management decision making process and past experience.
2002	Zietsma et al.	Organisational learning occurs at <i>individual, group</i> and <i>organisational levels</i> . It is composed of six processes: <i>intuiting/attending, interpreting/experimenting, integrating</i> and <i>institutionalising</i> .
2004	Holmqvist	The dynamics of <i>exploration</i> and <i>exploitation</i> in the organisational learning processes is the fundamental characteristic of modern organisations.
2005	Dyck et al.	Organisational learning includes five intertwined processes: <i>socialization</i> (amplifying tacit knowledge), <i>externalisation</i> (transforming tacit knowledge into explicit knowledge), <i>combination</i> (amplifying explicit knowledge), <i>internalisation</i> (transforming explicit knowledge into tacit knowledge) and <i>tacit error correction</i> (dually emphasising externalization and internalization).
2006	Ron et al.	Organisational learning consists of <i>cognitive, emotional</i> and <i>social</i> processes. It is supported by certain mechanisms that diffuse the lessons-learned across the whole organisation.
2008	Chua and Pan	Organisational learning covers knowledge <i>acquisition</i> , information <i>interpretation</i> and <i>assimilation</i> , and <i>organisational memory</i> .
2011	Argote	Organisational learning encompasses three processes: <i>knowledge creating, knowledge retaining</i> and <i>knowledge transferring</i> .
2012	Swart and Harcup	Learning at individual level can be translated to collective level through <i>enacting</i> new behaviours, <i>enacting</i> the coaching approach and <i>embedding</i> collective learning.

Source: Developed by the researcher

Figure 3.1 An organisational learning framework



Source: Crossan et al. (1999:532)

At the individual level, individuals may learn consciously or subconsciously. Kim (1993) points out individuals can assess their experience consciously, and then design and implement the concepts developed from their assessment. They can also recognise patterns subconsciously based on their past experience (Crossan et al., 1999). For example, sometimes, the expert may directly know what he or she should do when facing problems without consciously reasoning or analysing the proper actions (Sinclair and Ashkanasy, 2005). Based on their developed cognitive maps, individuals explain their ideas and insights to others by the use of different languages (Crossan et

al., 1999). Zietsma et al. (2002) add that individuals can also actively seek new information from their external environment.

Wilson et al. (2007) argue that learning at a group level does not equal to an aggregation of individual learning. It includes the development of consensus or shared understanding, knowledge, and experience among different group members (Crossan et al., 1999; Ellis et al., 2003; López et al. 2005; Wilson et al., 2007). Crossan et al. (1999) indicate that the development of refined and common language plays a key role in developing shared understanding among group members. In addition, it contains changes of actions among group members (Edmondson, 2002). Similarly, Dyck et al. (2005) suggest that organisational members are able to transform their tacit knowledge (i.e. difficult-to-articulate and experiential knowledge) to explicit knowledge (i.e. codified knowledge that is easily transferrable) through dialogue (also known as externalisation). Based on shared understanding and mutual adjustments, coordinated actions at group level can be developed (Crossan et al., 1999).

As discussed in section 3.2.1, learning at organisational level differs from other levels because it relates to building organisational memory (Argyris and Schon, 1996). Concepts such as institutionalising (Crossan et al., 1999; Vera et al., 2011; Zietsma et al., 2002), and information or knowledge retaining and retrieving (Huber, 1991) are employed frequently to describe this process. As argued by Crossan et al. (1999), some learning results can be embedded in organisational structures, routines, procedures and practices. Dyck et al. (2005) agree that the explicit knowledge created from

externalisation process should be integrated with the existing explicit knowledge in the organisation by coordinating organisational members and documenting procedures.

However, organisational learning is not a static process. López et al. (2005) believe that organisational learning results should be diffused across organisational members. Dyck et al. (2005) agree that the new explicit knowledge should be experiment across the organisation. Crossan et al. (1999) summarise that while the institutionalised learning results, such as new practices and procedures, can flow from the organisational level back to the group and individual levels (i.e. feedback), new ideas and actions from individual level or group level can also be integrated and institutionalised into organisational level (i.e. feed forward). In other words, organisations can exploit existing procedures and practices to influence how their members behave and think, but meanwhile, they can also explore innovative ways of managing their business by experimenting and trialling (Holmqvist, 2004).

In addition to the organisation's learning of new practices, it is argued by some researchers (e.g. Argyris and Schön, 1978; McGill and Slocum, 1993; Starbuck, 1996; Turc and Baumard, 2007; also see Lewin, 1947) that organisational members, such as managers and employees, should be able to unlearn. McGill and Slocum (1993) argue that some practices and activities, which are developed in the conventional environment and promoted by the organisation, may be useless and ineffective in the current environment. Tsang and Zahra (2008) argue that, in some cases, organisations should abandon or give up some old or outdated routines and practices. They further explain that organisational unlearning requires the organisation to remove its existing

routines and practices from organisational memory (Tsang and Zahra, 2008). The organisation's abandonment (i.e. unfreezing) of its existing practices will be discussed in section 3.3.2.

3.2.3 Organisational learning and management consultancy

Organisations can learn from different sources, such as organisational members, suppliers, customers, business partners, competitors and management consultants (which is the main focus of this research) (Jones and Macpherson, 2006; Easterby-Smith et al., 2008). According to Kakabadse et al. (2006), learning is central to management consultancy projects. Steele (1975) describes learning as the “essence” of consulting process. Kubr (2002) claims that learning is the most valuable work of management consultancy, and consultants should enable their clients to learn from their own and others' experience. Walker and Massey (1999) indicate that knowledge and skill transfer plays an important role in consultancy projects. Many managers decide to hire consultants because they need to acquire some special knowledge from consultants. A number of researchers (e.g. Champion et al., 1990; Kubr, 2002; Lashkarbolouki et al., 2011) describe the consultant as a trainer, educator and coach, who teaches clients new skills and ideas. This implies that consultants are expected to bring some new knowledge to their client organisations.

While transferring or transforming the new knowledge can provide many benefits to the client organisation, such as fresh ideas and new objectives, it may also cause some issues. Gammelsaeter (2002) highlights that consultants and managers possess a

different knowledge base because the consultants' knowledge is embedded in the external context and the managers' knowledge is more specific and organisational based. This is also labelled as the "burden of otherness" by Kipping and Armbrüster (2002). According to Kipping and Armbrüster (2002), there are three "burdens of otherness". The first links to the public image of consultants. As the public image of consultants always describes consultants as the knowledge suppliers or donors to the client organisations, it may be more difficult for consultants to gain access to the client employees to collect contextual information (Kipping and Armbrüster, 2002). The second relates to the knowledge transfer and transformation in the client organisations. While certain management tools and methods can facilitate the consultants to transform and explicate tacit knowledge in the client organisations (e.g. Werr et al., 1997), the consultants' lack of knowledge about the details of daily operations in the client organisations may inhibit their advices to be implemented (Kipping and Armbrüster, 2002). The third burden of otherness associates with the consultants' activity system. Consultants play a key role in influencing organisational change and they prefer to promote change-oriented activities in the organisation (Caldwell, 2003). Consultants' unfamiliarity with the operations in the client organisations may increase the client employees' reluctance to change (Kipping and Armbrüster, 2002).

However, Sturdy (2011) points out that the boundary between management and consultancy is moving (e.g. consultancy as management, and management as consultancy). For example, many experienced managers are employed by consulting companies and the consultants' involvement in implementation is increasing. In this sense, it suggests that, to some extent, consultants and clients share some types of knowledge (e.g. sector or functional knowledge) and this knowledge sharing may

soften the “burdens of otherness” (Sturdy et al., 2009a,b). In addition to the “consultant as the new knowledge suppliers” perspective, it is argued the consultant can also be viewed as a “legitimiser” who helps decision makers (normally senior managers) justify their decisions without diagnosing or challenging the underlying assumptions of their decisions (Bouwmeester and van Werven, 2011). In other words, consultants legitimise the existing ideas rather than helping clients learn new knowledge. Given the complexity of the consultant-client relationship, Sturdy et al. (2009a) suggest that these two perspectives (i.e. consultants as new knowledge suppliers and consultants as legitimisers) should complement each other.

“While most studies of consultancy make claims and/or exhibit assumptions about knowledge transfer or, more accurately, translation or flow, there has been very little research which has focused directly on this” (Sturdy et al., 2009a:629). For example, Schein (1997) proposes that consultants should be helpers who assist clients to learn how to gather data, diagnose problems, and find the consequences of problems and solutions rather than simply being a problem-solver. Similarly, Antal and Krebsbach-Gnath (2001) provide an in-depth insight into how consultants facilitate or impede organisational learning processes, and indicate that the marginality of the consultant’s role can benefit the learning processes in the client organisation. Nevertheless, Antal and Krebsbach-Gnath’s (2001) discussion does not explicitly links consultants with different levels of organisational learning. Fosstenl kken et al. (2003) examine the knowledge development processes between professionals such as consultants and their clients, and they argue that professionals and clients can learn from each other and co-develop their knowledge base through the interactions in the consultancy projects.

However, their analysis focuses on how professionals (e.g. consultants) can learn. It is unclear about how learning occurs in the client organisations.

Dawes et al. (2007) posit that the participation of the external consultant positively relates to organisational learning and therefore, they suggest organisations should consider hiring consultants (Dawes et al., 2007). In their study, it seems that the consultant-client relationship is fixed because the consultants are purely external advisors to the client organisation and thus, the diversity and dynamic of the consultant-client relationship is somewhat neglected. Moreover, it lacks an explicit explanation of “how” consultants may contribute to organisational learning.

Another study that explains learning in management consultancy projects is conducted by Handley et al. (2007). By arguing that learning means the development of one’s identity and practice through different forms of participation in communities of practices, Handley et al. (2007) point out that consultants, such as junior consultants, can develop their identities and practices by participating in consultant-client meetings and discussions, and sometimes the consultants’ self-identity can prevent them from coping with requests from clients. However, Handley et al.’s (2007) study mainly focuses on individual learning and, particularly, the consultant’s learning. Hence, how organisational learning occurs in the client organisations and the roles of consultants in organisational learning are still under researched.

3.2.4 Types of learning

To understand organisational learning in a more structured way, different typologies of organisational learning have been proposed and discussed by researchers (e.g. Argyris, 1976; Shrivastava, 1983; Fiol and Lyles, 1985; Senge, 1990; McGill and Slocum, 1993; Argyris and Schön, 1996; Miner and Mezias, 1996; Williams, 2001). Among all of these typologies, the most classic and prominent is single-loop and double-loop learning (also named as “lower level” and “higher level” learning in Fiol and Lyles’ (1985) study).

According to Argyris and Schön (1996), organisations or individuals have their “theories of actions”, which include their governing values, action strategies and their underlying assumptions. They further point out that there are two types of “theories of actions”, which are: “espoused theory” and “theory-in-use” (Argyris and Schön, 1996). “Espoused theory” is a theory in which individuals believe and espouse, and “theory-in-use” is employed by individuals to carry out their actions (Argyris, 1995). Single-loop learning refers to changes of action strategies or the underlying assumptions without changes of values while double-loop learning requires changes of action strategies and underlying assumptions, as well as values that govern the individual or organisation’s theory-in-use (Argyris and Schön, 1996). Argyris (2004) argues that single-loop learning is one-dimensional by detecting and correcting the problems in the current system, but double-loop learning also questions its underlying reasons and motives. Single-loop and double-loop learning differ from each other significantly, but this does not necessarily mean that they should completely compete with each other. Single-loop and double-loop learning may exist at the same time in different

levels and actually, double-loop learning can facilitate single-loop learning (Argyris, 1977).

However, Pedler et al. (1997) argue that in practice, double-loop learning is rarely found and many organisations are unable to achieve it. Several inhibitors of double-loop learning are discussed. For example, there is a gap between people's espoused theories and theory-in-use. In other words, the inconsistency exists between what people believe they do and what they actually do. Unfortunately, many managers and employees are unaware of this issue. In this case, as argued by Argyris (1977), it is insufficient for members in the organisation (such as senior managers) to simply change their behaviours without recognising and changing the values that govern their theory-in-use because the same problem may reoccur. Additionally, members in the organisation may play some kinds of "games" to make sure that others are not upset (Argyris, 1977). In this sense, the information or feedback that they provide to each other is incomplete and selective and, as a result, the validity of this information is limited (Argyris, 1977).

Other factors related to organisational structure and routines are also considered as the barriers of double-loop learning. Defensive routine which prevents individuals from being threatened or embarrassed inhibits double-loop learning by covering up the truth (e.g. the underlying reasons and motives) of the problems (Argyris, 1994). Argyris (1991) points out that it is not unusual for professionals, such as management consultants, to adopt defensive reasoning during their work. Because many professionals have normally gained success in education and have rarely experienced

failure and embarrassment, they reason defensively to protect themselves from being questioned and embarrassed (Argyris, 1991). The defensive routine also links to the reward and punishment system in the organisation (Morgan, 2006). If the organisation simply rewards the success but punishes the failure, members in the organisation are more likely to make the problem or the situation look better than it actually is (Argyris, 1994; Morgan, 2006). A bureaucratic organisational structure also inhibits double-loop learning because information and knowledge cannot flow freely among different sectors or divisions and thereby, these sectors or divisions are more likely to consider their own goals and conditions rather than the organisational goals (Morgan, 2006).

According to Doty and Glick (1994), a typology can be viewed as the key means to organise and understand complex theories. For organisational learning, which is interpreted differently by researchers, a review of the typologies, such as single-loop and double-loop learning, enables other researchers and practitioners to understand the essence of learning in a clearer way. Additionally, typologies can be employed as an assessment tool for the organisation or individual to detect the gaps between their current learning status (e.g. single-loop or double-loop learning) and the ideal learning status.

3.2.5 Summary – organisational learning and management consultancy

Organisational learning plays a key role in the field of business management. It enables the researcher to understand and explain how learning occurs within or

between organisations. Table 3.2 provides a summary of the key contributions in organisational learning.

Table 3.2 A summary of the key contributions in organisational learning

Year	Authors	Key findings
1976, 1977, 1991, 1995	Argyris	<i>Single-loop learning</i> mainly focuses on improving or better adopting current policies but <i>double-loop learning</i> enables the organisation to fundamentally question the reasons and motivations of current policies and objectives. Professionals, such as management consultants, are less likely to adopt double-loop learning.
1991	Huber	Knowledge <i>acquisition</i> , information <i>distribution</i> , information <i>interpretation</i> , and organisational <i>memory</i> constitute the main processes of organisational learning.
1993	Kim	Organisations learn through their members but organisational learning is <i>not simply the sum of individual learning</i> .
1996	Argyris and Schön	<i>Organisational level</i> of learning means that learning results should be embedded into <i>organisational maps, memory and programs</i> .
1999	Crossan et al.	Organisational learning occurs at <i>three levels</i> including individual, group and organisational level. The process that distinguishes organisational level of learning from group or individual level of learning is institutionalising.
2002	Gammelsaeter; Kipping and Armbrüster	The consultant's knowledge base differs from that of the members of the client organisation and this may cause <i>burdens of otherness</i> during organisational learning.
2003	Fosstenlökken et al.	Consultants and their clients can <i>co-develop</i> their knowledge base during the consultancy projects.
2006	Morgan	Organisational <i>bureaucratic structure, and reward and punishment system</i> can affect double-loop learning.
2008	Tsang and Zahra	Organisations should be able to <i>abandon</i> their old and outdated routines and practices.
2009a,b; 2011	Sturdy et al.; Sturdy	The <i>sector knowledge</i> possessed by both consultants and clients can soften the burden of otherness.

Source: Developed by the researcher

Although individuals, such as employees and managers, are crucial to organisational learning, organisational learning is not equal to the sum of individual learning. Organisational learning can occur at different levels, including individual, group or team and organisational levels. The main process which differs organisational learning from individual or group learning is institutionalising the learning results and building organisational memory. In this case, learning results, such as improvements of current actions, can be retained by organisations and become impersonal.

Single-loop learning and double-loop learning are two classic types of organisational learning. Single-loop learning enables organisations to achieve their current goals while double-loop learning further questions the reasons and motivations of these goals. However, it is argued that double-loop learning is difficult to achieve in practice.

For organisations that expect to improve their status quo, or perhaps solve some problems in their current operations systems with the support from management consultants, learning and transferring new knowledge play an important role. Given the diversity and dynamic of the consultant-client relationship, it is important to further investigate the roles of consultants in organisational learning. The next section will discuss institutional theory and its contribution to this research.

3.3 Institutional theory

Institutional theory plays a dominant role in organisational theories. It has been widely employed by researchers to analyse the relationships between organisations and their environment (particularly their conformity to the external environment) (Lawrence and Suddaby, 2006; Meyer, 2008; Oliver, 1991; Scott, 1987; Scott, 2004). Institutional theorists claim that the institutional environment which reflects the external pressures of organisations, such as laws, regulations and professionalism, has a great impact on organisations (Meyer and Rowan, 1977; Zucker, 1987). Jepperson (1991) defines an institution as

“a social order (i.e. standardised interaction sequences) that has attained a certain state or property” (Jepperson, 1991:145).

Similarly, Barley and Tolbert (1997) believe that institutions are:

“shared rules and typifications that identify categories of social actors and their appropriate activities or relationships” (Barley and Tolbert, 1997:96).

Hence, as summarised by Jepperson (1991:149), an institution is the *socially constructed and reproduced* programme. Scott (2014) adds that there are three institutional pillars, including regulative, normative and cultural-cognitive pillars (see table 3.3). The regulative pillar highlights that institutions can constrain and regularise actors' behaviours by setting up rules and rewards and punishment systems. The normative pillar concerns the values (i.e. conceptions of the preferred behaviours and their standards) and norms (i.e. the way to achieve these standards). The cultural-cognitive pillar emphasises the importance of developing or adopting shared understanding and frame to legitimise certain behaviours. Scott (2014:56) argues that

“institutions comprise regulative, normative and cultural-cognitive elements that, together with associated activities and resources, provide stability and meaning to social life.”

Table 3.3 Three pillars of institutions

	Regulative	Normative	Cultural-Cognitive
Basis of compliance	Expedience	Social obligation	Taken for granted Shared understanding
Basis of order	Regulative rules	Binding expectations	Constitutive schema
Mechanisms	Coercive	Normative	Mimetic
Logic	Instrumentality	Appropriateness	Orthodoxy
Indicators	Rules, laws, sanctions	Certification, accreditation	Common beliefs, shared logics of action, isomorphism
Affect	Fear Guilt/ Innocence	Shame/ Honour	Certainty/ Confusion
Basis of legitimacy	Legally sanctioned	Morally governed	Comprehensible, Recognisable, Culturally supported

Source: Scott (2014:60)

Institutional theorists suggest that organisations are driven to adopt the practices stated by the prevailing concepts of organisational work to enhance their legitimacy and survival, rather than immediate efficiency (Ashworth et al., 2009; DiMaggio and Powell, 1983). In this case, while other organisational theories, such as contingency theory, highlight the heterogeneous or difference among organisations, researchers in the field of institutional theory attempt to explain the homogeneity (DiMaggio and Powell, 1983; Zucker, 1977) or the similarities (i.e. isomorphism) among organisations.

3.3.1 Institutional isomorphism

Isomorphism stands for the processes of homogenisation (Hawley, 1968). DiMaggio and Powell (1983) categorise two types of isomorphism: competitive (e.g. Hannan and Freeman, 1977) and institutional. While competitive isomorphism stresses market competition and fitness of measures, DiMaggio and Powell (1983) point out that it is insufficient to explain the observed phenomena and behaviours of organisations. To understand isomorphism more comprehensively, they suggest an institutional point of view (e.g. Kanter, 1972). According to DiMaggio and Powell (1983), there are three mechanisms of institutional isomorphism: coercive, mimetic and normative.

Coercive isomorphism relates to the regulative element of the institutional environment (Scott, 2014). It is based on pressures (both informal and formal) from other organisations which the organisation highly depends on, and also from social culture expectations (DiMaggio and Powell, 1983). In this case, politically based pressure can be perceived as a kind of force or persuasion to drive isomorphism (DiMaggio and Powell, 1983). For example, legal requirements from the government may require organisations to perform in a similar way and organisations may be forced to adopt a new practice to satisfy the requirements of new governmental regulations. Some big organisations may promote their methods and philosophies to other smaller organisations.

Mimetic isomorphism reflects on the cultural-cognitive element of the institutional environment (Scott, 2014). The sources of mimetic isomorphism may come from

environment uncertainty, including poorly understood technology, unclear goals and symbolic uncertainty of the environment (DiMaggio and Powell, 1983). To respond to the uncertainty, organisations may imitate the practices of other organisations that are perceived as successful (Oliver, 1991). DiMaggio and Powell (1983) name this imitation processes as modelling. For example, many American organisations model Japanese practices (e.g. lean practices) to overcome their problems (e.g. Womack et al., 1990; Womack and Jones, 1996). Organisations such as management consulting companies can facilitate the diffusion of good practices or models of other organisations (Scarbrough, 2003). It is suggested that organisations, such as SMEs, that are uncertain about their further development may model themselves on other organisations and imitate good practices, such as lean practices, from other organisations with the advice of consulting companies.

Normative isomorphism links tightly to professionalization which enables members of these organisations to identify their methods of working and govern the production of procedures (Larson, 1977). Professionalization is primarily driven by two vehicles. One is universities and some professional training organisations, which contribute to the development of organisational norms. The other is professional or trade associations, which define and promote normative rules of professional behaviours (DiMaggio and Powell, 1983). The underlying mechanism for normative isomorphism is named as “the filtering of personnel”, which potentially guides organisations to select and recruit their members from similar institutions (DiMaggio and Powell, 1983:152).

It is worth noting that the above three mechanisms should not be treated separately (Sutton et al., 1994). In Sutton et al.'s (1994) study, they demonstrate that the organisation's adoption of certain practices can be driven by both coercive (e.g. rules and regulations issued by the government) and normative (e.g. employment-relations professions) mechanisms. From an institutional perspective, none of these mechanisms of isomorphism can guarantee the internal efficiency of organisations (e.g. gaining more profits) (Tolbot and Zucker, 1999). However, organisations are rewarded by being similar to other organisations, including enhancing legitimacy and building reputation in their fields (DiMaggio and Powell, 1983; Meyer, 2008).

3.3.2 Deinstitutionalisation

Barley and Tolbert (1997) propose that instead of conforming to and adopting the institutionalised practices, sometimes, organisations challenge and eliminate these established and institutionalised practices. Similarly, unfreezing the existing equilibrium in the organisation to discard the old behaviours is an important step in the Lewin's (1947) three-step model. The process of challenging and eroding the legitimacy and historical continuity of established and institutionalised practices is defined as deinstitutionalisation (Oliver, 1992). Greenwood et al. (2002) recognise the importance of deinstitutionalisation by adding it to their institutional change model. It is argued that isomorphic convergence which means moving from one status to another may come from a non-isomorphic change (Greenwood et al., 2002). Similarly, Scott (2008) stresses that, although the concept of an institution entails stability, it does not mean the institution cannot be changed. In other words, the increasing similarity between organisations may come from deinstitutionalising a practice and

re-institutionalising another practice. Hence, during deinstitutionalisation, the existing taken-for-granted practice loses its absolute and invincible, validity and legitimacy and action (which means challenging, departing from and abandoning this practice) will occur. In this case, Lawrence and Suddaby (2006) argue that many disruptive institutional work has concentrated on disconnecting the adoption of the existing practices with rewards or sanctions. Gray et al. (2005) explain that, cognitively, deinstitutionalisation allows different cognitive interpretations to challenge and break down the existing and culturally accepted, practice and normatively, which includes replacing the destructive norms with other beneficial actions and behaviours, and which additionally, involves a more relaxed regulative environment that enhances the possibility to change the existing practice.

To understand why deinstitutionalisation occurs, some researchers have investigated its causes including changes of regulations, technologies and social systems (e.g. Bostian, 1973; Zucker, 1986; Mechanic and Rochefort, 1990; Powell, 1991; Frank and Kamlet, 1996; Fox-Wolfgram et al., 1998; López-Maya, 2002; Gray et al., 2005; Delacour and Leca, 2011). Scott (2008) suggests that institutionalised systems may need to be changed for both external (e.g. political, economic or social) and internal (e.g. poor organisational performance) reasons. Similarly, Tolbert and Zucker (1999) argue that, to deinstitutionalise certain practices that has been widely diffused in the organisation, the organisation's environment needs a major shift. Oliver (1992) summarises three general types of pressures that lead organisations to deinstitutionalisation their existing practices (see table 3.4), which are:

- political pressure (i.e. deinstitutionalisation due to changes of power distributions within or among organisations, or due to the protective actions taken by organisations, such as protecting organisations against being threatened);
- technical and functional (also labelled as rational by Smark and Deo, 2006) pressure (i.e. deinstitutionalisation due to the challenges of the instrumental value of existing practices, such as withdrawing rewards for conformity, increasing the clarity and specification of technologies and goals, increasing the requirement for efficiency and confronting dissonant events); and,
- social pressure (i.e. deinstitutionalisation due to the loss of shared recognition of existing practices or intentions to sustain it, such as a highly diverse of workforce, high turnover rate and changes in social expectations).

Table 3.4 Antecedents of deinstitutionalisation

Level of analysis	Political pressures	Functional pressures	Social pressures
Organisation	Mounting performance crisis	Changing economic utility	Increasing social fragmentation
Environment	Conflicting internal interests	Increasing technical specificity	Decreasing historical continuity
	Increasing innovation pressures	Increasing competition for resources	Changing institutional rules and values
	Changing external dependencies	Emerging events and data	Increasing structural disaggregation

Source: Oliver (1992:567)

Previous researchers (e.g. Dacin and Dacin, 2008; Karam and Jamali, 2013; Seo and Greed, 2002) have noted that it can be very difficult for organisations to abandon their existing practices, even though the senior managers have already realised the importance of changing their status quo. Olive (1992) emphasises that organisations may be resistant to changing their status quo (i.e. organisational inertia) because they lack internal expertise or attempt to reduce uncertainty. This implies that organisations may need support from outsiders (such as consultants) to overcome organisational inertia. Most recently, Nicholson and Sahay (2009) develop a theoretical model to explain the sources of deinstitutionalisation with an emphasis on political and cultural analysis. In their study, management consultants are recognised as the important outside driver that can trigger deinstitutionalisation.

Maguire and Hardy (2009) argue that, while many institutional theorists focus on investigating the organisation's adoption of new practices, the organisation's deinstitutionalisation of their old and outdated practices (particularly in the context of being driven by the outsiders) is inadequately researched. By studying the case of organisations' abandonment of the use of DDT (i.e. an agricultural insecticide), they highlight that outsiders (such as professionals) can produce texts to problematize the existing practices. To better persuade their audience to abandon the existing practices, rhetorical strategies are frequently used by the outsiders (Maguire and Hardy, 2009). Although Maguire and Hardy's (2009) study provides a useful insight into the outsider-driven deinstitutionalisation in general, the role of consultants in deinstitutionalising organisations' existing practices is not explicitly discussed and little is known about how the consultants may facilitate their client organisations to abandon some old and long-existing practices.

The ideas of institutionalisation and deinstitutionalisation link to organisational learning and unlearning (also see Lewin's (1947) three-step model). As documented in section 3.2.3, while many organisations attempt to learn new knowledge based on their experience or other's experience, some current practices which are old and outdated should be abandoned and discarded (Argyris and Schön, 1978; McGill and Slocum, 1993).

3.3.3 Summary – institutional theory and management consultancy

Institutional theory explains the great similarities among organisations and highlights the organisation's conformity to its external environment such as laws and regulations. Table 3.5 summarises some key findings in institutional theory. It is suggested by institutional theory that organisations are driven to adopt a certain practices to enhance their legitimacy in the field that they are currently operating. Organisations can become more isomorphic to each other by adopting these practices. In addition to adopting new practices, institutional theory also argues that organisations and their members do not solely conform to the established and institutionalised practices but they sometimes abandon and challenge these practices when they are under political, technical or social pressure.

Table 3.5 A summary of key findings in institutional theory

Year	Authors	Key findings
1977	Meyer and Rowan	Organisations are forced to adopt the institutionalised practices to gain <i>legitimacy</i> rather than internal efficiency.
1983	DiMaggio and Powell	Coercive, mimetic, and normative are three mechanisms for <i>institutional isomorphism</i> .
1992	Oliver	Organisations sometimes challenge and discard the established and institutionalised practices rather than solely conforming to them. <i>Political, functional and social pressure</i> can lead to deinstitutionalisation.
1994	Sutton et al.	The organisation's adoption of certain practices can be driven by more than one isomorphic mechanism.
1997	Barley and Tolbert	Organisations do not solely adopt institutionalised practices. They can <i>challenge and eliminate</i> these institutionalised practices.
1999	Tolbert and Zucker	Deinstitutionalisation requires <i>a major change</i> in the environment.
2002	Greenwood et al.	<i>A non-isomorphic change</i> is an important process in the institutional change model.
2003	Scarbrough	<i>Consulting</i> companies can contribute to institutional isomorphism by <i>diffusing</i> certain practices.
2005	Gray et al.	Deinstitutionalisation can be explained from cognitive, normative and regulative perspectives.
2008	Scott	Institutions entails stability, but they may need to be changed for both <i>internal and external</i> reasons.
2009	Maguire and Hardy	Outsiders can produce and distribute texts to <i>problematize</i> the existing practices.
2013	Karam and Jamali	<i>Deinstitutionalisation</i> of the existing practices can be difficult for organisations even though senior managers have recognised the need to change their status quo.
2014	Scott	Institutions are supported by three pillars, namely, <i>regulative, normative and cultural-cognitive pillars</i> .

Source: Developed by the researcher

Many SMEs have been described as adopters of traditional management practices and lack advanced management tools and practices (Lee, 1996). According to Emiliani (1998), the natural way to organise production is mass production and lean practices are different from, or even incompatible with, these traditional management methods and the wastes identified by lean thinkers cannot be detected by the organisational members unless they are trained. This suggests that to support lean projects, management consultants may need to help their client organisations deinstitutionalise, or at least challenge some traditional management practices that have long been established in the SMEs. Since the nature of the consultant-client relationship is diverse and dynamic, this research will deepen the understanding of the process of deinstitutionalisation by considering the roles of different consultant-client relationships. The next section reviews the literature of contingency theory, which provides a different perspective to analyse organisations and their environment by highlighting the fitness of organisations to their context.

3.4 Contingency theory

Contingency theory is another prevailing approach to develop management thinking (Koontz, 1980; Tosi and Slocum, 1984). It challenges universalistic theories, such as classic management theories, which assert that there is “one best way” to organise and operate a business by highlighting that there is “no one fits all” approach (Donaldson, 1996). Contingency theory argues that organisational performance or effectiveness comes from deploying the appropriate level of organisational characteristic variable that fits the contingency (Donaldson, 1996). The term “contingency” in this theory refers to the variable that moderates the effect of the organisational characteristic, such as organisational structure, on organisational performance (Donaldson, 2001). The most frequently addressed contingencies are environment, task, technology and size (e.g. Burns and Stalker, 1961; Child, 1975; Lawrence and Lorsch, 1967). From the contingent point of view, if the organisational characteristic misfits the level of its contingency, then the organisational performance can be negatively affected and, in this case, the decision makers should adjust their organisational characteristic to regain fitness (Donaldson, 1987).

According to Donaldson (2001), contingency theory is dominated by a structural contingency tradition that focuses on researching the relationship between organisational structure, organisational performance and the contingency. Structural contingency theory relies on organic and bureaucracy theories. In organic theory, Burns and Stalker (1961) establish a continuum of organisational structure with two extremes of mechanistic and organic structures. Mechanistic structure is always described as a top-down structure with a high level of centralisation, specialisation and

formalisation (Burns and Stalker, 1961). In other words, managers attempt to directly and tightly control employees by assigning detailed tasks and enacting a set of rules and policies. Conversely, an organic structure is a decentralised structure with a lower level of formalisation and specialisation (Pennings, 1992). In this sense, an organic structure relies on the employees' capabilities rather than management control (Burns and Stalker, 1961).

Organic theory is linked tightly to the contingency of task uncertainty. When the level of task uncertainty changes from low to high, the organisation should shift the organisational structure from mechanistic to organic to encourage their employees to participate in decision making processes to achieve innovation and effectiveness (e.g. Burns and Stalker, 1961). In addition to task uncertainty, some researchers (e.g. Perrow, 1967; Thompson, 1967; Woodward, 1965) argue that technology is an important contingency that can affect organisational (mechanistic or organic) structure. For example, based on an investigation into one hundred organisations in different industries, Woodward (1965) proposes the perspective of technological imperative. It is suggested that primitive technology, such as small batch production, requires an informal and organic organisational structure whereas a more advanced technology, such as mass production, requires a more mechanistic structure (Woodward, 1965). When the technology is advanced and becomes more automated, such as process production, the organisational structure should become organic again (Woodward, 1965).

Bureaucracy theory, however, provides a different perspective of organisational structure. From a bureaucratic point of view, a high level of centralisation does not necessarily mean that there is a high level of specialisation, standardisation, and formalisation. It argues that a simple organisational structure can be highly centralised with a low level of specialisation and formalisation. On the contrary, a bureaucratic structure can be highly decentralised with a high level of specialisation, standardisation, and formalisation (Blau and Schoenherr, 1971; Weber, 1968). Hence, in a simple structure, managers seek to directly control employees based on their decisions rather than on formal and documented rules. The simple structure links tightly to traditional Chinese culture that possesses a “command and control” characteristic (see Chapter 2, section 2.3.3). According to Redding (1993), Chinese SMEs are paternalistic. The owners or senior managers (rather than younger or less experienced middle managers) are more likely to directly make decisions. In a bureaucratic structure, senior managers delegate other middle managers to make decisions and the repetitive decisions can be rationalised, standardised and documented (Child, 1973). Bureaucracy theory is frequently related to the contingency of organisational size.

Contingency variables such as technology, environment, task and size are discussed frequently in the literature (e.g. Burns and Stalker, 1961; Child, 1975; Woodward, 1965). However, this research chooses to focus on one variable – organisational size for both practical and academic reasons. Practically, SMEs are key to China’s economy (which is the world second largest) and the Chinese government has recognised the difficulties associated with the development of the SME community (e.g. MIIT, 2011b). To help SMEs gain more assistance from professionals such as

management consultants, the government is developing a network platform which collects information from both SMEs and consulting companies (CECMAC, 2014). Hence, consulting in SMEs will become one of the most important themes in China's economy in the near future.

The academic reason to focus on size relates to the management consultancy literature which largely concentrates on consulting activities in LEs. The consulting activities and consultant-client relationship in SMEs are still under researched. In this sense, reviewing the contingency literature associated with organisational size enabled the researcher to gain a better understanding of the structural characteristics of SMEs.

Organisational size

Organisational size is recognised as a main and key contingency variable (Blau et al., 1976; Child and Mansfield, 1972; Pugh et al., 1969). Although there are many indicators to define organisational size, including net assets, the number of employees and annual turnover, from a contingent point of view, the organisational size is better represented by the number of employees or personnel (Child, 1973).

Researchers have examined the relationship between organisational size and some organisational structural characteristics, including decentralisation, specialisation, standardisation, formalisation and structural differentiation. Based on a UK survey, Pugh et al. (1969) demonstrate that organisational size is positively associated with specialisation, standardisation and formalisation, but is negatively associated with

centralisation. They propose that the larger the organisation, the more likely it will rely on standardised procedures, formal paperwork and decentralised authority (Pugh et al., 1969). Similarly, Hickson et al. (1969) claim that organisational size is positively associated with structural characteristics, including role and functional specialisation, standardisation, formalisation and decentralisation.

Later, the size-structure relationship suggested by Pugh et al.'s (1969) study is confirmed by other scholars. For example, Bryman et al. (1983) support the existence of the size-structure relationship. Hinings and Lee (1971) and Miller and Dröge (1986) agree that size has a strong impact on the organisational structure and it is positively associated with specialisation, formalisation and standardisation. Researchers, such as Clark (1990) and Conaty et al. (1983), also confirm the positive correlation between organisational size and functional specialisation. Ghobadian and Gallear (1997) indicate that larger organisations are more likely to be governed by formal procedures and processes. Yusof and Aspinwall (2000) and Wong and Aspinwall (2004) argue that the structural characteristics of small organisations can be described as simple and flat with a low degree of functional specialisation and formalisation. Yusof and Aspinwall (2000) also believe that the decision process in small organisations can be more centralised. Sousa and Aspinwall (2010) summarise that the structure of small organisations is simple with a short decision-making process.

Blau (1970) and Blau et al. (1976) extend the understanding of the relationship between organisational size and structure by introducing a new measure into the size-structure relationship-structural differentiation. This measures the extent to which the

organisation is vertically and horizontally divided into different parts, such as hierarchical levels, subsections and job titles (Blau, 1970). By analysing the data from manufacturing organisations in New Jersey, the results show that organisational size is significantly associated with most measures of structural differentiation (Blau et al., 1976). In other words, larger organisations are more likely to have more hierarchical levels, divisions, sections and job titles (Blau et al., 1976). The results from other studies also support Blau et al.'s (1976) study. For example, both Marsh and Mannari (1981) and Wong and Birnbaum-More (1994) suggest a positive correlation between organisational size and structural differentiation.

Hence, in general, from a contingent point of view, it is argued that an organisation with a smaller number of employees is expected to have a simpler structure because top managers are able to make direct decisions for most tasks efficiently and effectively with a less complex decision making process. However, when the organisation becomes larger, these managers are unable to directly make decisions for every task as the decision making processes becomes more complicated. In this case, a simple structure does not fit a larger organisation and a more bureaucratic structure is required. Donaldson and Luo's (2014) recent review of the literature in relation to the size-structure relationship shows that, rather than being outdated, the initial studies of the size-structure relationship (e.g. Hickson et al.'s (1969) and Pugh et al.'s (1969) studies) remain "*an ongoing source of ideas and inspiration*" (Donaldson and Luo, 2014:96) for researchers in the area of organisation studies.

Given that the client organisations included in this research are SMEs, this suggests that they should have a simpler organisational structure with direct and tight management control. The structure of SMEs can affect the consultant-client relationship. This may be a challenge for management consultants because if they attempt to change the status quo of their client organisations, they may need to actively seek for more direct support from top managers to gain legitimacy. Particularly in the context of Chinese SMEs, the decision-making is more likely to be top-down due to the “command and control” characteristic of traditional Chinese culture. Moreover, it may be problematic for consultants to gain a quick understanding of their client organisations’ context because the operations procedures in SMEs are not normally well documented. Drawing on contingency theory, this research will further explore how SME structural characteristics can impact on the consultant-client relationship.

3.4.1 Summary – contingency theory and management consultancy

Contingency theory posits that there is no “one way fits all” or universal way to manage organisations. It suggests that organisational characteristics, such as organisational structure, should fit the contingency, such as organisational size, task, and technology. If the organisational characteristics fail to fit the contingency, then the effectiveness of the organisation can be negatively affected. The key findings of contingency theory are summarised in table 3.6.

Table 3.6 A summary of key findings in contingency theory

Year	Authors	Key findings
1961	Burns and Stalker	Mechanistic and organic are the two extremes of organisational structures. Generally, mechanistic structure fits low task uncertainty (i.e. low rate of changes in technologies and markets) and organic structure fits high task uncertainty.
1965 1967	Woodward Perrow	Technology is an important contingency that has a great impact on organisational structure.
1969 1983 1986 1990	Hickson et al. Pugh et al. Conaty et al. Miller and Dröge Clark	Organisational size plays a crucial role in contingency theory. Normally, larger organisation has a more bureaucratic structure whereas smaller organisation has a simpler and flatter structure.
1970 1976 1981 1994	Blau Blau et al. Marsh and Mannari Wong and Birnbaum-More	Organisational size is positively associated with organisational structural differentiation .
1996 2001	Donaldson	Contingency theory argues that there is no “one fits all way” or “one best way” to manage and operate organisations. The organisational characteristic should fit the level of its contingency. Contingency theory is dominated by structural contingency tradition.
2000 2004 2010	Yusof and Aspinwall Wong and Aspinwall Sousa and Aspinwall	The structure of small organisations can be categorised as simple and flat with a few management layers and low degree of formalisation and standardisation. The decision-making process in small organisations is normally short and fast.
2014	Donaldson and Luo	Studies of the size-structure relationship still plays a key role in organisational research.

Source: Developed by the researcher

Organisational size is considered as an important contingency that can affect organisational structure. Based on surveys of different sized organisations in various industries, contingency theory suggests that organisational size is positively associated with de-centralisation, specialisation, standardisation, formalisation and structural differentiation. In short, a smaller sized organisation is expected to have a simpler and flatter organisational structure, while a larger organisation should have a more bureaucratic structure. Since the client organisations in this research are SMEs, a simpler and flatter organisational structure is expected. As the traditional Chinese culture emphasises the “command and control”, it is expected that the decision-making in Chinese SMEs are more likely to be top-down rather than bottom-up. The structural characteristics of SMEs may affect the consultant-client relationship because it may cause power and control issues between consultant and client. Hence, it is worth exploring how the SME structural characteristics may influence the consultant-client relationship.

3.5 Conclusion and relevance to the thesis

This chapter has reviewed and discussed theories, including organisational learning, institutional theory and contingency theory, which are employed in this research. Reviewing these theories has enabled the researcher to identify research issues and gaps, which are not well addressed in the literature. Based on the literature review presented in Chapter 2 and 3, four research gaps can be identified:

- little academic literature has addressed the changing nature of the consultant-client relationship throughout the consultancy project from both the consultancy and client organisation's perspectives;
- the impact of SME structural characteristics on the consultant-client relationship is under researched;
- little academic literature has directly focused on the roles of consultants in organisations' learning of new practices such as lean practices; and,
- there is a lack of research on the outsider-driven deinstitutionalisation such as the roles of consultants in organisations' abandonment of existing practices.

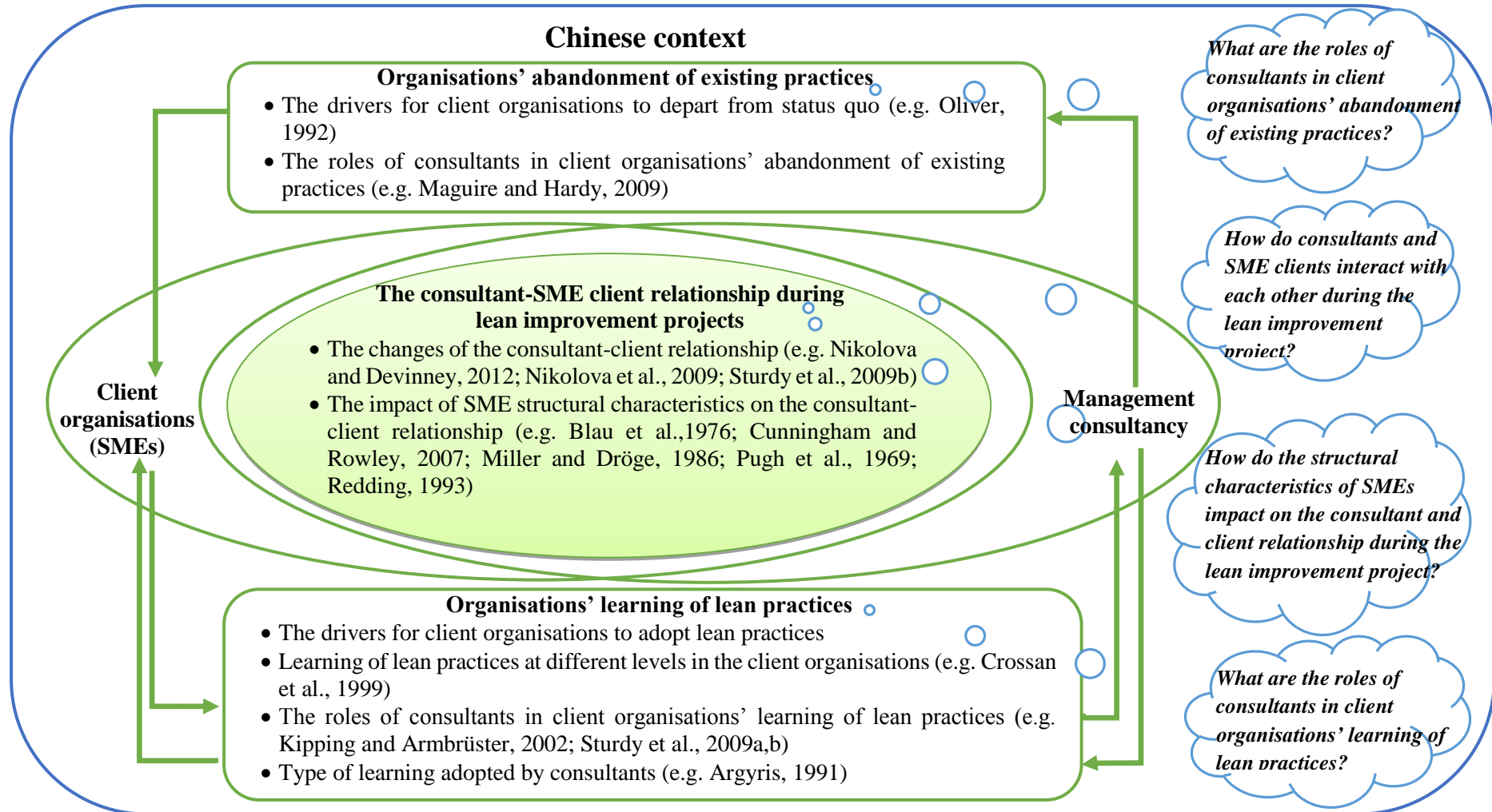
Four research questions are developed in relation to the above research gaps, which are:

- how do consultants and SME clients interact with each other during the lean improvement project?
- how do the structural characteristics of SMEs (particularly issues stemming from their smaller size) impact on the consultant and client relationship during the lean improvement project?

- what are the roles of consultants in client organisations' learning of lean practices?
- what are the roles of consultants in client organisations' abandonment of existing practices?

This research focuses on the consultancy-involved lean improvement projects. Lewin (1947), cited in Burnes (2004a:985) suggests that a successful change project usually consists of three steps, including unfreezing (i.e. destabilising the existing equilibrium in the organisation to enable the change), moving (i.e. changing from the old behaviours to a set of new and more acceptable behaviours), and, refreezing (i.e. stabilising a new equilibrium in the organisation to prevent the new behaviours from being regressed). Due to resource constraints (e.g. time, research budget, accessibility), this research concentrates on the first two steps. The above mentioned research gaps are categorised as three main research themes in relation to the first two steps of Lewin's model, which are: organisations' abandonment of existing practices (i.e. unfreezing), the consultant-SME client relationship during lean improvement projects and organisations' learning of lean practices (i.e. moving). A research framework which illustrates these three research themes is formulated with research questions being positioned against each theme (see figure 3.2). The next chapter focuses on justifying the ontological, epistemological and methodological choices of this research.

Figure 3.2 The research framework to study the consultant-client relationship in Chinese SMEs' lean improvement projects



Key: → direction of learning; contextual boundary

Source: Developed by the researcher

CHAPTER 4 RESEARCH METHODOLOGY

Chapter 4 Research Methodology

4.1 Chapter Introduction

The theoretical and applied concepts associated with the area of this research were reviewed and examined in Chapters 2 and 3. The research gaps and research framework were also established as a result of literature review (see figures 2.2 and 3.2). This chapter aims to explain and justify the choice of the methodology employed in this research.

This chapter is further divided into five sections. The first section considers the philosophical stance on the basis of reviewing the ontological and epistemological assumptions underlying three dominant philosophical perspectives – positivism, naturalism and realism. Since multiple sources of data are expected to be used in this research, the second section discusses different types of triangulation. The third section reviews the research methods that have been employed within the area of management consultancy. Based on the methodological gaps of previous research, the fourth section provides more detailed explanations and justifications for the research strategy and design including the choice of the case study method, the selection of cases, and data collection and analysis methods. Ethical issues and validity and reliability in case study research are also addressed. The final section concludes the strategy and design for this research.

4.2 Research Paradigms

According to Bryman (1988:4), the term “paradigm” refers to “*a cluster of beliefs and dictates which for scientists in a particular discipline influence what should be studied, how research should be done and how results should be interpreted*”. Easterby-Smith et al. (2012) highlight that understanding different research paradigms constitutes the core and heart of management research because it enables researchers to systematically consider their research designs and their limitations or strengths. It is also noticed by many researchers (e.g. Blumberg et al., 2005; Bryman and Bell, 2011; Burrell and Morgan, 1982; Easterby-Smith et al., 2012; Wass and Wells, 1994) that a number of research paradigms exist and they provide different (sometimes competing) assumptions of ontology (i.e. the nature of the social reality) and epistemology (i.e. the ways to investigate the nature of the reality). As suggested by Wass and Wells (1994), they can be categorised as three broad epistemological perspectives: positivism, naturalism and realism.

4.2.1 Positivism

Positivists stress the externality and independence of the social world and they believe that phenomena in the social world can be observed, quantified and measured objectively (Saunders et al., 2012). They attempt to generalise the law-like causal relationship in the collected data (Gill and Johnson, 2010). From a positivistic point of view, there is no difference between social science and natural science at the methodological level (Wass and Wells, 1994). Similar to a scientific experiment, most positivists adopt a deductive approach (usually with quantitative research methods) to carry out their research (Blumberg et al., 2005). On the basis of the existing theories,

they normally develop several hypotheses to illustrate the casual relationship between the dependent variable and independent variables, and then by statistically analysing the data from large-scale questionnaires, structured interviews or simulation, the developed hypotheses can be tested and confirmed or, sometimes, rejected (Saunders et al., 2012). Researchers are required to conduct their research in a value-free manner (Thomas, 2004). In other words, researchers are external to the data collection processes and the substance of the collected data cannot be amended (May, 2001). The validity and reliability depend on the extent that the research can be repeated in an identical environment and whether the results from the current research can be generalised to a wider or even the whole population (Wass and Wells, 1994).

Hence, research from the positivistic point of view covers a wide range of situations and can be conducted in a more economical and less time consuming way (Easterby-Smith et al., 2012). However, Bertrand and Fransoo (2002) argue that positivism and its relevant research methods are unable to facilitate researchers to understand the complexity of the real social world. Meanwhile, Easterby-Smith et al. (2012) criticise that positivism is ineffective to gain an in-depth understanding of the processes of people's actions and the implications of their actions.

4.2.2 Naturalism

Naturalism provides a completely opposite perspective to positivism. It rejects positivists' perspective of externality of the social reality. It argues that social reality is not external to the consciousness of the individual and is actually more complicated than one has observed (Saunders et al., 2012). The reality is socially constructed and interpreted by individuals through different languages (Burr, 1995). Naturalists believe that individuals make sense of social reality from different points of view and thereby, instead of generalising the law-like causal relationship they seek to gain a more in-depth understanding of individuals' thinking, feeling, and the meaning of their behaviours (Wass and Wells, 1994).

In comparison to positivism which follows a deductive approach, most naturalists employ an inductive research approach with qualitative research methods (Burr, 2003). There are no pre-defined hypotheses or propositions in the naturalists' research because they believe that theory should be grounded in, or generated from, the empirical world through participant observation and unstructured interviews (Wass and Wells, 1994). Researchers are not value-free during the data collection processes. From a naturalist point of view, researchers are part of the social life and they give meaning to the roles of themselves and others in social life (Saunders et al., 2012). Hence, it is important to incorporate researchers' views and perspectives while describing and explaining the complex social world (Bryman and Bell, 2011). The validity of research is determined by whether the theory is grounded in a specific social context and can be applied to other similar context (Wass and Wells, 1994).

Naturalism, on the one hand, provides rich insights into the changes and meanings of the social world, as well as theory generation (Walliman, 2006). However, on the other hand, it is less economical and more time consuming for researchers to complete the data collection processes and in addition, the data analysis and interpretation processes may be more difficult because they mainly rely on the researcher's tacit knowledge (Easterby-Smith et al., 2012).

4.2.3 Realism

According to Wass and Wells (1994), the epistemological perspective that stands in the middle of positivism and naturalism is categorised as realism. Realism shares some assumptions with both positivism and naturalism; but it also differs from these perspectives. It disagrees with naturalism's belief that the social world is completely composed of meanings and interpretations by partially echoing the positivist's perspective and highlighting the externality and independence of the social world (Wass and Wells, 1994). It also disagrees with positivism's belief that all phenomena can be observed and measured objectively by partially including the naturalist's perspective and recognising the existence of different subjective interpretations in the social world (Bryman, 2008). Realism reconciles the two competing perspectives of positivism and naturalism by assuming that the knowledge incorporates both tangible and intangible aspects (Wass and Wells, 1994). In other words, the law-like causal relationship advocated by positivism can only partially explain the social world and thereby, the subjective interpretations of different individuals should also be considered (Wass and Wells, 1994).

Through combining and reconciling positivism and naturalism, realism provides a wide range of methodological choices. As argued by Miles and Huberman (1994), to understand the complexity of business management, both numbers and words are needed. In this sense, realism offers the opportunity to combine different types of data (i.e. both quantitative data and qualitative data) and different data collection methods (e.g. questionnaire, interview and observation). Wass and Wells (1994) suggest that the complete tool kit for data collection offered by realism is often adopted in the context of a case study.

Given the broadness of the coverage of realism, Wass and Wells (1994) point out that realism can extend from the central position to positivist and naturalist positions. Positivist realism believes that subjective interpretations are secondary to the tangible objects and it seeks to explain the impact of the subjective interpretations on social phenomena rather than understanding how the impact may occur. Conversely, naturalist realism (also known as critical realism) recognises that there are different layers of social reality, including the real (i.e. the domain of structures and powers which may not be directly detected), the actual (i.e. the activated causal powers), and the empirical (i.e. the experienced events) (Bhaskar, 2008). Naturalist realism aims to unfold these different layers of social reality and understand their underlying mechanisms and structures, as well as their effects in a specific context (Easterby-Smith et al., 2012).

The multiple case studies with multiple data collection methods and sources of data in this research reflect on a realist point of view, which is different from the positivistic

perspective that was adopted previously by the researcher. Much of the researcher's past experience (i.e. the undergraduate study) was based on quantitative research methods, such as questionnaire and structured interview, which were commissioned by the university and the company that the researcher studied and cooperated with.

However, completing modules on the Diploma for Social Science Research Methods, such as philosophies of social science research, principles of qualitative research and management research design, influenced the researcher's methodological choices. These modules broadened the researcher's horizon by introducing alternative epistemological perspectives and research methods. Through completing the assignments of these modules, the researcher was able to re-think and practise the research design critically and carefully. As argued by Crane (1999), the researcher's methodological choice should not be constrained by one paradigm. Moreover, Wass and Wells (1994:5) emphasise that "*.....in a coherent research programme ontology, epistemology, methodology, research techniques and even the way in which the research will be presented should be consistent both with each other and with the particular questions posed by the research*". In this sense, the change of perspective enables the researcher to better investigate and understand the research area and to achieve the research aim.

It may be argued that the central position of realism adopted by the researcher is actually closer to the naturalist realism because these multiple case studies mainly rely on the qualitative data. However, the value-free role of the researcher (non-participant observation) in this research brings it back to the central position of realism.

4.3 Triangulation

As mentioned in section 4.2.3, multiple data collection methods and sources of data were employed in this research. According to Bryman (2012), the use of more than one method or source of data to investigate social phenomena is named as “triangulation”. Denzin (1970) recognises the risk of solely relying on a single method or source of data because it may lead to personal biases. To deal with this risk, triangulation is considered as the suitable solution (Denzin, 1970). He further identifies four types of triangulation including data triangulation, methodological triangulation, investigator triangulation and theory triangulation (Denzin, 1970).

Data triangulation refers to using different data sources in the research. Decrop (1999) suggests two methods to achieve data triangulation. One is gathering different types of materials, including primary data from interviews or observations and secondary data from existing documents (Decrop, 1999). In this research, both primary data from interviews and direct observations and secondary data in relation to the case companies and projects were collected. The other method is to write field notes to record the specific phenomena which do not directly appear in the interview (Decrop, 1999). In this research, the observation sheet was adopted to record the specific phenomena.

Methodological triangulation requires the researcher to apply more than one method to investigate social phenomena (Jick, 1979). The underlying rationale for methodological triangulation is that each method has its own limits (McGrath, 1982).

In this sense, to enrich the insights into a specific social phenomenon and improve the validity of research findings, researchers are encouraged to employ more than one research method (Mathison, 1988). In this research, multiple methods, including semi-structured interviews, direct observations and documentation, were employed to collect data. Findings from one data collection method were compared with the findings from other data collection methods.

Investigator triangulation means involving different researchers in the same research project and it requires that these researchers to interpret the same body of collected data (Denzin, 1970). In a doctoral study, it is difficult to implement investigator triangulation because the researcher is expected to conduct the research independently. Nevertheless, the researcher made several effort to reduce the risk of over relying on her subjective understanding of the research area by actively discussing the research methods and findings with her supervisors, experts from the industry, and other colleagues in academia.

Theory triangulation encourages researchers to adopt various theoretical perspectives when studying social phenomena (Denzin, 1970). Chapter 3 reviewed the theories (i.e. organisational learning, institutional theory, and contingency theory) underpinning this research. The potential research gaps and issues in relation to these theories were summarised at the end of literature review (see figure 3.2). These gaps and issues will be revisited and discussed in the discussion part of this thesis.

To summarise, this research mainly incorporates data triangulation, methodological triangulation and theory triangulation. These types of triangulation facilitate the researcher to overcome the deficiencies (e.g. personal bias) of the use of a single research method (Oppermann, 2000).

4.4 Research methods in management consultancy

“Despite the now huge quantity of research on consultancy, we still know relatively little of its practices in detail.” (Sturdy, 2011:521)

The area of management consultancy is dominated by the use of a single method – interviews (Sturdy et al., 2009b; Sturdy, 2011, 2012) and there is still a lack of sufficient understanding of consultancy practices. One of the most important reasons for this is the “inaccessibility” to consultancy projects (Sturdy et al., 2009b). Sturdy et al. (2009b:47) identify four inhibitors to the accessibility to management consultancy projects, as follows:

- topics included in the consultancy projects are usually politically and commercially sensitive (e.g. strategic change);
- the financial cost of the projects to the client is sensitive;
- consultants and clients do not want to be exposed to or questioned by others as they normally identify themselves as experts; and
- ideally, researchers need to gain access to both the consulting company and the client organisation.

Although there are many difficulties to gain access to the management consultancy projects, Sturdy (2012) encourages researchers to actively seek significant access by building a good relationship with the client organisations. He maintains that “*there remains much to be done in terms of exploiting research methods and data sources beyond that of the research interview*” (Sturdy, 2012:474). Similarly, Nikolova and Devinney (2012) highlight that future research should provide a more in-depth understanding of the consultant-client relationship by unfolding the roles played by consultants and clients, and different activities undertaken during the consultancy projects.

In addition to the “inaccessibility”, the second issue relates to the focus of previous research. In other words, whose perspective do you present – the consultant’s, client’s, or both of them? As observed by Alvesson et al. (2009), Fincham (2012) and Sturdy (2009b), most studies represent the consultant’s perspective because the interviews are normally conducted with consultants. To gain a more comprehensive understanding of the consultant-client relationship, Christensen and Klyver (2006) and Engwall and Kipping (2002) argue that both the consultant’s and client’s perspectives should be investigated and considered. However, this argument leads to another issue - while it is easier to identify who is a consultant in a management consultancy project, the definition for the client seems more ambiguous. Previous research normally views senior managers or project managers as the clients (Fincham, 2012; Sturdy et al., 2009b). As noticed by Schein (1997), there are six types of clients at different stages of management consultancy projects. In this sense, the definition of the client should not be limited to “senior managers or project managers”. Voice from other clients, such as middle managers and employees, should also be considered. Moreover, most

studies focus on the consultant-client relationships in LEs. Only a few studies investigate the use of management consultancy in SMEs and most of these have adopted single method – survey (e.g. Ramsden and Bennett, 2005; Johnson et al., 2007; Soriano et al., 2002). In this sense, it calls for a more comprehensive understanding of the consultant-client relationships in SMEs by the use of multiple research methods and sources of data.

4.5 Research strategy and design

As documented in the previous section, most studies in the area of management consultancy rely on interviews. This research employs a different research strategy – a multiple case study methodology with multiple data collection methods and sources of data. The following sections will review and justify the methodological choices in this research including the choices of case study method, the selection of cases, data collection, and analysis methods. Issues that relate to research ethics and validity and reliability in case study research will also be addressed.

4.5.1 The choice of a case study methodology

According to Yin (2009), the definition of case study covers two technical aspects. One concerns the scope of the case study. Yin (2009:18) proposes that the “*case study investigates a contemporary phenomenon in depth and within its real-life context*”. This implies that there are no clear boundaries between phenomenon and context in most case study research (Miles and Huberman, 1994; Yin and Davis, 2007). By rejecting case study as a simple data collection tactic, Yin (2009) argues that case

study is an “*all-encompassing method*” that also incorporates data collection and analysis methods. In this sense, the other technical aspect of the definition highlights that multiple sources of evidence or data are expected to be collected and analysed in case study research and the convergence can be achieved by triangulation (Yin, 2009).

Eisenhardt (1989) and Voss et al. (2002) point out that it is important for researchers to match their research questions with the appropriate research methods. Yin (2009) categorises six types of research questions and their preferred research methods (see table 4.1).

Table 4.1 Different types of research questions and their preferred research methods

Questions \ Methods	Experiment	Survey	Archival analysis	History	Case study
How, why?	√			√	√
Who, what, where?		√	√		
How much or how many?		√	√		

Source: Adapted from Yin (2009:8)

It is suggested that a case study is most suitable for “how” (also exploratory “what” questions) questions and “why” questions because these types of questions “*deal with operational links needing to be traced over time rather than mere frequencies*” (Yin 2009:9). In this research, the key research questions are “how” questions and exploratory “what” questions (see figure 3.2), and thereby, case study should be considered as the most favoured research method. Blumberg et al. (2005) and Stuart et al. (2002) further propose that case study can be considered as the preferred research

method when the investigation of a specific research phenomenon is still in its infancy. As addressed in Chapter 2, only a few studies directly concentrate on management consultancy in SMEs and the consultant-client relationship in SMEs is still under researched.

Another feature that distinguishes a case study from histories and experiments (which are also viewed as suitable research methods for “how” and “why” questions) is the extent to which the investigator can control or get access to the actual behavioural events (Yin, 2009). Compared to histories, which mainly focus on the “*dead past*” and uses documents as the primary source of data, a case study benefits researchers by providing a range of evidence such as interviews, observations, and documents (Saunders et al., 2012). This evidence provides useful insights into the research concepts (Siggelkow, 2007). Compared to an experiment, which requires the direct control of behavioural events, a case study allows researchers to investigate the research phenomenon within its dynamic natural setting (Cook and Payne, 2002; Eisenhardt, 1989). In this research, the adoption of a case study enables the researcher to better understand the context that the consultancy projects are embedded in and provide a more comprehensive image of the consultant-client relationship by investigating perspectives from consultants and clients (e.g. managers, supervisors and operators). As summarised by Barratt et al. (2011), Meredith (1998), and Voss et al. (2002), a case study facilitates researchers to explore and explain the nature and complexity of a specific research phenomenon within its natural setting.

Although the case study method possesses its own advantages, it still confronts several challenges. There are three main challenges for case study, which are: rigour, time and cost, and generalisability. As argued by Voss et al. (2002), a case study does not mean entering some organisations without a clear purpose. In comparison to other research methods, such as a survey or an experiment, fewer guidelines are available for a case study (Yin, 2009). The second challenge concerns the time and cost of a case study research. Getting access to different types of data and collecting them from multiple sources can be time consuming and costly (Eisenhardt and Graebner, 2007; Stake, 1994). However, Yin (2009) contends that a case study should not be confused with long-term participant observation. It is possible for a case study to be undertaken in a cost and time efficient manner; for example, using telephone or Internet based techniques to collect data.

The final, and perhaps the most common, issue of the case study method is its generalisability (Bryman, 2008). In other words, how can the results from the case study be generalised? To respond to this critical question, Yin (2009) stresses two ways of generalisation – statistical generalisation (i.e. generalisation is made to the universe based on the collected sample) and analytic generalisation (i.e. generalisation based on comparing the established theory with the findings from case studies and the replication can be suggested when more than two cases confirm the same theory). Hence, case study research does not intend to pursue statistical generalisation but it aims to achieve analytic generalisation (Yin, 2009).

4.5.2 Case study plan and design

Instead of conducting a single case study, this research consists of multiple cases. Compared to a single case study, multiple case studies possess several advantages. According to Saunders et al. (2012), multiple case studies are more likely to enrich the collected evidence. In addition, it allows the evidence from different cases to be compared and contrasted, and researchers are expected to consider the similarities and differences between cases and reflect on the previously developed theories (Bryman and Bell, 2011). Hence, it is commonly suggested that multiple case studies can contribute to the robustness of the findings by reducing the risk of observer bias and enhancing external validity (Blumberg et al., 2005; Herriott and Firestone, 1983; Voss et al., 2002). Yin (2009:60) maintains that if researchers have the choice or resources, then multiple case studies (even just two cases) should be the preferred option rather than a single case study. Although it may be argued that a single case study is appropriate when studying the unique case, other researchers may criticise “*your ability to do empirical work beyond having done a single case*” (Yin, 2009:61). In this sense, doing multiple case studies can cope with this criticism.

Conducting multiple case studies, however, is not an easy task. It needs more time and resources than doing a single case study. It may be more difficult for researchers to get access to a number of cases than a single case and it may be more time consuming to collect different types of data. As mentioned by Saunders et al. (2012), it is easier to manage a single case study than multiple case studies. Another challenge is the selection of cases which will be discussed later.

The unit of analysis

According to Yin (2009), it is important to identify the unit of analysis in the case study research because it defines the boundaries of the case study. The unit of analysis for the case study research may refer to an individual, an organisation or some social communities (Voss et al., 2002). Yin (2009) suggests that the unit of analysis should tightly link to the specific research aims and questions.

This research aims to critique the consultant-client relationship of lean improvement projects in Chinese SMEs. The starting point, as a unit of analysis for this research, is the “Chinese SME”. In this research, five Chinese SMEs were investigated. As the consultant-client relationship constitutes the core of this research, the consultancy project undertaken in the Chinese SME is then considered as the unit of analysis. In this research, five lean improvement consultancy projects in these five Chinese SMEs were studied. A further investigation into the different stages of these consultancy projects allows the researcher to gain a more in-depth understanding of the interactions between the consultants and the managers and employees in these Chinese SMEs.

The selection of cases

Although case study research does not follow the sampling logic adopted for survey research (i.e. selecting samples from the entire population based on the statistical procedures), it is believed that some cases may offer more learning opportunities than others (Stake, 1995). As argued by Miles et al. (2013), sampling in qualitative research should be purposive rather than random. Yin (2009) suggests that the selection of

multiple cases should follow replication logic. The case can be selected on the basis of literal replication (i.e. the case can predict similar results) or theoretical replication (the case can have predictable and contrary results) (Yin, 2009).

The selection of cases in this research is more purposive and mainly reflects theoretical replication. This research focuses on consultancy-involved lean improvement projects in Chinese SMEs. According to All-China Federation of Industry and Commerce's (2011) report, there is a positive correlation between the intensity of SMEs' distribution and the development of regional economy. Many SMEs are distributed in the economically developed regions such as Eastern China and actually over 60% of SMEs are located in the eastern part of China. (All-China Federation of Industry and Commerce, 2011). Since SMEs are more likely to populate the eastern part of China, the SME client organisations included in this research are located in this area. This research aims to critique the consultant-client relationship in Chinese SMEs' lean improvement projects. In this sense, other selection criteria were also adopted to ensure that the research aim could be achieved. Table 4.2 summarises the selection criteria adopted in this research.

Table 4.2 A summary of case selection criteria

Selection criteria	Reasons to adopt these criteria	Application of criteria	
		Pilot study	Main study
SMEs that are located in the eastern part of China.	Most Chinese SMEs are located in this area.	√	√
The consulting company should have good reputation and experience of conducting lean projects in SMEs.	To provide more opportunities for the researcher to gain access to the client organisations.	√	√
The client organisations should be willing to allow the researcher to access their managers and employees.	To collect “voices” from different clients in consultancy projects.	√	√
The roles played by the consultants in these projects should be different.	To cover different types of the consultant-client relationship.		√
The consultancy projects should be at their mid to final or final stages.	To ensure the researcher can get sufficient project materials.		√

Source: Developed by the researcher

As suggested by Sturdy (2012), building a good relationship with the case organisations may be helpful for researchers to gain access to the consultancy projects. Similarly, Easterby-Smith et al. (2012) and Saunders et al. (2012) confirm that using existing contacts or personal networks can be useful to negotiate access. In this research, the researcher had a good relationship with one director in ZQ (the pseudonym of consulting company) consulting company (see table 4.3).

Table 4.3 The background information of ZQ Consulting Company

Background	ZQ Consulting Company
Ownership	Private
Company age	29 years (founded in 1985)
Business sector	Management consulting
No. of employees	65 full-time employees and 98 part-time employees
Customers	LEs and SMEs in the manufacturing sector such as machinery, textile, apparel and food manufacturers
Main services	Organisational change and improvement projects including lean improvement projects at either strategic level or operational level

Source: Adapted from ZQ Consulting Company (2014)

ZQ Consulting Company, which is located in the eastern part of China, is one of the leading consulting companies in its local area. It has been recognised as one of the “most influential consulting companies in China” and “the outstanding management consulting companies”. It has 65 full-time employees and 98 part-time employees. Many of these full-time employees have high achievements in the consulting industry, for example, six of them are CMC (Certified Management Consultant), eight of them are senior engineers, five of them are senior accountants and nineteen of them are senior consultants. They provide a range of management consulting services, such as strategic management, performance assessment, human resource management, marketing strategy, financial management, and, most recently, lean improvement, to their client organisations (most of them are SMEs).

With the support from ZQ consulting company, an invitation letter (see Appendix 2) was sent to its current client organisations (i.e. organisations categorised as SMEs in China). To enhance the possibilities of access, it was highlighted by the researcher that

the collected data, the information of the client organisations and the participants' personal information would be kept confidential. Follow-up telephone calls were also made by the researcher one week after sending the invitation letters. Eight client organisations replied and five of them agreed to participate in this research. Hence, an email was sent to these five organisations with more detailed information about the interview questions, and the observation guidelines. Both the client organisations and consulting company agreed that the role of the researcher during the investigation should be independent and objective (i.e. non-participant). Table 4.4 summarises the background of client organisations. More detailed information in relation to the consultancy projects will be presented in the results chapter.

Table 4.4 The background of the client organisations

Background	Autoparts Ltd.	Textile Ltd.	Glass Ltd.	Fasteners Ltd.	Nailguns Ltd.
Ownership	Private	Private	Private	Private	Private
Company age	28 years	13 years	11 years	9 years	20 years
Business sector	Automotive industry	Textile industry	Glass manufacturing	Machinery manufacturing	Electrical equipment manufacturing
Market position	Tier 2 supplier	Tier 2 supplier	Tier 1 supplier	Tier 1 supplier	Manufacturer
No. of employees	296 employees	330 employees	155 employees	127 employees	400 employees
Main markets	China and Japan	China	China	U.S.A	E.U and U.S.A
Main products	Auto parts	Grey fabric	Toughened glass, ply glass and insulating glass	Fasteners	Nail guns
Previous experience of lean improvement projects	6S training provided by a consulting company	None	None	Basic understanding about 6S from books	Basic lean training provided by the customer

Source: Adapted from the internal documents provided by the five client organisations

4.5.3 Data collection methods

Collecting different types of data and evidence constitutes an important part of the case study research (Voss et al., 2002). In this research, semi-structured interviews, direct observation, and documentation were employed as the data collection methods.

Semi-structured interview

Interview is one of the most commonly used data collection methods in social science research, particularly in the case study research (Yin, 2009). The main benefits are: first, it enables researchers to ask closed or open questions, which directly link to their research questions or objectives (Crowther and Lancaster, 2008). The interview provides rich insights into perceived casual relationships and organisational realities (Easterby-Smith et al., 2012). It possesses the advantage of exploring complex research questions and topics. Other benefits, include a relatively high level of flexibility and response rate (Sarantakos, 2005). Yin (2009) summarises the risks of interview; for example, personal bias due to poorly designed questions and inaccuracies due to poorly recalled interviews.

According to Saunders et al. (2012) and Yin (2009), there are three typical types of interview, including in-depth (unstructured) interview (i.e. asking for the key interviewee's opinions broadly without a pre-defined interview guide), focused (semi-structured) interview (i.e. interviewing with a set of pre-defined themes or key questions), and structured interview (i.e. interviewing with standardised questions, like questionnaires).

In this research, semi-structured interviews were employed. As suggested by Gubrium and Holstein (2001), semi-structured interview balances the trade-off between the richness of data (which is often viewed as the strength of unstructured interview) and the consistency and standardisation of collected data (which is the strength of structured interview). The interview guide that contains the core themes and questions can be pre-developed and thereby, the interviewer can ensure these themes are covered and questions are asked with similar wording in each interview (Bryman, 2008). It offers a relatively high degree of flexibility during interviewing. By using semi-structured interview, questions can be adapted to the specific organisational context because some of them can be skipped and other organisational specific questions can be added during the interviews. The order of the interview questions may also be changed due to the flow of the conversation between the interviewer and the interviewee (Saunders et al., 2012). It is suggested that the guide for the semi-structured interview should include some prompts to promote or close the discussion (Saunders et al., 2012).

Direct observation

Blumberg et al. (2005) point out that observation is the only method that allows researchers to collect real-time data in its natural settings. May (2001) indicates that observation offers opportunities for researchers to capture the events that may be ignored by other researchers. There are mainly two types of observation: direct observation and participant-observation. In direct observation, the researcher is expected to act as a passive observer while in the participant-observation, the researcher is expected to actually be involved in the events being investigated (Yin,

2009). In this research, direct, non-participant observation was employed due to the requirements of the agreed accessibility and the number of cases that needed to be investigated.

Yin (2009) contends that direct observation can provide useful and additional data in case study research because it covers both the reality (i.e. valid and real-time information) and context (i.e. the specific context of the case) of the cases. However, direct observation may be time-consuming and costly since the researcher needs to devote a great number of hours to observe certain phenomena (Yin, 2009). Monahan and Fisher (2010) argue that individuals may work differently when they know they are being observed (which is also known as observer effect). In this sense, observation may be unable to produce reliable data. Robson (2011) suggests that the researcher should have as little interaction with the informants as possible to minimise this effect. Walliman (2006) stresses the risk of information overload when using observation since the collected data may include all of the information of the observed phenomena. Mason (2002) points out that taking field notes can be a useful strategy to deal with this issue.

Documentation

Yin (2009) posits that documentary information is used almost in every case study. Documentary information is more stable than other sources of data because it can be reviewed repeatedly, and it provides rich historical information since it covers a wide range of activities and events that have occurred in the past (Bryman and Bell, 2011).

In the context of case study research, the main purpose of using documents is to verify the evidence from other sources. For example, information from the company documents can be compared with primary data from interviews and if they are not consistent with each other, then this implies the researcher needs to conduct more investigations into the topic (Yin, 2009). However, the use of documents is not free of risks. It may have reporting bias from the author of the documents and it may also be difficult to gain access to the documents, particularly organisational or project related documents (Bryman and Bell, 2011; Sarantakos, 2005). To deal with these issues, Yin (2009) maintains that the researcher should be aware that documents are written based on some specific purposes and that the researcher needs to identify these purposes while reviewing these documents.

4.5.4 Application of data collection methods

The pilot case study

Yin (2009) suggests that conducting a pilot case study can facilitate the researcher to investigate some basic issues of the research topic and further the development of their theoretical propositions. It also enables researchers to discover the potential issues that may be encountered during data collection and thereby, the researcher can refine their research agenda and improve data collection processes in the main case studies (Voss et al. 2002; Yin, 2009). The reflection of methodological issues in the pilot case study will be provided in Chapter 5. In addition to the above reasons, an exposure to the practice can provide opportunities for the researcher to develop a knowledge of the consulting process and to better understand the characteristics of Chinese SMEs in this research.

The pilot case study was conducted in Autoparts Ltd (pseudonym) for two main reasons. One is the accessibility. Autoparts Ltd was the first company that agreed to participate in this research and the researcher was allowed to access to its managers, employees and workplace. The other concerns the cost. Autoparts Ltd is located closer to the researcher's hometown and therefore, the travel expenses were manageable within the researcher's budget.

The pilot study is a three-month single case study (from February 2012 to May 2012). Prior to formally collecting the relevant data, an oral presentation which introduced the research aims and planned research activities such as interview and observation, was made by the researcher to the consultants from ZQ Consulting Company and senior managers from Autoparts Ltd. During the meeting, the researcher's role in this project was formally defined as objective. Additionally, the researcher's accessibility to people, the workplace, and materials was also confirmed (see Table 4.5). After this meeting, the researcher gained access (starting 22 February, 2012) to Autoparts Ltd with two consultants from ZQ Consulting Company who were responsible for the lean improvement project.

Table 4.5 Accessibility to people and materials in the pilot study

People/ places/ materials	Activities	Full access*	With permission**
The owner and managers	Interview		√
Consultants	Interview	√	
Supervisors/ operators	Interview		√
Shop floor and offices	Observation	√ (but observation on the shop floor must be guided by managers or supervisors)	
Meetings	Observation		√ (could attend the meeting when invited)
Training courses	Observation	√	
Documents	Documentation	√ (documents for this project)	√ (other documents)
Others	Interview/Observation/ Documentation		√

Note: **“full access”* means the researcher could get access to staff or materials at any time without asking for permission from managers or consultants; ***“with permission”* means the researcher could not get access to staff or materials until permitted by the managers or consultants.

Source: Developed by the researcher

For the first two weeks, the researcher focused on collecting the background information for this project to familiarise herself with the research context. Several research activities, such as semi-structured interviews, observation and documentation, were conducted. For interviews, the interview questions were designed slightly

different for managers, consultants and employees. A copy of the interview guide can be found in Appendix 3. For observation, based on the observation guide for shop floor (see Appendix 4), the researcher observed the current state of the shop-floor management in Autoparts Ltd. For documentation, the main documents obtained by the researcher included the project plan, the training plan, and materials and documents of Autoparts Ltd.

From the interviews with the owner, managers and consultants and the project plan, it was found that the lean improvement project in Autoparts Ltd covered four stages: initial contact stage, preparation stage, implementation stage and results assessment stage. Thereby, compared to the first two-week investigation, the interview questions were changed from background-based questions to project-specific questions (see Appendix 5) in the following weeks. The interview questions related to the key activities undertaken by managers or employees and consultants in each project stage, and how learning of lean practices occurred during the project. As the lean improvement project in Autoparts Ltd was at its early implementation stage during the researcher's on-site visit, some follow-on questions about the latter implementation stage were also asked (via telephone calls) to keep the researcher informed about the project progress when writing up the pilot case study results. For observation, in addition to the shop floor (see Appendix 6), the researcher also gained access to project steering team meetings (see Appendix 7) and training courses. Therefore, the discussions between managers and consultants and the delivery of training courses were also observed. For documentation, since the start point of the project was re-organising organisational structure and rules, drafts of organisational structure and

rules were collected. Table 4.6 summarises the data collection activities in this pilot study.

Table 4.6 The summary of data collection activities in the pilot case study

Data collection activities	People/places/materials	Frequency and duration
Semi-structured interview	The owner	1 time, 1.5 hours per time
	3 Senior managers	2 times, 1.5 hours per time
	7 middle managers	2 times, 2 hours per time
	16 supervisors and operators	2 times, 1 hour per time
	The senior consultant	3 times, 1.5 hours per time
	1 junior consultant	2 times, 1 hour per time
Direct and non-participant observation	Training courses	3 times, 2 hours per time
	Project steering team Meetings	9 times
	Shop floor	3 times
Documentation	Project related including project plan, training plan and materials and drafts of organisational structure and rules Autoparts Ltd related including current rules of the company, 3 versions of organisational structure, the layout of the plant and annual reports	-----

Source: Developed by the researcher

The main case studies

Based on the pilot case study, several methodological issues were identified and the relevant counter measures to improve the data collection methods are discussed in Chapter 5. The main case studies were carried out from November 2012 to March 2013 (including a second visit to Autoparts Ltd). The pilot case study showed that the consultancy project at its early stage was unable to provide sufficient information about the implementation of lean practices. To deal with this issue, in the main case studies, all of the investigated consultancy-involved lean improvement projects were at the middle to final stage or final stage and thereby, the involved client organisations were able to provide more detailed information of their lean improvement projects. Prior to formally visiting each case company, initial telephone discussions were held between the researcher and the relevant staff in each case company to manage some practical issues; for example, when to enter the case company, who to contact during the visit, the length of interviews, the number of interviewees and the places to be observed. Accessibility to people, workplace and documents was also confirmed during these initial discussions (see table 4.7).

Table 4.7 Accessibility to people, places and materials in the main case studies

People/ places/ materials	Activities	Autoparts Ltd	Textile Ltd	Glass Ltd	Fasteners Ltd	Nailguns Ltd
Owners and managers	Interview	**	**	**	**	**
Consultants	Interview	*	*	*	**	*
Supervisors/operators	Interview (no access when they are working)	**	**	**	**	**
Shop-floor and offices	Observation (should be guided by the staff)	**	**	**	**	**
Meetings	Observation	**	*	**	*	**
Training courses	Observation	*	*	*	*	**
Documents of projects	Documentation	*	*	**	*	*
Documents of the case company	Documentation	**	**	**	**	**
Others	Interview/Observation/Documentation	**	**	**	**	**

Note: “*” means full access; “**” means with permission.

Source: Developed by the researcher

Face-to-face semi-structured interviews were conducted in each case study. As documented in Chapter 2, most previous studies focus on the relationship between consultants and managers. This research intends to gain a more comprehensive understanding of the consultant-client relationship. Therefore, the interviewees were not limited to the consultants and managers who directly constituted the project steering team. Supervisors and operators who were affected by the lean improvement projects were also interviewed. The initial interviews with managers and consultants and the project plans showed that the lean improvement projects in another four client organisations consisted of similar project stages to that in Autoparts Ltd. Hence, the interview guide adopted in the main case studies was presented in a similar format to that in Autoparts Ltd. A brief explanation of lean related concepts (where appropriate) was provided to assist employees to understand the interview questions. The interview guides can be found in Appendix 8. Table 4.8 summarises the frequency and duration of the interviews.

Table 4.8 The summary of semi-structured interviews in main case studies

Interviewees		Autoparts	Textile	Glass	Fasteners	Nailguns
The owner	Frequency*	1 time	2 times	1 time	1 time	2 times
	Duration**	1.5hours	1 hour	1.5hours	2 hours	1 hour
Senior managers	Number	4	2	3	3	3
	Frequency	1 time	2 times	2 times	2 times	1 time
	Duration	2 hours	1.5hours	1.5hours	1.5hours	1.5hours
Middle managers	Number	4	5	4	4	3
	Frequency	2 times	2 times	1 time	1 time	2 times
	Duration	1 hour	1.5hours	1 hour	1.5hours	1.5hours
Supervisors /operators	Number	14	14	15	12	15
	Frequency	1 time	1 time	1 time	1 time	1 time
	Duration	0.7hour	0.6 hour	0.7 hour	1 hour	0.8 hour
Consultants	Number	2	1	1	2	2
	Frequency	2 times	2 times	2 times	1 time	1 time
	Duration	1.5hours	2 hours	2hours	2 hours	2.5hours

Note: * “Frequency” means how many times the interviewee was interviewed; ** “Duration” means the average length of interview per time

Source: Developed by the researcher

One practical issue during the interview was where to interview the supervisors and operators (the senior and middle managers have their own offices). To deal with this, a small meeting room was used in each case to conduct the interviews. Most of the interviews were recorded by the use of an audio recorder with consent from interviewees and then transcribed (on the same day of the interviews). As the interviews sometimes could be interrupted by unexpected circumstances (e.g. phone calls) and interviewees may forget what they mentioned when answering previous interview questions, field notes which recorded the keywords of the interviewees’ answers were taken as a reminder. For those interviewees who felt uncomfortable with

the audio recorder, field notes were made during the interviews. As most interviews lasted more than one hour, snacks and soft drinks were prepared and provided to the interviewees by the researcher. A prize draw was also offered by the researcher in each client organisation to improve the employees' participation in the interviews.

Direct, non-participant observation was adopted in each case. The researcher was able to gain access to the project steering team meetings, training courses, shop floor, and offices in the client organisations. Table 4.9 summarises the number and places of observation in the main case studies. As discussed in section 4.5.3, one risk of direct observation is information overload. To deal with this issue, an observation guide was developed (see Appendix 9). Both the consultants and managers believed that the topics covered in the meetings and training courses were commercially sensitive, and therefore the researcher was not permitted to use a video camera in either meetings or training courses. Field notes were used to document the observations. A research diary was used to reflect on and document the researcher's data collection activities.

Table 4.9 The summary of the number of observation in the main case studies

Places	Autoparts	Textile	Glass	Fasteners	Nailguns
Project steering team meetings	7	9	5	6	5
Training courses	2	3	2	2	1
Shop floor/offices	3	2	3	2	2

Source: Developed by the researcher

Documentation is another important data collection method in this research. Prior to formally visiting each case company, an Internet search was conducted to find out the

background information of each case company. During the visit, the researcher gained access to most project related documents, including the project plan, the records of the activities and results in each project stage, project reports, consultants' reports and materials, and feedback from the training courses. A list of "must-have" documents (see Appendix 10) was developed to better guide the researcher's collection of relevant documents. Documents related to the case company were also obtained, including company annual reports, letters, brochures and policies and rules in each case company. Most of the project-related documents were electronically available while some company related documents were not. For the hard copies of the company related documents, they were scanned (with the permission of the managers) and then stored carefully in a password protected e-folder.

4.5.5 Research ethics

As argued by Punch (1998), ethical issues may occur at different stages of research including research design, negotiating access, collecting, storing, analysing and reporting the data. Drawing on Diener and Crandall's (1978) study, Bryman and Bell (2011) point out four types of ethical issues: harm to participants, lack of informed consent, invasion of privacy and deception.

Harm to participants relates to physical and mental harm to both the research subjects and the researcher. To minimise this issue, the identities and records of interviewees and case organisations should be confidentially maintained. This research complied with the university's ethical code and the information obtained from interviewees and

case organisations was used for academic study only. Prior to carrying out the case study, the research ethical approval was obtained from the university (see Appendix 11). Interviewees and case organisations were informed in advance that their specific information would be treated anonymously and kept confidential. In addition, the researcher's contact details were provided during the research enabling interviewees to contact the researcher for further information. Homan (1991) suggests using pseudonyms in the research to protect the anonymity of participants. Hence, in this research, the real names of the case companies and interviewees are not revealed. During the field work, the researcher's safety is another critical issue. In this research, the researcher's field work was also guided by the university's safety guidelines and meetings were held between the researcher and her supervisors regularly to ensure that the field work was conducted safely.

A lack of informed consent occurs when the participants are not given enough information about the research. To overcome this issue, in this research several initial contacts were made before the researcher formally entered the case companies and collected data. Detailed information, such as research aims, interview and observation guidelines, were provided during these contacts and thereby, the prospective participants could make their final decisions (i.e. whether or not to participate in this research) based on sufficient information. Consent was sought from all participants in the study and a copy of consent form can be found in Appendix 12.

Invasion of privacy links with the issue of informed consent because it is concerned with whether or not the participants have the right to refuse to answer any sensitive or

private question (sometimes it is difficult to predict which question may be sensitive or private to the specific participant). In this research, it was clearly stated in advance that interviewees held the right to refuse to answer any question during the interview and they also had the opportunity to withdraw at any time during the research.

Deception in the context of research means that the research is represented inconsistently with its actual content. To minimise deception in this research, the detailed information of research aims and methods was sent to the case organisations at the beginning. Presentations were also made to further explain the meaning of this research. The interviewees were given the opportunities to check their interview transcripts and the case report was also reviewed by senior managers and consultants.

4.5.6 Data analysis

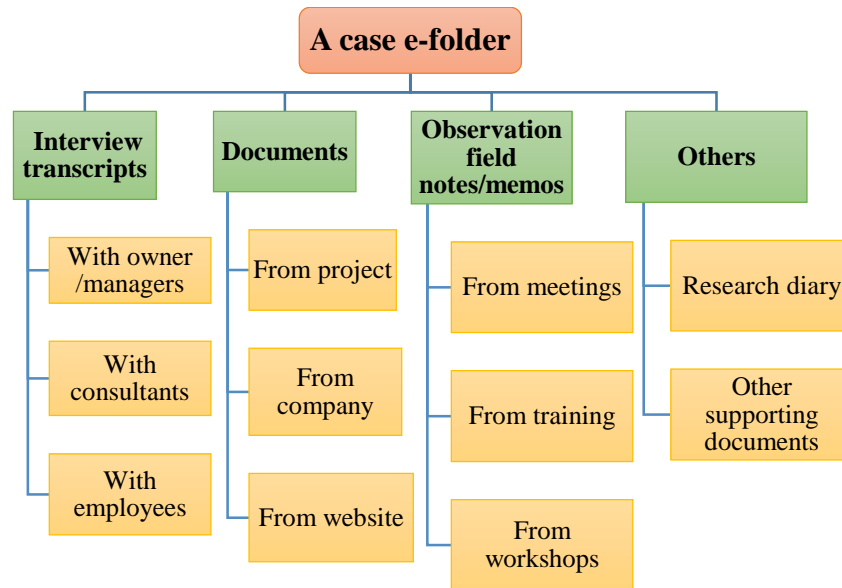
Prior to the formal analysis of the collected data, an important step - documentation - should be completed. According to Voss et al. (2002), documentation is a useful way to recall the data and assist further data analysis. Miles et al. (2013) agree that the collected data should be processed and well documented before data analysis. In this research, the documentation which was facilitated by Microsoft Office, which mainly included the following tasks:

- translating and transcribing the recorded interviews (both audio recorded interviews and handwritten notes);
- importing all of the field notes and memos;
- importing the research diary; and

- scanning and sorting out the project- and company-related documents.

To enhance the efficiency of data storage and retrieval, a password-protected e-folder was created for each case. Figure 4.1 shows the structure of the e-folder.

Figure 4.1 The structure of a case e-folder



Source: Developed by the researcher

After documenting the collected data, the next fundamental step of data analysis is coding (Miles and Huberman, 1994; Voss et al., 2002). A code can be defined as a word or short phrase that assigns the symbolic meaning to descriptive or inferential (language-based or visual) data (Miles et al., 2013; Saldana, 2013). According to Miles et al. (2013), coding enables researchers to find the most relevant data to the research questions or themes efficiently by categorising similar data chunks and deepening the understanding of the data's meaning.

The approach adopted in this research to code and analyse the transcribed data within each case is template analysis (also known as thematic coding) (King, 1998). Template analysis is a widely used qualitative data approach and its essence is using a list of codes (i.e. a template) representing themes identified from the textual data (King, 1998). While template analysis allows some codes to be defined prior to the data analysis, it also enables the researcher to modify the pre-defined codes and add new codes into the template during the process of data analysis (King, 1998). Using the research framework introduced in figure 3.2, the three overarching codes (or themes) adopted in the data analysis in each case were the consultant-client relationship, organisations' learning of lean practices and organisations' abandonment of existing practices. The themes repeatedly emerged in the interviews, direct observation and project documents (see Chapters 5 and 6) such as "evidence-based consulting practices" and "the impact of organisational size on the consulting practices" were categorised as the lower-order codes in relation to these three overarching codes.

The list of codes was reviewed and revised during the data analysis through performing three forms of modification: insertion (i.e. adding new codes to the initial template to represent the newly identified issue), deletion (i.e. deleting any unusable pre-defined code) and changing scope (i.e. refining the definition of the codes) (King, 1998). As noticed by Miles et al. (2013), many other codes may emerge during data collection. They contend that these emerging codes are "*better grounded empirically and are especially satisfying to the researcher who has uncovered an important local factor*" (Miles et al., 2013:81). It means that the researcher should be open to the empirical data rather than be restrained by the initial codes. In this research, the researcher acknowledged the importance of themes emerging from the field work. The

initial list of codes was revised several times during and after the pilot and main case studies. From this iterative process, some emerging codes were added into the list. For example, an unusual role of consultants (i.e. consultants acted as senior managers in their client organisations) was observed during main case studies. Instead of ignoring this phenomenon, the new code named “consultants in residence” was created to label it. A more detailed list of codes adopted in the data analysis can be found in Appendix 13.

To assist the case study analysis, the explanation building technique was used for explaining how the consultants and clients interact with each other across different stages of consultancy projects (see Chapter 5 and 6). The pattern-matching technique which aims to compare the empirical patterns with the predicted patterns (Yin, 2009:136) was also adopted. In this research, the use of pattern-matching technique (see Chapter 7) enabled the themes that emerged from the case studies (Chapters 5 and 6) to be compared with the conceptual ideas discussed in Chapters 2 and 3. For example, in Chapter 7, the clients’ view of their relationship with consultants was compared to the three models of the consultant-client relationship proposed by Nikolova and Devinney (2012).

Since the initial list of codes is needed to be reviewed and revised regularly, a practical issue occurred during the data analysis, that is, whether computer-assisted tools should be used. During the pilot study, the data were manually analysed since it only included one case and the amount of data was relatively small. However, because there are five consultancy projects in the main case studies, the qualitative data analysis software

NVivo is employed. The use of software facilitates the researcher to code, categorise, display and retrieve data efficiently and effectively.

In addition to analysing data within each individual case, cross-case analysis was conducted. According to Eisenhardt (1989), people are not good processors of information as they are more likely to be influenced by some specific respondents or vivid images. The risk is that researchers “*reach premature and even false conclusion as a result of information-processing biases*” (Eisenhardt, 1989:540). Cross-case analysis attempts to deal with this issue through viewing the collected data from different lenses (Voss et al., 2002). In other words, researchers should not be constrained by the initial impressions of the data and they are actually encouraged to use a range of structured and diverse lenses (Eisenhardt, 1989). In this research, the five cases can be broadly categorised into two groups based on the roles of consultants in decision-making. Word tables were developed to display the data from these two groups of cases in relation to the three overarching themes. Similarities and differences were addressed within each group of cases and between groups. To enhance the validity of case analysis, several meetings were held between the researcher and her supervisors. The researcher also presented the case findings to practitioners (including the senior managers and consultants who involved in this study) and scholars at other meetings and conferences. This feedback facilitated the researcher to enhance the robustness of these case studies.

4.5.7 Validity and reliability of case study research

Yin (2009) identifies four tests that are commonly employed to evaluate the quality of case study research, including construct validity, internal validity, external validity and reliability. Table 4.10 summarises the tactics adopted to control validity, and reliability in this research. Construct validity concerns identifying and using correct operational measures in the case study research. It is argued that case study investigators are more likely to use subjective judgements during data collection if they are unable to establish operational measures of the studied concept (Yin, 2009). To enhance the construct validity in this research, multiple data sources were adopted and triangulated, including data from interviews, direct observation, and documentation. The chain of evidence was developed with the support from PhD supervisors, managers and consultants. Key informants, including senior managers and consultants, were also invited to check the summary of the interviews and the case report.

Internal validity concerns the accuracy of the casual relationships addressed in the case study research. It is not unusual that the causal relationships in case study research are inferred based on interviews or documents rather than direct observations. Hence, it is important to ensure that the inference is correct and valid. In this research, multiple techniques were employed during data analysis such as coding, within- and cross-case analyses. Explanations were built gradually and carefully through pilot and main case studies. Multiple perspectives from managers, employees and consultants were considered to ensure that the casual relationships reflected the consensus between different stakeholders.

External validity refers to the extent the findings from case study research can be generalised. As discussed in section 4.5.1, case study research focuses on analytic generalisation rather than statistical generalisation. Yin (2009) suggests that analytic generalisation can be achieved by using replication logic in multiple case studies. In this research, five consultancy projects undertaken in five Chinese SMEs were investigated and theoretical replication was applied when selecting cases (i.e. “consultants in residence” versus “consultants as external advisors”).

The final test is reliability which means that the same findings or conclusions should be reached by other researchers if they repeat the same procedures described by the earlier researchers in the same case (Yin, 2009). Hence, the procedures of case study research should be well documented and developed. In this research, the case study protocol was developed including research aims, case selection criteria, data collection methods, analysis methods, and interview and observation guidelines. It was discussed with PhD supervisors and then piloted in the initial case study. Case e-folders were created to enrich the case study databases. Research diary, documented interview and observation data, and supporting documents were included in each case e-folder.

Table 4.10 The summary of tactics adopted to control validity and reliability

Tests	Tactics	Tactics in this research
Construct Validity	<p>Use multiple data sources</p> <p>Establish chain of evidence</p> <p>Have key informants review draft case study report</p>	<ul style="list-style-type: none"> • Semi-structured interviews • Direct observation of meetings, training courses, working places • Project-related documents • Company-related documents • Company websites • PhD supervisors, senior managers from case companies and senior consultants from consulting company reviewed and evaluated the research questions, data collection methods and case study reports. • The logic and content of the findings were examined and confirmed during meetings. • The summary of interviews was checked by senior managers and consultants. • The case study report was examined and confirmed by the managers from case companies and consulting company.
Internal validity	<p>Pattern matching</p> <p>Explanation building</p>	<ul style="list-style-type: none"> • Pattern matching was conducted by within- and cross-case analyses. • Explanations of the consultancy projects were built gradually through pilot case study and main case studies. • Results were presented and published in the conferences and journal for feedback.
External validity	<p>Use replication logic in multiple case studies</p>	<ul style="list-style-type: none"> • Five consultancy projects undertaken in five Chinese SMEs were investigated. • Theoretical replication were adopted during the process of case selection.
Reliability	<p>Use case study protocol</p> <p>Develop case study database</p>	<ul style="list-style-type: none"> • A case study protocol was developed including research aims, case selection criteria, data collection methods, analysis methods, and interview and observation guidelines. • The protocol was discussed with supervisors and practitioners and piloted in the pilot case study. • Case e-folders were developed including research diary, documented interview and observation data and supporting documents.

Source: Adapted from Yin (2009:41)

4.6 Conclusion and relevance to the thesis

This chapter has reviewed and discussed the research methodology and design underpinning this research. Following a brief discussion of the ontological and epistemological assumptions of different philosophical stances, a realist approach was justified as the philosophical stance in this research. The need for different types of triangulation was also addressed in the third section.

To make an informed choice of research strategy and design, the research methods applied by previous studies in management consultancy were also reviewed. It was found that most of them overly relied on a single method (i.e. interview) and there was a need to conduct more in-depth case studies in this area. Considering the nature of the research aim and questions, multiple case studies were selected as the appropriate research method for this research. Purposive and theoretical replication logic was applied during case selection. Data collection methods including semi-structured interviews, direct and non-participant observation, and documentation were employed in both the pilot study and main case studies. Summaries of ethical issues and validity and reliability in case study research were also provided. The next chapter reports on the preliminary results from the pilot case study. A reflection of the methodological issues will also be presented.

CHAPTER 5 PILOT STUDY

Chapter 5 Pilot Study

5.1 Chapter Introduction

This chapter analyses and presents the results from the pilot case study. This pilot case study facilitates the researcher to establish some initial theoretical propositions and to gain a more in-depth understanding of the consulting practices. It also provides an opportunity to test and improve the design of the data collection and analysis methods used in this research.

This chapter includes another five sections. The first section reviews the research methods adopted in this pilot study. The second section presents the preliminary results. On the basis of the consultancy project stages in the case company, it is further divided into three sub-sections, including the initial contact stage, the preparation stage, and the (early) implementation stage. These preliminary results are linked to the research framework and discussed in the third section. Section four reflects on the research methods of the pilot case study and identifies several methodological issues. To improve the research design in the main case studies, relevant solutions are provided. A conclusion is provided in the final section.

5.2 Pilot Methodology

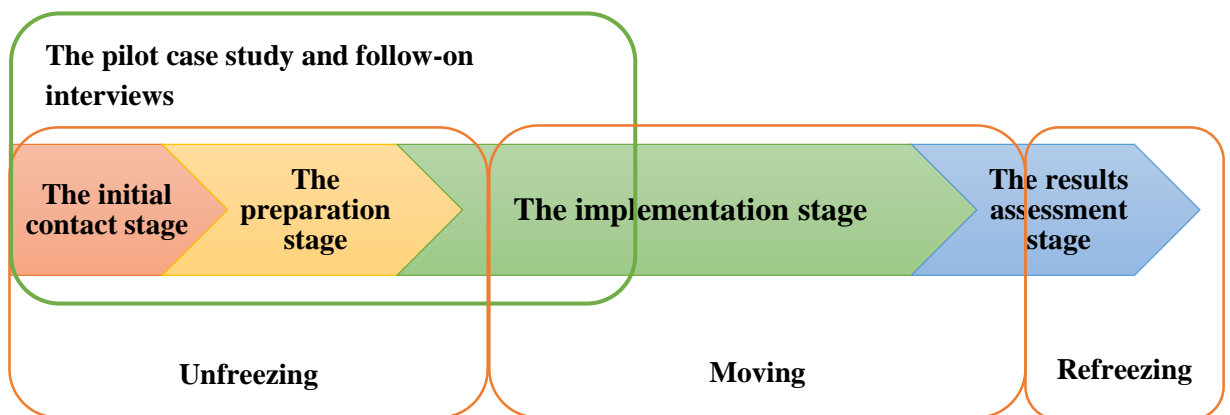
Prior to conducting the main case studies, a three-month pilot case study was carried out. This pilot case study aimed to develop the initial theoretical propositions of the research, and to detect any potential issues of the pre-designed research methods. Yin (2009) suggests that the main criteria for selecting a pilot case are convenience, access and geographical proximity because these enable researchers to build a less structured and more prolonged relationship with the pilot case company. Autoparts Ltd was chosen as the appropriate pilot case company since it was the first company that agreed to offer the level of access required for this study. Since the lean improvement project in Autoparts Ltd started in early 2012, Autoparts Ltd was at its early stage of learning and implementing lean practices during the researcher's period of field work.

To collect the relevant data from the pilot case, several research instruments were employed including interviewing consultants, the owner, senior and middle managers, and employees, observing meetings and training courses, and obtaining project and company related documents. More detailed discussions of the data collection methods in the pilot case study can be found in Chapter 4 (section 4.5.4). In addition to the field work, subsequent interviews were undertaken with the consultants and managers to help the researcher keep up-to-date with the lean improvement project whilst writing up the preliminary results and to validate these results.

5.3 Results from the Pilot Study

From the analysis of the interviews with two consultants and three senior managers, and the project documents (e.g. project plan, minutes of meetings and progress reports), four stages of a lean improvement project have been identified: 1) initial contact stage, 2) preparation stage, 3) implementation stage, and 4) results assessment stage. This section reports and discusses the preliminary results from the pilot case study between the initial contact stage and (early) implementation stage (see figure 5.1). At each stage, the key themes were analysed and discussed in relation to the three overarching themes (i.e. the consultant-client relationship, organisations' abandonment of existing practices and organisations' learning of lean practices), where possible.

Figure 5.1 The scope of the pilot case study



Source: Developed by the researcher

5.3.1 The initial contact stage

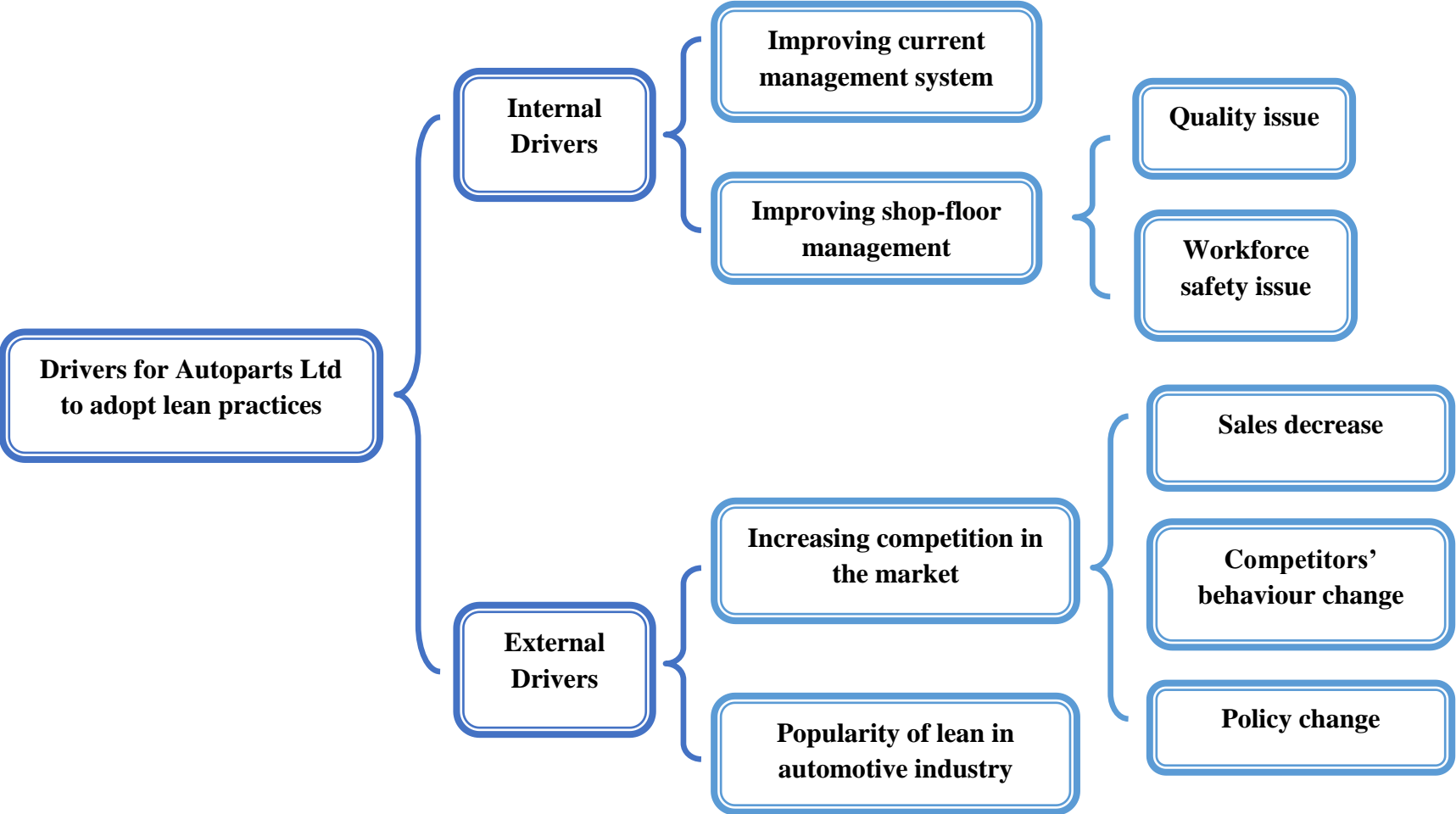
The interviews with the consultants, owner and senior managers, and the minutes of meetings (taken by the consultants) showed that there were two main consulting activities at this stage:

- gaining an initial understanding of the Autoparts Ltd 's context; and,
- convincing the key client in Autoparts Ltd to accept ZQ Consulting Company's service.

5.3.1.1 Gaining an initial understanding of the Autoparts Ltd's context

From the owner and senior managers' point of view, they required the consultants to conduct a lean improvement project because they faced some internal and external pressures (see figure 5.2). Internally, the Autoparts Ltd faced pressure from inefficiency on the shop floor, with quality and workforce safety issues being a particular concern. The general manager reported that the first pass yield was lower than 98%, and this increased the production cost. Both the owner and general manager pointed out that they had experienced two serious safety incidents on the shop floor during 2011, which negatively impacted on the reputation of Autoparts Ltd and the employees' family life. Another pressure encountered by Autoparts Ltd was the disorganisation of its current management process. Both the general manager and the deputy general managers argued that the current management process was informal and inefficient because the operators, supervisors, and middle managers seemed unclear about their job responsibilities and the operation's procedures.

Figure 5.2 Internal and external drivers for Autoparts Ltd to adopt lean practices



Source: Developed by the researcher

The pressure from the automotive market place and their competitors after the financial crisis occurred between 2007 and 2008 actually drove the owner and senior managers in Autoparts Ltd to consider improving their internal management processes. The owner said that competition among suppliers became more serious after the financial crisis because at that time the automotive market was shrinking. One deputy general manager mentioned that the sales in 2011 declined by 30% in comparison to the average sales between 2004 and 2008. The owner and senior managers also noticed that the company's direct competitors began to change their behaviour by reducing prices or improving the quality of their products to attract and retain customers.

In addition to the pressure from competitors, policy change was another issue for Autoparts Ltd. The owner pointed out that some preferential policies issued by the government to stimulate the domestic automotive market expired at the end of 2010. He was concerned that the market may continue to shrink and that the competition may be fiercer. In this case, if the company could not enhance its current operations and management systems, it may be surpassed by its competitors. Given the popularity of lean implementation in the automotive industry (both the owner and the senior managers mentioned that Lean is a popular concept in the automotive industry and that many large car manufacturers, such as Toyota and Volkswagen, have implemented lean practices), the owner and senior managers expected to adopt lean practices to improve their performance.

Since the owner and senior managers previously received training on only one lean practice – 6S in their last unsuccessful consultancy project, they felt that they did not

have the internal expertise to conduct the lean improvement project. There was a need to hire consultants who were more experienced and professional to carry out the lean improvement project in Autoparts Ltd. Due to the disappointing experience of the last consultancy project, the owner also emphasised that this time he would like to choose a more reputable and well-known consulting company, such as ZQ Consulting Company. The owner expected the consultants to act as experts who could provide suggestions and training when implementing the lean improvement project.

Although the owner and senior managers introduced the pressures faced by Autoparts Ltd during the meetings, the consultants argued that the availability of its background information was quite low at this stage. For example, Autoparts Ltd did not have its own company website (it only advertised its products on other trading websites) and there was no hard copy or e-copy of company introductory documents (e.g. booklet of company introduction or PPT slides for introducing products) provided by the owner or senior managers. Interestingly, the consultants' argument was reflected by the interviews with the owner and senior managers. When asked whether they provided any introductory document for the consultants at the initial stage, none of them answered "yes". They admitted that they did have some introductory documents, such as the booklet of company introduction and PowerPoint Slides for the products. They also believed that it was somewhat meaningless to show these documents to the consultants as they were too old and outdated (i.e. most of them were documented before 2009) and some information related to the production lines and operations management was not consistent with Autoparts Ltd's status quo. In this case, the consultants gained information about the company's background mainly through oral communications with the owner and senior managers during their meetings. The

senior consultant reported that normally he would like to prepare some questions related to the company's background prior to the meetings to ensure that the most important company information would not be missed. The junior consultant who was responsible for writing up the minutes of the meetings needed to sort out the most useful company information from all of the recorded conversations.

5.3.1.2 Convincing the key client to accept ZQ Consulting Company's service

It is worth noting that, although both the owner and senior managers (i.e. the general manager and two deputy general managers) were involved in the meetings held at the ZQ Consulting Company at the initial contact stage, the owner was identified as the key client by the consultants as he was the only decision-maker in terms of whether the lean improvement project should be carried out with the ZQ Consulting Company. The interviews with the senior managers confirmed the above perspective as both the general manager and deputy general managers mentioned that their role at the initial contact stage was more advisory rather than decisive.

Compared to the senior managers who had opportunities to directly communicate with the consultants, the other employees (such as middle managers, supervisors and operators) were not formally involved in the initial contact stage. While two of the interviewed middle managers (i.e. operations manager and one workshop director) were able to gather initial information of the project through informal discussions with deputy general managers, the supervisors and operators were not aware of this until the consultants came into the company.

As the owner was viewed as the key client at this stage, the consultants highlighted that the key task was to “*let him believe that we could do the job he required and we could do it well*” (The senior consultant, ZQ Consulting Company). To convince the owner, the consultants actively organised the positive evidence they had and delivered this through a formal presentation at the first meeting. The PowerPoint Slides used in the presentation showed that the consulting company’s success and the consultant’s (i.e. the senior consultant) success were emphasised. The junior consultant who acted as the assistant to the senior consultant stressed that the most relevant typical and successful cases (e.g. projects in the similar industry or sector) should be included in the presentation to show the overall expertise of the consulting company. In addition, the background of the consultants (such as educational level, work experience, qualifications and most importantly the successful projects completed by this consultant) should also be included at the end of the presentation to show their expertise.

While the junior consultant created an overall positive image of the consulting company and the consultants, the senior consultant highlighted that more specific evidence should be used to convince the owner. For example, from the discussions at the beginning of the meeting, the senior consultant realised that the owner was dissatisfied with the previous consulting practices conducted by the HE Consulting Company. He orally added and emphasised other evidence (e.g. more comprehensive training courses about lean practices supplied by ZQ Consulting Company) to show the advantage or uniqueness possessed by the ZQ Consulting Company during the presentation.

When the owner was asked for his feedback on the presentation, he answered that ZQ Consulting Company was professional in conducting lean improvement projects because it had a rich experience of doing similar projects in other companies (though not in the similar companies as the Autoparts Ltd) and the example projects described by the senior consultant in the initial presentation were “*very impressive*” as it considered lean implementation from “*many aspects*”.

5.3.1.3 Key themes identified

Table 5.1 summarises the key themes identified from the initial contact stage.

Table 5.1 Key themes identified at the initial contact stage

No.	Key themes
1.	Drivers for client organisations to depart from status quo and adopt lean practices.
2.	The clients’ view: the expert perspective of the role of consultants.
3.	Evidence-based consulting practices.
4.	The impact of organisational size on the consulting practices at the initial contact stage.

Note: no priority is implied by the order in which these themes are presented

Source: Developed by the researcher

1. Drivers for client organisations to depart from status quo and adopt lean practices

Deciding to change the current performance by adopting lean practices was not easy for the owner and senior managers in Autoparts Ltd. This was triggered by both internal and external pressures faced by the company. The disorganisation of the company’s internal management system and shop floor management negatively impacted on its operation’s efficiency and effectiveness (e.g. quality and safety issues). However, the owner and senior managers began to realise the seriousness of the

inefficiency in their operations because the whole automotive market was shrinking considerably after the financial crisis. Their competitors were changing their behaviour (e.g. reducing price or improving their internal management) to retain and win customers. It forced the owner and senior managers in Autoparts Ltd to consider the improvement of their status quo. Since Lean is a popular concept in the automotive industry, and has been successfully adopted by many large car manufacturers, the owner and senior managers decided that they should also adopt it.

2. The clients' view: the expert perspective on the consultant's role

When asked why the company decided to hire consultants, the responses from the owner and senior managers reflected on the expertise of the consultants. They recognised that the company lacked a sufficient knowledge base to carry out the lean improvement project. They believed the consultants were experts and professionals who possessed experience and knowledge of lean implementation that they did not possess themselves and, naturally, they expected to obtain this lean-related knowledge and experience during the project.

3. Evidence-based consulting practices

To show their expertise and success, it was important for the consultants to provide relevant evidence during the initial contact meetings. While some of the evidence was more generic and linked to the overall success of the company or the consultants, more specific evidence (adapted to the Autoparts Ltd's past experience of the consulting project) was also offered by the senior consultant. In addition, while evidence that was visible to the owner and senior managers (such as the awards and qualification

received by the consulting company and consultants) was reported during the meetings, invisible evidence (such as the vision and prediction for the future success of the lean improvement project) was also presented.

4. The impact of organisational size on the consulting practices at the initial contact stage

The consultants realised that they needed to adapt their practices to the characteristics of Autoparts Ltd. As an SME, the decision-making process was highly centralised in Autoparts Ltd because the owner was the only decision-maker at the initial contact stage. In this case, the owner was identified as the key client by the consultants. Although the senior managers were also involved in the initial contact meetings, they only played an advisory role. The other middle managers and employees were excluded at this stage. Moreover, given the low level of the availability of up-to-date documents from Autoparts Ltd, it was difficult for the consultants to obtain sufficient background information. To enhance their initial understanding of Autoparts Ltd, the consultants had to rely on oral communication (such as talking with or directly asking the owner and senior managers) and to refine the useful information from these talks.

5.3.2 The preparation stage

Since the owner decided to employ the ZQ Consulting Company to support the company to conduct the lean improvement project, the project moved to the preparation stage. At this stage, another three consulting activities were identified:

- gaining a more in-depth understanding of Autoparts Ltd 's context;
- making a project plan; and,
- convincing the key client to accept the plan.

5.3.2.1 Gaining a more in-depth understanding of Autoparts Ltd's context

Unlike the initial contact stage where the meetings between the owner and senior managers were held in the offices of ZQ Consulting Company, the consultants conducted a one-week visit to the Autoparts Ltd during the preparation stage. According to the interviews with the consultants and the project plan, multiple methods were adopted by the consultants to collect the contextual information of Autoparts Ltd and some middle managers and operators were involved in this information collection process (see table 5.2).

Table 5.2 Methods adopted by the consultants to collect the contextual information

Methods	Data sources
Interviews	The owner, senior managers, operations manager, workshop directors and supervisors.
Direct observation	Four workshops and the warehouse.
Company documents/archives	Annual reports, financial reports, instructions of operations processes, records of quality inspection, safety management, warehouse management, equipment management and performance assessment.

Source: Developed by the researcher

The consultants argued that given the low availability and quality of the collected company documents, as well as the standardisation of Autoparts Ltd's current management and operations processes, it was impossible to exclude the middle managers or supervisors. For example, the senior consultant argued that the latest version of the operations procedures was printed two years ago and there were no up-to-date documented operations procedures available. In this case, it was important to directly communicate with middle managers (such as operations manager and workshop directors) who were familiar with the operations and management processes to validate the collected company documents. The junior consultant confirmed the senior consultant's argument by stating that they needed to rely on the operations manager and workshop directors' oral explanations and observations to facilitate their understanding of the status quo.

Jargon and technical language associated with auto parts manufacturing were frequently used during consultants' communications with middle managers and supervisors. The consultants who did not have work experience in the area of autoparts manufacturing process needed to spend more time in keeping records of the orally mentioned procedures and frequently checking the interpretation of jargon with middle managers, such as operations manager and workshop directors.

5.3.2.2 Making a project plan

After investigation the status quo of Autoparts Ltd, the consultants began to make the project plan. Three discussion meetings were held by the consultants to communicate the key tasks in the project plan to the middle managers. While asking who actually played a more dominant role during this plan-making process, both consultants and managers agreed that the project plan was developed jointly. From the consultants' perspective, they needed suggestions from the managers, particularly middle managers' (i.e. operations manager, warehouse manager, four workshop directors), to further test the feasibility of their plan because the lean improvement project included operational level change. The inclusion of the middle managers' suggestions would improve the validity of the plan because it demonstrated to the owner that the plan reflected on the practical thoughts from both middle managers and consultants rather than being based solely on the consultants' ideals and wishful thinking.

From the middle managers' perspective, most of them mentioned that it was difficult to distinguish who actually dominated the plan-making process. They agreed that the discussion meetings during the plan-making process held by the consultants were useful because it offered opportunities to get general information about the project (e.g. what the project was about, what tasks were included and how long it might take) and they could provide suggestions or explain the problems that they had.

5.3.2.3 Convincing the key client to accept the plan

Although the owner, senior managers, middle managers, and supervisors were involved in the preparation stage, the consultants still view the owner as the key client. The consultants pointed out that they could not formally carry out the lean improvement project in Autoparts Ltd unless the owner (rather than other senior managers) approved the project plan. Both the senior managers and middle managers agreed that they did not have the authority to approve the project plan as it related to the payment of consultancy fees and other associated costs, which were directly controlled by the owner himself. Hence, it was crucial for the consultants to convince the owner to approve the project plan.

An examination of the project plan found that the consultants highlighted its validity by showing that the plan was developed based on the owner's requirement and linked to the status quo of Autoparts Ltd. Table 5.3 summarises the evidence used by the consultants at different sections of the plan. To show how the project plan related to the current performance of Autoparts Ltd, the results from the interviews with managers and supervisors, as well as the observation of the shop floor, were included in the project plan as evidence to highlight the problems of (and their negative impacts on) Autoparts Ltd's internal management and operations processes. While specific examples were provided by the consultants in the section named "description of the problems", the descriptions in the "key tasks/solutions in the project" section were more flexible and general. The senior consultant who finalised the project plan contended that this was because the key tasks may be subject to change based on the actual situations at the implementation stage.

Table 5.3 The evidence used by the consultants at different sections of the plan

Section of the plan	Evidence
Project background	<ul style="list-style-type: none"> • A summary of the internal and external pressures presented <i>by the owner and senior managers</i> at the initial contact stage.
The owner's requirement	<ul style="list-style-type: none"> • A re-emphasis on <i>the owner's</i> requirement: Improving the internal management and operations processes by the adoption of <i>lean practices</i>.
Description of problems	<ul style="list-style-type: none"> • An emphasis on the <i>connection</i> between the collection of the company information and the owner's requirement. • An emphasis on the <i>quality</i> of information collection process: <ul style="list-style-type: none"> ○ Involving middle managers and supervisors to gain a better understanding of the status quo; and, ○ The use of multiple methods to collect information. • A more specific description of the problems based on <i>the owner's</i> requirement and the collected information: <ul style="list-style-type: none"> ○ Organisational level: lack of standard and effective management process and performance assessment method; and, ○ Operational level: lack of standard operating procedure, disorganisation of shop-floor and warehouse management, lack of quality control process.
Key solutions/tasks should be included in the project.	<ul style="list-style-type: none"> • An emphasis on <i>lean</i> related terms (e.g. 6S, visual management, standard work).

Source: Adapted from ZQ Consulting Company (2012)

The owner's attitudes towards the project plan were very positive. During the interview, he mentioned that he directly approved the plan and signed the contract without asking for a revision of the plan. He believed that the project plan was consistent with the requirements that he presented at the initial contact stage and it was professionally developed based on the consultants' careful investigation of the status quo in the Autoparts Ltd.

5.3.2.4 Key themes identified

Table 5.4 summarises the key themes identified from the initial contact stage.

Table 5.4 Key themes identified at the preparation stage

No.	Key themes
1.	Consultants' development of the contextual knowledge of Autoparts Ltd.
2.	The co-development of a plan.
3.	Evidence-based consulting practices.
4.	The impact of organisational size on the consulting practices at the preparation stage.

Note: No priority is implied by the order in which these themes are presented

Source: Developed by the researcher

1. Consultants' development of the contextual knowledge of Autoparts Ltd

Since the consultants obtained limited background information of Autoparts Ltd at the initial contact stage, they attempted to gain a more in-depth understanding of the company context at the preparation stage through the use of multiple information collection methods, including interviews, direct observation, and documentation. Some middle managers and supervisors who were familiar with the daily operations in Autoparts Ltd were involved in this stage because the consultants expected to obtain more up-to-date contextual information from them. However, the consultants encountered difficulties understanding the language (i.e. technical language) that was frequently used by the middle managers and supervisors because they lack relevant experience working in similar auto parts manufacturing companies.

2. The co-development of a plan

Interestingly, although the project plan was drafted and written by the consultants, they did not view themselves as dominant players during the plan-making process. Instead, the middle managers' involvement in the plan-making process was acknowledged by the consultants and, similarly, the middle managers also believed that they co-developed the plan with the consultants through their discussions of the key tasks included in the plan.

3. Evidence-based consulting practice

Since the consultants could not formally start the lean improvement project with Autoparts Ltd without an approved project plan, it was important for the consultants to show the quality of the project plan when submitting it to the owner. Compared to the initial contact stage, specific evidence which linked to the owner's requirement and the status quo of Autoparts Ltd (e.g. activities undertaken by the consultants during information collection process, the connection between the project plan and the owner's requirement) was preferred by the consultants.

4. The impact of organisational size on the consulting practices at the preparation stage

The owner was still viewed as the key client by the consultants. As discussed in the initial contact stage, in SMEs, such as Autoparts Ltd, the owner plays a central role in the decision-making process and the consultants relied on the owner's approval to carry on the project. In this case, convincing the owner to accept the project plan became an essential issue for the consultants. However, it was insufficient for the

consultants to obtain the contextual and organisation-specific knowledge in Autoparts Ltd by solely involving the owner. Due to the low availability and quality of the documents, as well as low level of the standardisation of daily operations in Autoparts Ltd, middle managers and supervisors who were familiar with the current operations and shop floor management should also be involved.

5.3.3 The (early) implementation stage

After the owner approved the plan and formally signed the contract, the project began to move towards the implementation stage. This stage covered three consulting activities:

- building the project steering team;
- carrying out the lean improvement project; and,
- negotiating the project plan.

5.3.3.1 Building the project steering team

The project steering team in Autoparts Ltd mainly consisted of the two consultants and three senior managers (i.e. the general manager and two deputy general managers), and the operations manager. This team was responsible for promoting the lean improvement project within Autoparts Ltd, making and approving policies and rules, organising learning activities, and monitoring the overall progress of the lean improvement project. During the interviews, both the senior managers and consultants mentioned that the overall aim of the project steering team was to ensure that the lean improvement project could be carried out efficiently and effectively.

The managers' perspective of the role of the consultants and their own role in the team

The consultants were viewed by the senior managers and the operations manager as the experts who could provide professional suggestions and training to managers and employees. From the managers' perspective, the consultants' overall role was to give advice. The advice given by the consultants should be decided by the managers in the project steering team. Through interviewing managers, it was found that the general manager was viewed as the decision maker by other senior managers and the operations manager in the steering team because he made the decisions in terms of adopting the consultants' suggestions.

The consultants' perspective of the role of managers and their own role in the team

When interviewing the two consultants, they agreed that, in most cases, they played an advisory role. They provided specific suggestions or guidelines related to tasks in the lean improvement project to managers in the team and their suggestions would then be discussed in the team meetings. The consultants believed that it was the managers' responsibility to decide whether the suggestions should be implemented. They also argued, however, that they were forced to play a more decisive role when the managers felt that the tasks were beyond their knowledge base or capabilities. The example given by the consultants was the decision on training course. The consultants felt that they needed to make decisions on the structure and content of the training course. The observation of the team meetings confirmed the consultants' argument. For example, during one of the team meetings, the general manager asked the consultants to directly decide what to teach and how to teach as he (as well as other

senior managers) did not have many opportunities to attend or deliver training courses in the past and they lacked experience of being trained or providing training.

The owner and the project steering team

The owner was not directly involved in the project steering team. However, from the consultants' perspective, the owner's role should not be underestimated as he still acted as the "*big boss*" (the term used by the senior consultant). The consultants were required to submit a monthly progress report to the owner. The report needed to include at least three sections, as follows: 1) what has been done or achieved; 2) what is being done now; and, 3) what will be done during the next month. The owner was expected to sign his name at the end to indicate his approval of this report. If the consultants did not get his approval, then it meant that they "*did not do a good job*" and might not "*get the rest of the consulting fee*" (the senior consultant, ZQ Consulting Company). Hence, the consultants acknowledged that it was important to show a positive image of the project progress with a detailed summary of their achievements and activities. Even if the actual progress lagged behind the pre-developed project plan, the consultants believed that there was still a need for them to show their effort to overcome the difficulties to the owner and include the potential achievements in the near future.

In addition, during the interview, both the general and deputy general managers reported that the owner in Autoparts Ltd kept a tight control over the activities related to financial management (i.e. paying fees and other costs associated with the project)

and change of steering team. Hence, the general manager said that he needed to report to the owner and wait for his decision when the tasks in the project were related to the above activities. Table 5.5 provides a summary of the roles of managers and the consultants in the project steering team and the role of owner.

Table 5.5 The roles of the owner, managers and consultants

Roles	Managers' perspective	Consultants' perspective
<i>Consultants</i> as advisors and experts	√	√ (but the consultants argued that sometimes they needed to play a more decisive role)
<i>General manager</i> as decision maker in the project steering team	√ (but the general manager needed to report to the owner if the decisions related to financial management)	√
<i>The owner</i> as the “big boss” who can control the consultants and general manager in the project	√	√

Source: Developed by the researcher

5.3.3.2 Carrying out the lean improvement project

Although Autoparts Ltd had some experience of implementing one lean practice - 6S during the last consultancy project, the interviews with the owner, managers, and employees showed that they were still unfamiliar with the terms and practices of Lean Production. Table 5.6 summarises the owner and employees' knowledge base of lean implementation.

Table 5.6 The owner and employees' knowledge base of lean practices in Autoparts Ltd.

Interviewees	Knowledge base of lean practices
The owner	Attended some 6S-related training courses. Unfamiliar with other lean practices.
Senior managers	See above
Middle managers	Attended just one or two training course of 6S. Some of them had forgotten the detailed content of these courses.
Supervisors and operators	Did not attend the training course. Just heard of 6S from other colleagues but unfamiliar with its detailed content.

Source: Developed by the researcher

As most managers and employees in Autoparts Ltd lacked a knowledge of lean practices, training became an important part in the lean improvement project. During the time of undertaking this pilot case study, three training courses were delivered to the managers and employees: 1) an introduction to lean implementation, 2) job responsibility, and 3) 6S.

Training courses 1 and 2

The first training course was an introduction to the lean improvement project (e.g. changes at organisational and operational levels) and the practices (e.g. 6S, visual management, and standard work) that may be launched during the project. The observation of the training course showed that it was delivered in a unidirectional way. The senior consultant acted as the presenter who stood in front of the meeting room and explained the main tasks included in the project plan. The owner, senior managers, middle managers (including workshop directors), and supervisors acted as the “students” who sat in their chairs and listened to the consultant’s presentation. By observing the training course and analysing the training materials used by the consultants, it was found that instead of solely using texts, some photos from ZQ Consulting Company’s previous projects were used frequently to show the benefits of adopting lean practices. Photos taken from the shop floor were used to illustrate the gap between the current state in Autoparts Ltd and other companies who have adopted lean practices.

During the interviews, both positive and negative perspectives on the first training course from managers and employees were found. On the positive side, the owner, and the interviewed managers and supervisors mentioned that this training course broadened their horizon by introducing the new ideas and concepts (i.e. different lean practices), and showing improvement practices undertaken by other companies. They also agreed that it was very impressive to compare between the current state in their company and other companies through the use of photos. On the negative side, some middle managers (i.e. two workshop directors) and supervisors mentioned that it was

difficult for them to understand some abstract terms associated with the organisational level changes, such as job responsibility.

The topic in the second training course was more specific as it focused on the design of job responsibility. Since management and operations processes in Autoparts Ltd were very informal, the consultants attempted to enable managers and employees to understand the importance of standardising their job responsibilities. Like the first training course, the observation of this training course showed that it was delivered in a unidirectional manner. The senior consultant spent more than 60% of the total training time introducing and explaining some conceptual terms, such as management layers in the organisation, types of organisational structure and elements of job descriptions. Unlike the first training course, which included photos, there was only one simulated case example in the second training course. During the interviews, many negative responses were received. Approximately 80% of the interviewed middle managers and supervisors complained that the training course was boring, disappointing, and irrelevant to their daily work. They pointed out that they could not completely understand the concepts introduced by the consultant because the consultant's language was too abstract.

Changing the training approach

Both the senior and middle managers pointed out that the consultants' lack of contextual knowledge of Autoparts Ltd was a critical issue during training. The operations manager argued that the consultants failed to link the concepts to the actual

situation in the company. He believed that it was insufficient to solely introduce some concepts because he and his colleagues wanted to know what these concepts meant to Autoparts Ltd and how these concepts may affect their daily work.

Due to a large number of negative responses received from the second training course, the consultants recognised that there was a need to change the current training materials and approach. The new approach required both the consultants and middle managers to act as trainers. The consultants were mainly responsible for training the middle managers. The middle managers then delivered the training course to the supervisors or other employees.

Training course 3 – train the trainer

During the interviews, both the senior consultant and the operations manager provided positive viewpoints of the new approach. From the senior consultant's perspective, the new approach provided an opportunity for him to know the details of the operations on the shop floor and build mutual understanding of 6S with the operations manager. From the operations manager's perspective, although he felt a bit stressful and uncomfortable at the beginning, he found that the new approach enabled him to use the practices and common language on the shop floor to replace the conceptual and abstract terms mentioned by the consultants.

It was observed that the content of the third training course was adapted to Autoparts Ltd. Most of the examples presented in the training material came directly from

Autoparts Ltd's daily operations, including the messy workstations and the serious safety accidents that had occurred in the past. Many pictures of their current workstations were included in the material to illustrate the meaning and importance of using 6S in their workshops. Compared to the second training course, the workshop directors and supervisors became more active during the training course. It was observed that some of them provided their perspectives of how to lean and re-organise their workstations. Particularly, when the training course focused on safety, many of them discussed the potential safety risks at their workstations. The feedback from the third training course was generally positive. Most of the interviewed workshop directors and supervisors responded that they could easily understand the content of the training course because it was linked closely to their daily work. Others maintained that the materials used in the training courses could be more practical in the future.

Changing the rules and policies

In addition to training, Autoparts Ltd's rules and policies associated with employees' job responsibility and performance assessment started to be changed. The consultants were expected to propose and draft new rules and policies. These were then discussed by the project steering team and the decision (i.e. approval, submission to the owner for his decision, or revision) would be made after the discussion.

During the interviews, the consultants contended that drafting rules and policies were more than staying in the office and sorting out documents. They argued that due to the low availability and quality of the formal documents, as well as low standardisation

of operations processes in Autoparts Ltd, there was a need to communicate with middle managers or supervisors to gain more specific information of the shop floor management.

For safety purposes, the consultants must ask for the workshop directors' permission and be guided by workshop directors or other employees. In this sense, the workshop directors acted as the internal gatekeepers and the senior consultant described the workshop directors as the "*key*" to open the "*doors of the shop floor*". Given the simple and flat organisational structure in Autoparts Ltd (i.e. four management layers: the owner, senior managers, middle managers and employees), the consultants said that it was actually easy to meet middle managers in a face-to-face manner.

Although changing organisational rules or policies could be more time consuming and difficult than solely providing some training courses, the consultants believed that the experience of past lean improvement projects revealed that they should assist their client organisation to develop a certain mechanism to support lean implementation. Senior managers in the project steering team agreed that integrating lean practices into the job responsibilities could better guide their employees' daily work and enable them to get rid of the old and outdated way of working (e.g. getting rid of bad work habits). For example, operators were required to regularly carry out 6S tasks and simple equipment maintenance work. Additionally, performance assessment criteria for supervisors and operators were also changed from solely focusing on quantity to covering the quantity and quality of the products, as well as focusing on the conditions of their machines and workstations.

However, when the drafted documents (drafted by consultants) of job responsibility and performance assessment criteria were submitted to the project steering team, negative feedback related to the content and presentation was provided by the managers. It was observed that during the meeting the general manager argued that the description of job responsibility was too general and wordy. One deputy general manager complained that many of the sentences in the documents were too obscure and complicated. The operations manager further pointed out that the description of some jobs seemed to be not quite relevant to the company's daily operations. It was also observed that during the meeting, the consultants admitted that there was a need to revise these documents, but they highlighted the effort they made when drafting these documents, such as discussing with other middle managers to convince the managers that they treated their work seriously, and worked hard and professionally. The general manager believed that the consultants should spend more time discussing with workshop directors who were familiar with shop floor operations.

5.3.3.3 Negotiating the project plan

Since the managers in the project steering team were dissatisfied with the drafted documents provided by the consultants, the consultants were required to spend more time revising them. In this sense, the consultants were concerned that it had become more difficult for them to accomplish all of the tasks stated in the project plan on time. The follow-on interviews with consultants and managers in the project steering team found that the consultants attempted to negotiate the project plan with the senior managers.

From the consultants' point of view, they believed that there was a need to either extend the deadline of the whole lean improvement project in Autoparts Ltd or adjust the tasks in the pre-defined project plan. Additionally, the senior consultant also pointed out that more middle managers should be engaged in the development of lean implementation guidelines and training materials in the future. Both the general manager and deputy general managers preferred to extend the deadline of the whole project rather than simply giving up some of the pre-defined project tasks. However, the general manager said that he was unable to give a quick and confirmed answer for the adjustment of the project plan because the extension of the project deadline meant more cost and only the owner could decide the acceptance of this additional cost.

5.3.3.4 Key themes identified

Table 5.7 summarises the key themes identified from the early implementation stage.

Table 5.7 Key themes identified at the early implementation stage

No.	Key themes
1.	The clients' view: the expert perspective on the role of consultants.
2.	Evidence-based consulting practice.
3.	Learning of lean practices at different levels in Autoparts Ltd.
4.	Abandonment of the existing practices.
5.	The impact of organisational size on the consulting practices at the early implementation stage.

Note: No priority is implied by the order in which these themes are presented

Source: Developed by the researcher

1. The clients' view: the expert perspective on the role of consultants

The consultants were viewed as experts and advisors by the managers in the project steering team. It was believed by the managers that, given the expertise possessed by the consultants, they were able to provide guidance and training during the project.

2. Evidence-based consulting practice

When the project proceeded to the implementation stage, a project steering team was established in Autoparts Ltd. Given the decisive role played by the general manager in the steering team, the consultants needed to convince him to gain the approval of the suggestions and materials they provided or at least to maintain a professional and positive image of the consulting activities that they conducted. In addition, as the owner decided whether the consultants could get the rest of the consulting fee and continue to carry out the project in Autoparts Ltd, it was also important for the consultants to show a positive image of the project's progress to the owner. Like the preparation stage, specific evidence that linked to the consulting activities (e.g. the record of the number of activities made by the consultants to accomplish tasks) in the project was provided by the consultants to convince the owner of the quality of their services.

3. Learning of lean practices at different levels in Autoparts Ltd

During the early implementation stage, learning occurred at different levels in Autoparts Ltd. At the individual and group levels, training courses associated with lean practices, such as 6S, were delivered to managers and employees. At

the organisational level, the current rules and policies of employees' job responsibility and performance assessment started to be changed. However, it was difficult for the consultants and managers (and employees) to build shared understanding of lean practices. Although the consultants possessed rich experience of conducting lean improvement projects, they lacked sufficient contextual knowledge of Autoparts Ltd and were unable to interpret lean practices through the language commonly used in Autoparts Ltd. The managers possessed rich work experience in Autoparts Ltd, but they lacked sufficient knowledge and experience of lean practices. In this sense, to interpret lean practices in an acceptable and understandable manner, there was a need for the consultants to change the unidirectional training approach by engaging and co-operating with middle managers who were more familiar with the daily operations in Autoparts Ltd. Similarly, the managers' negative feedback of the new job responsibility proposed by the consultants also implied that there was a need for co-developing the project materials with middle managers in the future.

4. Abandonment of the existing practices

While the managers and employees in Autoparts Ltd started to learn lean practices, some existing practices, such as poor work habits, were being challenged by the consultants. For example, in the training courses, the negative impact of some old practices in the workshops was illustrated by the consultants with the assistance of photos and pictures. The change of rules and policies associated with job responsibility and performance assessment further

implied that the old way of working in Autoparts Ltd would be changed in the near future.

5. The impact of organisational size on the consulting practices at the early implementation stage

The project steering team, which consisted of consultants, senior managers and the operations manager, was established at the beginning of the implementation stage. In this team, the general manager was viewed as the key decision maker by the consultants. However, given the central role played by the owner in Autoparts Ltd's overall decision making process, he actually acted as the "*big boss*" and kept tight control over the project in terms of financial and human resource management. In this sense, in addition to the general manager, the owner was also the key client to the consultants.

Another pattern that emerged at the implementation stage was the increasing importance of the middle managers (particularly the workshop directors in Autoparts Ltd) to the consultants. The organisational structure in Autoparts Ltd was simple and flat and, thereby, lower management layers that worked at the shop floor level (such as workshop directors) were highly visible to the consultants. Due to the low quality and availability of the formal documents, as well as the low standardisation of management and operations processes in Autoparts Ltd, the consultants were forced to negotiate with the middle managers to gain access to the shop floor and collect company specific information from them. Moreover, it was not easy for the consultants to gain

an in-depth understanding of the context in Autoparts Ltd within a short time period and, therefore, there was a need to develop a more collaborative relationship between the consultants and middle managers to ensure that the suggestions and guidelines for lean implementation could have their roots in Autoparts Ltd's context.

5.3 Summary of results

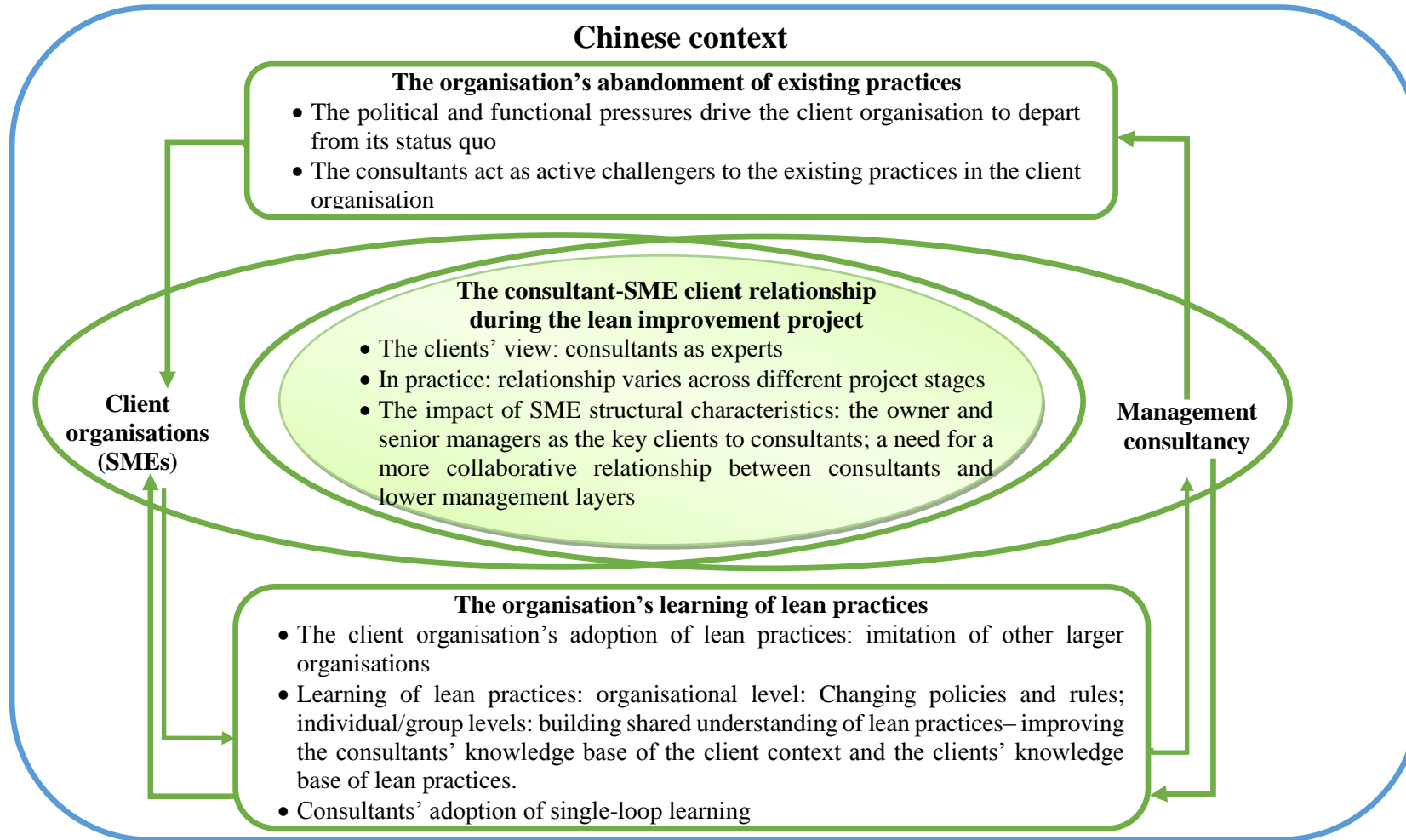
This section summarises the preliminary results from the pilot case study in relation to the research framework (see figure 5.3).

The changes of the consultant-client relationship

From this pilot case study, it was found that although the consultants were viewed as the experts and advisors by the owner and senior managers in Autoparts Ltd, the consultant-client relationship indeed varied across different project stages.

At the initial contact stage, the consultants focused on providing evidence to convince the key client to accept their service. Both generic evidence linking to the success of the consulting company and the consultants, and specific evidence linking to Autoparts Ltd's context were used by the consultants at this stage. In this sense, this confirms the critical perspective on the consultant-client relationship, which views the consultants as impression managers.

Figure 5.3 A summary of the preliminary results from the pilot case study



Key: → direction of learning; contextual boundary
 Source: Developed by the researcher

At the preparation stage, the consultants were expected to prepare a lean improvement project plan with solutions to the problems faced by Autoparts Ltd. This echoes the expert perspective on the consultant-client relationship, in which the consultants acted as the problem solver (e.g. Greiner and Metzger, 1983). Meanwhile, the consultants continued to use specific evidence (which reflected the owner's requirement and the status quo of Autoparts Ltd) to persuade the key client to accept the proposed project plan. This again reflects on a critical perspective (e.g. Clark 1995; Clark and Salaman, 1998) of the consultant-client relationship.

When the project moved to the implementation stage, the consultant-client relationship became more complicated. First, the consultants needed to convince the key clients to maintain a positive image of consulting practices. Second, the consultants initially attempted to act as experts who could provide suggestions and training to the client organisation. However, the findings showed that a pure expert perspective on the consultant-client relationship could be problematic (Nikolova et al., 2009). The consultants also needed to cooperate with managers to co-develop the project materials due to their lack of contextual knowledge of the client organisation. This reflects the social learning perspective of the consultant-client relationship.

The impact of organisational size on the consultant-client relationship

The client organisation (i.e. Autoparts Ltd) in the pilot study is an SME. The interviews (with the owner, managers and the consultants) and the collected project

documents showed that it shared many structural characteristics (which are suggested by the contingency literature) with other SMEs (see table 5.8).

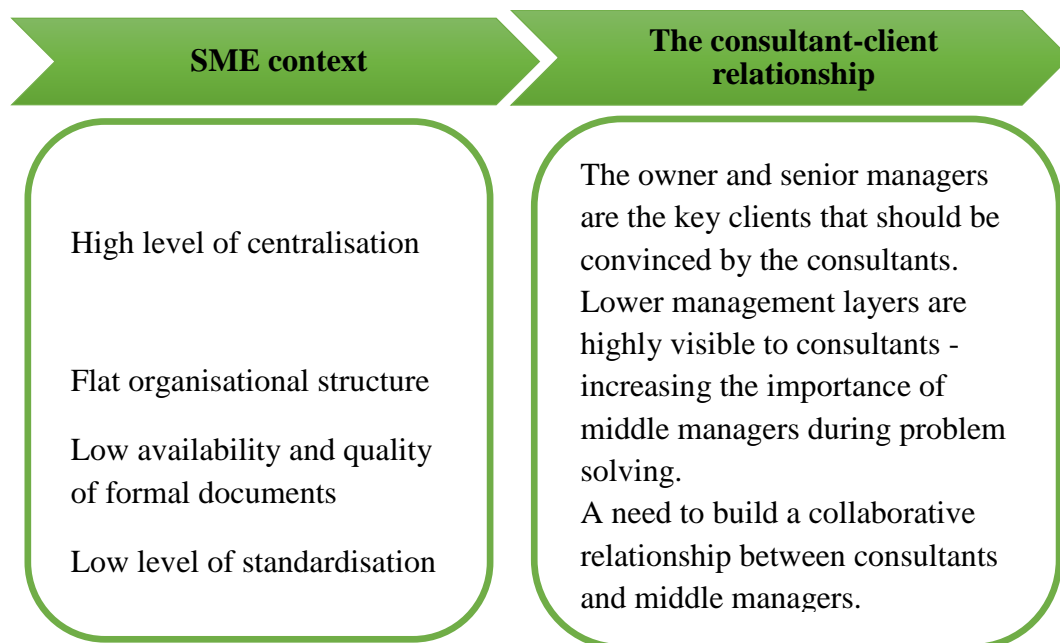
Table 5.8 A summary of structural characteristics of Autoparts Ltd

Structural characteristics of SMEs (Blau et al. 1976; Miller and Dröge, 1986; Pugh et al., 1969)	Structural characteristics of Autoparts Ltd
High level of centralisation	The owner as the main decision maker.
Flat organisational structure	There are only four management layers in Autoparts Ltd: the owner, senior managers, middle managers and employees.
Low level of formalisation	The availability of documents in Autoparts Ltd is quite low.
	Many documents are not up-to-date.
Low level of standardisation	Management and operations procedures are not standardised in Autoparts Ltd.

Source: Developed by the researcher

The preliminary findings from the pilot case study imply that the consultant-client relationship can be influenced by structural characteristics (see figure 5.4).

Figure 5.4 The impact of SME structural characteristics on the consultant-client relationship—results, from the pilot study



Source: Developed by the researcher

Since the decision making process is highly centralised in SMEs, the owner and senior managers (like the general manager in Autoparts Ltd) were viewed as the key clients for the consultants and the consultants used different types of evidence to persuade the owner and senior managers to accept their service. However, the relationship between consultants and SME clients should not simply equal the relationship between the consultants and the owner or senior managers. The flat organisational structure in Autoparts Ltd enabled the lower management layers, such as middle managers on the shop floor, to be highly visible to the consultants. On the one hand, the consultants were able to directly communicate with lower management layers to gain more specific information of the shop floor management. On the other hand, the low level of documentation (or formalisation) and standardisation in Autoparts Ltd further required the consultants to build a collaborative relationship with the lower management layers; for example, by engaging workshop directors in developing the solutions to the specific problems on the shop floor. In other words, the preliminary results from the pilot case study suggested that, while the main decision makers in Autoparts Ltd (such as the owner and senior managers) were essential to the consultants, there was also a need for the consultants to establish a close and collaborative relationship with lower management layers.

The organisation's abandonment of existing practices

The fierce competition in the marketplace that followed the financial crisis and the change of the government policies enabled the owner and senior managers to realise the seriousness of the negative impact of their old and outdated practices

on their company and, therefore, they believed that there was a need to get rid of these practices.

The consultants in this pilot case study played the role of the active challenger who surfaced the problems and the negative impacts associated with these inappropriate practices, raised the urgency of departing from these practices, and enthusiastically questioned or destructed the regulative and cultural-cognitive environment that these inappropriate practices relied on. For example, during the training course, phones and pictures were used by the consultants to illustrate the gap between the status quo of Autoparts Ltd and other companies that adopted lean practices. Additionally, new rules and performance assessment criteria were expected to be developed and implemented during the implementation stage.

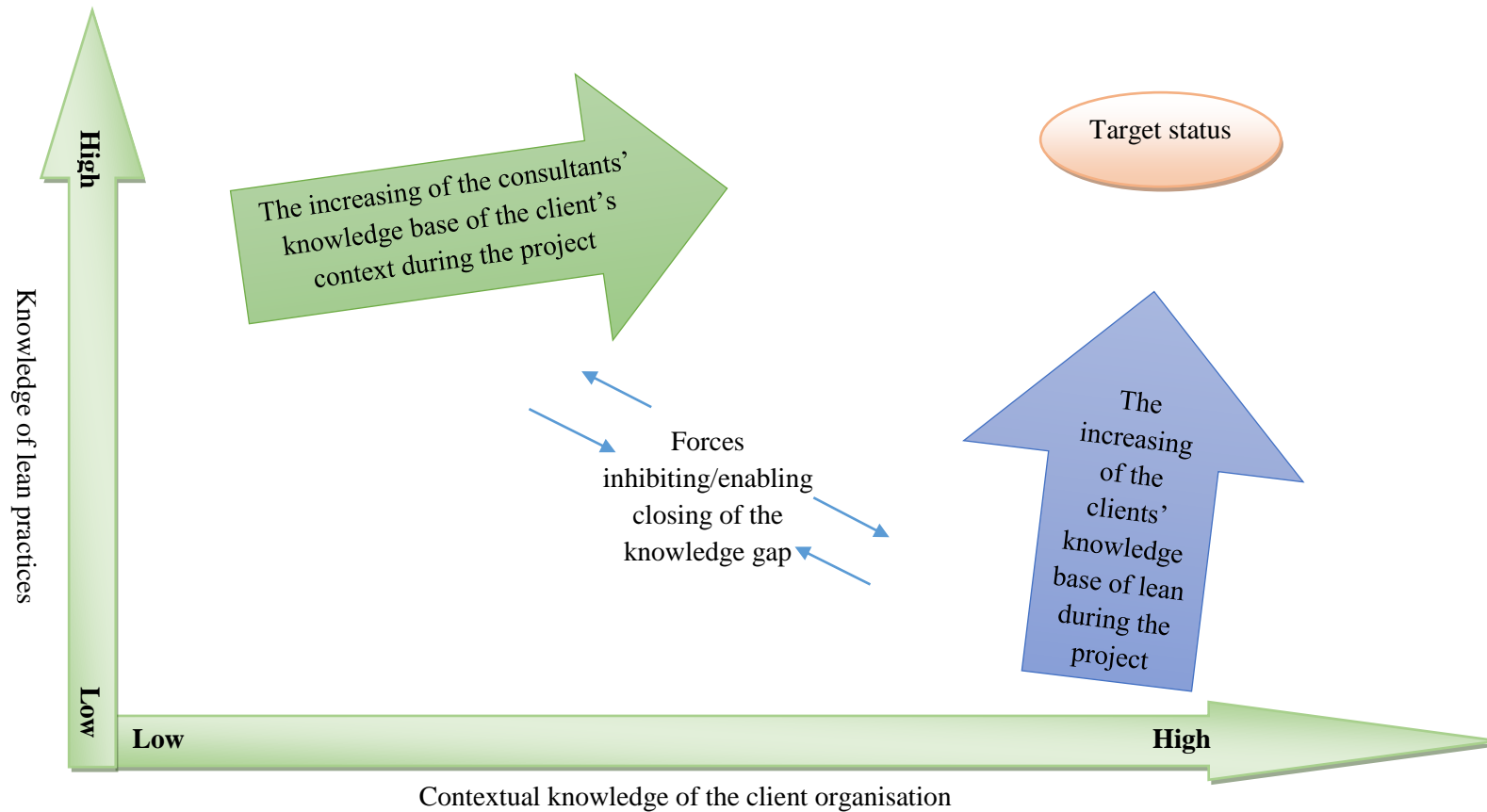
The organisation's learning of lean practices

Since lean is a popular concept in the automotive industry and many large car manufacturers have adopted lean practices to improve their performance, the owner and senior managers in Autoparts Ltd decided to imitate them. The literature (e.g. Antonacopoulou, 2006; Crossan et al., 1999; Kim, 1993) in the field of organisational learning suggests that learning may occur at different levels in the organisation, including individual, group and organisational levels. From this pilot case study, it was found that at the individual and group levels the managers and employees attended training courses to learn lean practices. At the organisational level, the policies and rules of job responsibility and performance assessment were changed to ensure that

the employees' behaviour can be guided by lean practices (such as 6S) in the near future.

However, organisational learning is not a simple and easy process. This pilot case study showed that there was a gap between the consultants' and clients' knowledge bases (see figure 5.5). Although the consultants (particularly the senior consultant) possessed experience and knowledge of applying lean practices in other manufacturing companies, they lacked specific and contextual knowledge (e.g. shop floor management) of their client organisation. Conversely, while managers and employees (such as supervisors) possessed rich contextual knowledge, they were unfamiliar with lean-related concepts and practices. In order to bridge this gap, a shared understanding of lean practices should be established between the consultants and managers or employees in the client organisation. This further required the consultants and managers or employees to understand each other's language and to interpret lean practices through the use of a common language. While the client's use of technical language and jargon was a barrier to close this knowledge gap, a more collaborative relationship between the consultants and clients could be an enabler. For example, the pilot case showed that a "train the trainer" approach provided opportunities for the consultants and middle managers (like the operations manager) to co-develop ideas of using lean practices (such as 6S to the shop floor).

Figure 5.5 Building a shared understanding of lean practices between the consultants and clients



Source: Developed by the researcher

Management consultancy's types of learning

It was found that, in most cases, a single-loop learning (Argyris and Schon, 1996) approach was adopted by the consultants in the pilot case study. For example, the consultants used different types of evidence to persuade the owner and senior managers to accept their service and solutions. The training courses were initially delivered in a unidirectional manner. The managers and employees were expected to accept what the consultants said rather than to question or challenge the consultants during the training courses. This reflected the traditional Chinese culture which emphasised that the juniors (such as middle managers and employees who were inexperienced about using lean practices) should respect seniors (such as consultants who possessed more advanced knowledge of conducting lean practices) (Whitley, 1992). Although the training approach was changed to a more collaborative method by engaging the middle managers, it was worth noting that the main purpose of using the “train the trainer” approach was to better educate the employees about the use of lean practices (which were suggested by the consultants in the project plan) on the shop floor rather than encouraging them to fundamentally question the use of these lean practices. While drafting the new policies and rules, the consultants selectively included what they believed was most appropriate for the client organisation rather than actively inviting other managers or employees to discuss or test their perspectives.

Based on the preliminary results from this pilot case study, the reasons for the dominance of single-loop learning are threefold. First, from the owner or the managers' points of view, the consultants who acted as the experts should possess more professional knowledge than themselves and, consequently, the consultants were hired to “give” advice and training to them, rather than the opposite. In short, the consultants

knew what the owner or managers did not know and it was the consultants' responsibility to tell them what and how to correct this lack of knowledge. From the consultants' point of view, they were employed as the experts, and they gained legitimacy among the owner and senior managers based on this "expert image". Naturally, they should act and behave as professionals to protect their "expert image" and prevent themselves from losing face (i.e. *mianzi*) in their client organisation. In this sense, any action (such as an open discussion) that may threaten this "expert image" was not welcomed by the consultants.

Second, as a project, the consultants faced pressure from the client organisation. They were under the pressure to accomplish tasks that were included in the project plan with tight deadlines. For example, the consultants in the lean improvement project in Autoparts Ltd were asked to submit monthly reports to the owner. If the actual progress of the project lagged far behind the planned progress, then the owner would be dissatisfied with the consultants' progress and may delay the payment for the rest of the consultancy fee, or even directly terminate the contract. In this sense, ensuring the progress of the project became an important aspect of the consultants' practice and the consultants made every effort to follow the project plan. Any action that may delay progress was expected to be removed or at least minimised.

Moreover, the consultants' salary and bonus were paid by the consulting company rather than by the client organisation. In this pilot case study, it was observed that the consulting company asked for an approved monthly progress report from the consultants. If the consultants were unable to supply this report on time, then their

salary and bonus would be reduced. In other words, the consulting company rewarded “success” (i.e. consultants who accomplished tasks on time) but punished “failure” (i.e. consultants who was unable to accomplished tasks on time).

5.4 Reflection - Methodological Issues and Counter Measures

To ensure the rigour and robustness of the study, this section will reflect on the methodological issues that emerged during the pilot case study and provide the solutions to counteract these issues in the main study. This pilot study mainly focused on “*what is happening*” in one particular Chinese SME. In other words, all of the empirical evidence for findings and discussions were based on the consultancy-involved lean improvement project in Autoparts Ltd. However, according to Blumberg et al. (2005), multiple case studies can provide richer and more robust information. Hence, for the main study, more cases are included to compare and contrast different findings. Moreover, the consultancy project in this pilot study was at its early implementation stage during the researcher’s visit and, consequently, the availability of project information was limited, and the managers and employees were unfamiliar with the terms associated with lean practices. In this sense, the main case studies should select projects at their middle to final, or at the final stage. The data collection methods in this pilot case study were semi-structured interviews, observations, and documentation. The issues and solutions related to the data collection process are summarised in table 5.9. The data was manually coded and analysed. However, for the main case studies, the amount of data will be larger and it will, therefore, be impossible for the researcher to analyse this data manually. Consequently, the qualitative data analysis software NVivo will be employed for the main case studies.

Table 5.9 Issues and counter measures of data collection

Methods	Issues	Causes of issues	Counter measures
Semi-structured Interview	Some interviewees refused to answer questions.	They felt that some questions were too sensitive.	Sensitive words, such as attitudes and opinions, should be avoided.
	It was difficult for some employees (such as supervisors and operators) to answer questions.	They were not familiar with lean concepts.	Discuss with the consultants and explore the common use of lean concepts in the industry. Give brief explanations of some concepts during the interview. Select projects that are at the middle to end, or at the end stage as target cases.
	Some interviewees forgot what they said and asked for a prompt.	Sometimes the interview was interrupted by phone calls.	Prepare a notebook and a pen to write down the keywords of the answers.
	Employees lacked motivation to participate in the interview.	The researcher was not recognised in the company.	Offer prize draw and snacks to improve their participation. Re-emphasise that their answers will be kept confidential.
Observation	There was no observation guide for the training course.	Access to the training course was confirmed in late Feb.	Reviewed the observation guides of the shop floor and meetings, and designed an observation guide for the training course.
Documentation	Many documents were collected but several documents could not be used in this study.	Did not have clear guidance for collecting documents.	Listed the “must-have” documents before conducting the main case studies.

Source: Developed by the researcher

5.5 Conclusion and relevance to the thesis

The pilot case study covered three stages of the lean improvement project in Autoparts Ltd, including the initial contact stage, the preparation stage and the early implementation stage. Based on semi-structured interview, direct observation and documentation, rich qualitative data were included in the preliminary results of the pilot case study. The results from this pilot case will be compared and contrasted with the results from the main case studies. Three themes (i.e. organisations' abandonment of existing practices, the consultant-SME client relationship during lean improvement projects and organisations' learning of lean practices) will continue to be adopted as the key themes for this research.

From this pilot case study, some methodological issues related to case selection, data collection and analysis (such as difficulties of conducting the interviews and observations) can also be detected. The solutions provided in table 5.9 will be applied in the design of the main case studies. The next chapter presents the results from the main case studies by using a similar format.

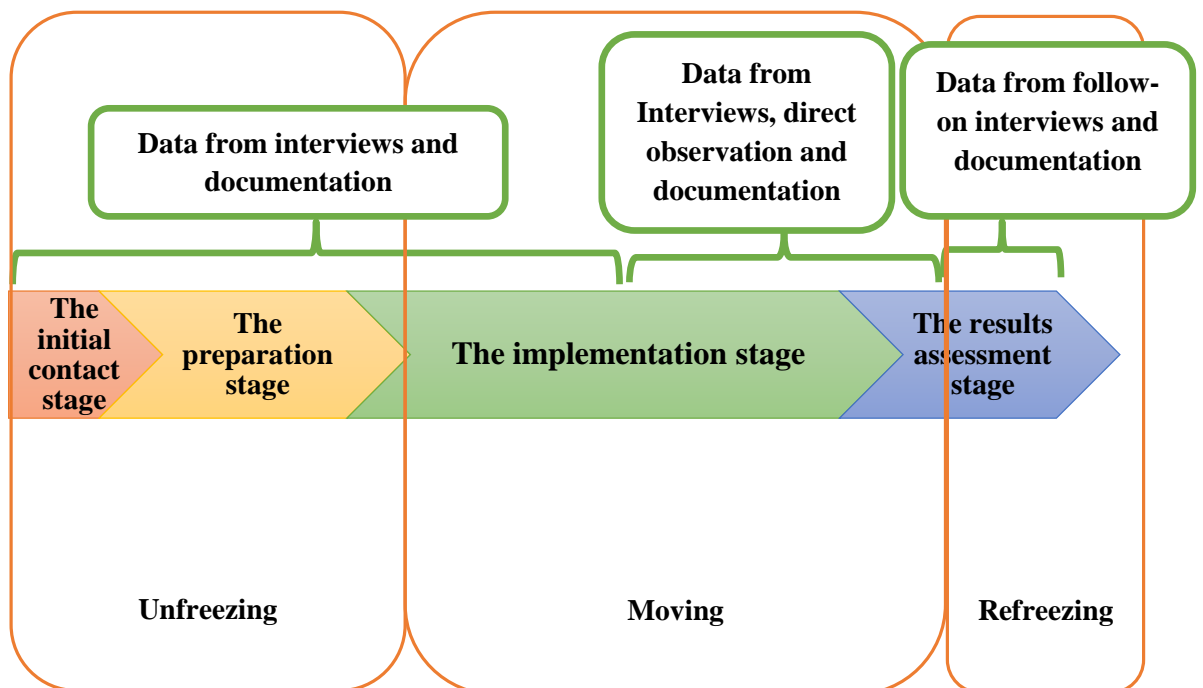
CHAPTER 6 RESULTS FROM THE MAIN CASE STUDIES

Chapter 6 Results from the Main Case Studies

6.1 Chapter Introduction

This chapter presents the results from the main case studies. The scope of these cases encompasses four stages of the consultancy projects, including the initial contact stage, the preparation stage, the implementation stage, and the results assessment stage (see figure 6.1). This chapter is divided into four sub-sections based on these four stages. The results from main case studies will be compared with the preliminary results from the pilot case study, where appropriate.

Figure 6.1 The scope of the main case studies



Source: Developed by the researcher

6.2 Results from the main case studies

The pilot case study identified four stages of the lean improvement project undertaken in Autoparts Ltd, including the initial contact stage, preparation stage, implementation stage and results assessment stage. By comparing the interviews with the consultants and managers, as well as the project documents (i.e. project plans and project progress reports) of another four client organisations (i.e. Textile Ltd, Glass Ltd, Fasteners Ltd, and Nailguns Ltd), it was found that they experienced the same project stages as the pilot case. Hence, the results from the main case studies will continue to be presented based on these four stages (see figure 6.1). The preliminary results from pilot case study will be compared with results from main case studies, where appropriate.

6.2.1 The initial contact stage

The comparison between the interviews with consultants and managers in the main case studies found, similar to the pilot case study, the main consulting activities at the initial contact stage were:

- gaining an initial understanding of the client organisations' context; and,
- convincing the key client to accept the consulting company's service.

6.2.1.1 Gaining an initial understanding of the client organisations' context

The interviews with the owner and senior managers in each client organisation indicated that lean implementation was driven by both internal and external pressures (see table 6.1). Internally, the owners and senior managers commonly mentioned that they faced the problem of inefficient shop floor management, which led to quality, delivery, and safety issues. For example, like Autoparts Ltd, the senior managers in

Textile Ltd, Glass Ltd and Nailguns Ltd reported that the defects rate in their companies was high and this further increased their production cost. The owner and senior managers in Fasteners Ltd mentioned that the disorganisation of their shop floor management negatively impacted on their reputation because their customers were unhappy with the current layout and arrangement of their shop floor. In addition to shop floor management, the owners and senior managers in Autoparts Ltd, Textile Ltd and Glass Ltd pointed out that the disorganisation of their current internal management process was another issue of concern. For example, the owners and senior managers in Textile Ltd and Glass Ltd said that their internal management processes were relatively informal and unclear.

Externally, similar to Autoparts Ltd, the owner and senior managers in Textile Ltd said that the global garment market was decreasing after the financial crisis happened between 2007 and 2008 and it was more difficult for Textile Ltd to obtain orders from customers (i.e. printing and dyeing companies, or garment manufacturers). The deputy general manager mentioned that there were more than 100 textile companies located near to Textile Ltd, and some of them had begun to improve their internal management capability and processes, and use lower prices to attract customers. In this sense, the owner and senior managers felt that there was a need for them to improve the company's performance. They mentioned two reasons to adopt lean practices. First, the owner of Textile Ltd had heard many successful stories about other manufacturing companies' adoption of lean practices. Second, the adoption of lean practices was also recommended by the senior consultant during the initial contact meetings.

Table 6.1 Internal and external drivers for the client organisations to change their status quo and adopt lean practices

Drivers		Autoparts Ltd	Textile Ltd	Glass Ltd	Fasteners Ltd	Nailguns Ltd
Internal drivers	Improving the management system or processes	Disorganisation of current management processes	Disorganisation of current management processes	Disorganisation of current management processes	---	---
	Improving the shop floor management	Quality and safety issues	Quality and delivery issues	Quality and cost issues	Disorganisation of shop floor	Quality and cost issues
External drivers	Increasing competition in the marketplace	Sales decrease Change of competitors' behaviour Policy change	Sales decrease A large number of nearby competitors – change of some competitors' behaviour	Sales decrease	---	---
	Popularity of lean in the industry	lean as a popular concept in Automotive industry	Success of lean in the manufacturing sector	lean adopted by other larger glass manufacturers	---	---
	Customers' requirement or recommendation of adopting lean	---	---	---	Main customer's recommendation of the lean practice – 6S	Main customer's requirement of adopting lean practices
	Consultants' recommendation of adopting lean	---	The senior consultant recommended lean	---	---	---

Note: “---” means “not mentioned by the interviewee”.

Source: Developed by the researcher on the basis of the interviews with the owner and senior managers in each client organisation

For Glass Ltd, the owner and senior managers reported that the decline of Chinese real estate market had a negative impact on the company's sales as they were the glass supplier for construction and real estate companies. While it was more difficult to obtain orders from customers and increase sales, the owner and senior managers believed that there was a need to reduce their internal production costs. The visit to two larger glass manufactures that were adopting lean practices further enabled the owner and senior managers to recognise that their management and operations processes were quite disorganised and outdated. Hence, the owner and senior managers wanted to emulate these larger glass manufacturers by adopting lean practices.

The situation in Fasteners Ltd and Nailguns Ltd differed from the other three companies. The driver for change and the adoption of lean practices in these two companies came mainly from their customers. For Fasteners Ltd, one of its main customers was dissatisfied with their disorganised shop floor and recommended them to adopt 6S. In Nailguns Ltd, the owner and senior managers decided to improve their shop floor because of the requirement to participate in their customer's "supplier development" scheme, which mainly provided the training courses for lean practices. While asking the owner and senior managers in Textile Ltd, Glass Ltd, Fasteners Ltd, and Nailguns Ltd for the reasons to hire the consultants to carry out the lean improvement projects, their responses mainly reflected the expert image of the management consultants which was consistent with the responses from the owners and senior managers in Autoparts Ltd in the pilot study (see table 6.2).

Table 6.2 Reasons for hiring management consultants

Reasons	Autoparts Ltd	Textile Ltd	Glass Ltd	Fasteners Ltd	Nailguns Ltd
Consultants are more <i>professional</i> in terms of conducting lean improvement projects and providing training.	√	√	√	√	√
Consultants possess lots of <i>knowledge</i> in terms of using lean practices.		√	√		√
Consultants have substantial experience in terms of conducting lean improvement projects.	√	√	√	√	√
Consultants can provide <i>objective</i> perspectives on our status quo.				√	
Consultants can deal with issues sensibly and realistically in a way that is based on <i>practical</i> considerations.			√	√	

Source: Developed by the researcher based on the interviews with the owner and senior managers in each client organisation

From table 6.2, it can be observed that the consultants' past experience of conducting lean improvement projects was highly recognised as the main reason for the owners and senior managers to employ the consultants. The consultants were viewed as experts who possess substantial knowledge of using lean practices. The owners and senior managers in Glass Ltd and Fasteners Ltd also pointed out that the consultants were "pragmatic" experts who dealt with practical issues. The owner and senior managers in Fasteners Ltd believed that consultants could give them more objective suggestions. Given the expert image of consultants presented by the owners, it was unsurprising to find that, in most cases, the consultants were expected to provide suggestions, guidelines, and training when implementing the projects (see table 6.3).

Table 6.3 The owner's expectations of the consultants when implementing the projects

Client organisations	Expectations
Autoparts Ltd	Provide suggestions, guidelines and training during the project.
Textile Ltd	Act as the general manager and make decisions as well as providing training during the project.
Glass Ltd	Act as the deputy general manager and make decisions as well as providing training during the project.
Fasteners Ltd	Provide suggestions, guidelines and training during the project.
Nailguns Ltd	Provide suggestions, guidelines and training during the project.

Source: Developed by the researcher based on the interviews with the owner in each client organisation

However, the owners in Textile Ltd and Glass Ltd further expected the consultants to act as senior managers (i.e. general manager and deputy general manager, respectively) in their companies. Both of them believed that the consultants' extensive work experience in companies that were similar to their own was an important reason for

expecting consultants to play the role of the senior manager. Other reasons linked to the company's context were also mentioned by the owners of these two client organisations. For example, the owner of Textile Ltd said that, due to the former general manager's retirement, it was urgent for him to find a new general manager who had a good understanding of technology in the textile industry and who possessed advanced management methods. The owner in Glass Ltd believed that giving the consultant a decisive role in the company would enhance the efficiency of the changes of rules and policies.

In the pilot case study, it was found that the consultants gained limited understanding of the company context due to the low availability of the formal introductory documents, such as the introduction of production lines in Autoparts Ltd. Similarly, during the interviews in the main case studies, the consultants who were hired by the four client organisations also argued that the contextual information given by the owners or senior managers was general and brief at this stage. The results from the interviews with the owners and senior managers confirmed the consultants' argument. Only the owners and senior managers in Fasteners Ltd and Nailguns Ltd said that they provided their company introductory documents (e.g. PowerPoint slides or a brochures for company introduction) to the consultants, but they also mentioned that some information related to the shop floor included in these documents was not up-to-date. The owners and senior managers in Textile Ltd and Glass Ltd said that their company's introductory documents had not been sorted out and, therefore, they could not provide these to the consultants. However, the owners and senior managers in these four client organisations commonly mentioned that they were willing to answer any questions about their companies during the meetings. In this case, it was important for

the consultants to actively prepare and ask questions related to the client organisations' context during the initial meetings.

6.2.1.2 Convincing the key client to accept the consulting company's service

In the pilot case study, it was found that the owner in Autoparts Ltd was the key client to the consultants and middle managers, and the employees were excluded from the initial contact meetings because the decision-making process in Autoparts Ltd was highly centralised. This finding was confirmed by the interviews with the consultants, managers, and employees in the main case studies. All of the interviewed consultants believed that the owner in the client organisation was the key client as the owner was the main decision maker. It was agreed by all the interviewed senior managers that the owner kept tight control over the financial management, sales, and human resources management. Therefore, their role in the initial contact meetings was more advisory. The interviewed middle managers and employees in the main case studies said that they did not have the opportunity to attend any initial contact meetings and most of them were not aware of the consultancy project in their companies before it was announced by the owners or senior managers.

Since the owner was the key client to the consultants, it was not unsurprising to find a wide agreement among consultants which viewed attracting the owner's attention and convincing the owner to accept their services as the key task at the initial contact stage. The interviews with the consultants and senior managers showed that it was common for senior consultants to give a formal presentation. Hence, the presentation served as

a primary vehicle for the consultants to introduce themselves and highlight their strengths.

Through interviewing the consultants and analysing the PowerPoint slides used in the presentations, some common patterns can be found. First, evidence which generally showed the success of ZQ Consulting Company and the consultants (such as the awards, qualifications, accreditations, and previous successful projects) was included in all of these presentations. Second, evidence which was adapted to the context of the client organisations was also included in the presentation by the consultants, such as their past successful projects in the client organisation's industry or their successful experience in using the specific lean practice (e.g. 6S in Fasteners Ltd). Moreover, it was found that visuals, such as photos taken from the consultants' past projects, were used frequently in the presentations. The consultants believed that the use of visuals directly illustrated the changes that the consultants had made in their former client organisations. When asking the owners and senior managers for their perspectives on the consultants' presentations during the interviews, their responses were very positive because they believed that the content in the presentations was practical and linked to their needs.

Other evidence showed that convincing the owner was the key task for the consultants at the initial contact stage, which included the way that they responded to the owner's requirements and expectations. When asking the consultants whether they would negotiate the expectations with the owner at the initial contact stage, they commonly contended that it was more important to show how the owner's expectations could be

met and to gain the agreement from the owner at this early stage rather than being eager to negotiate with them.

6.2.1.3 Summary of the initial contact stage

Table 6.4 summarises the key themes identified from the initial contact stage.

Table 6.4 Key themes identified at the initial contact stage

No.	Key themes
1.	Drivers for client organisations to depart from status quo and adopt lean practices.
2.	The clients' view: the expert perspective of the role of consultants.
3.	The roles of consultants in the projects: decisive vs. advisory.
4.	Evidence-based consulting practices.
5.	The impact of organisational size on the consulting practices at the initial contact stage.

Note: No priority is implied by the order in which these themes are presented.

Source: Developed by the researcher

1. Drivers for client organisations to depart from status quo and adopt lean practices

The results from the cases showed that changing the current performance and adopting lean practices were driven by both internal and external pressures faced by these client organisations. Internally, the inefficiency on the shop floor, which led to quality, safety, delivery and cost issues, was the main issue for all the client organisations. Externally, changes in the marketplace, such as increasing competition and decreasing customer demand, further triggered these client organisations to change their current performance. While there were many improvement practices and initiatives available in the business marketplace, the interesting point was why these client organisations

chose to adopt lean practices. The results indicated that pressure from customers, recommendations of the consultants, and the client organisation's desire to model the successful larger organisations were the key drivers. Hence, external pressure played an important role in the client organisations' choice of adopting lean practices.

2. The clients' view: the expert perspective of the role of consultants

The owners and senior managers' responses to the reasons of hiring management consultants were reflected in the expert view of the role of consultants. The owners and senior managers commonly believed that the consultants were professional and experienced in terms of using lean practices. They positioned the consultants as the professional and experienced experts, and expected to gain solutions from the consultants.

3. The roles of consultants in the projects: decisive versus advisory

Since the consultants were generally viewed as experts by the owners and senior managers in these client organisations, it may be unsurprising to discover that the consultants were expected to provide training and advice when implementing lean improvement projects. However, what was surprising was in Textile Ltd and Glass Ltd, the consultants were expected to play a decisive role. An important reason for employing the consultants as senior managers (decisive role) was the consultants' substantial work experience in companies that were similar to these two client organisations. This implied that the more contextual knowledge of the client

organisations possessed by the consultants, the more likely the owners would expect them to play a decisive role in the project.

4. Evidence-based consulting practices

Since the owners' attitudes towards the quality of the services provided by the consultants determined whether the consultants could secure their contracts, it was crucial for the consultants to convince the owners to accept their services. General evidence showing the success of the consulting company and consultants, such as the success of their past projects, and the consultants' qualifications or accreditations, was presented by the consultants during the initial contact meetings. Specific evidence that was adapted to the needs of the client organisations was also highlighted by the consultants. Visuals, such as photos taken from their past projects, were used frequently by the consultants to enable the evidence to look more objective.

5. The impact of organisational size on the consulting practices at the initial contact stage

The client organisations were all SMEs. It was found that the decision-making process was highly centralised in these client organisations. The owner retained a tight control over the financial management and human resource management. The senior managers who attended the initial contact meetings normally acted as advisors. The middle managers and employees did not have the opportunity to attend the initial contact meetings. Hence, the owner was identified as the key client by the consultants. In addition, the consultants could only gain limited contextual information from their client organisations during the initial contact stage because the availability and quality

of the client organisations' introductory documents were all quite low. There was a need for the consultants to actively asking relevant questions about the client organisations during the initial contact meetings.

6.2.2 The preparation stage

After gaining the agreement from the owner, similar to the consulting practices in the pilot case study (Autoparts Ltd), all client organisations in the main case studies experienced the preparation stage, which consisted of the following consulting practices:

- gaining a more in-depth understanding of the client organisation's context;
- making the project plan; and,
- convincing the key client to approve the project plan.

6.3.2.1 Gaining a more in-depth understanding of the client organisation's context

During the preparation stage, the consultants conducted the on-site investigation at their client organisations. According to the interviews with the consultants, the on-site visit enabled them to gain a more in-depth understanding of the client organisations' current management and operations processes, and to find the problems in these processes. The comparisons of the interviews with the consultants, managers and employees, and project plans across the client organisations showed some differences and similarities of the scope of the consultants' on-site investigation, challenges faced by the consultants during the investigation, the way to overcome the challenges, and the focus of the problems identified from the on-site investigation.

The scope of the consultants' on-site investigation

Table 6.5 summaries the scope of the consultants' on-site investigation in each client organisation. The on-site investigation covered both organisational and operational levels in Autoparts Ltd, Textile Ltd and Glass Ltd, whereas in Fasteners Ltd and Nailguns Ltd, it was more shop floor and operational level focused. In the pilot case study, it was found that the consultants attempted to connect the scope of their on-site investigation to the problems or concerns presented by the owner or senior managers in Autoparts Ltd at the initial contact stage to enhance the legitimacy of the project plan. This finding was confirmed by the interviews with the consultants in the main studies. All of the consultants agreed that the scope of the on-site investigation should reflect on the owners' descriptions of the pressures or problems, and expectations for the projects. For example, the owners (and senior managers) in Autoparts Ltd, Textile Ltd, and Glass Ltd raised their concerns about the disorganisation of the current management and operations processes whereas the owners (and senior managers) in Fasteners Ltd and Nailguns Ltd focused on the shop floor management issues during the initial contact meetings. Therefore, the scope of the consultants' on-site investigation varied in accordance with concerns and problems mentioned by the owners (and senior managers).

Table 6.5 The scope of the consultants' on-site investigation in each client organisation

The scope of the on-site investigation	Autoparts Ltd	Textile Ltd	Glass Ltd	Fasteners Ltd	Nailguns Ltd
Organisational structure	√	√	√		
Managers/employees' job responsibilities	√	√	√		
Human resource and performance management	√	√	√	√	√
Other rules and policies related to management process	√	√	√		
Production planning/control	√	√			
Operation procedures	√	√	√	√	√
Quality control process	√	√	√		√
Equipment management	√	√			√
Warehouse management	√	√		√	√
Shop floor layout	√	√	√	√	√

Source: Developed by the researcher based on the interviews with the consultants, managers and employees and the project plans

Challenges faced by the consultants during the investigation

In the pilot case study (Autoparts Ltd), low availability and quality of the company documents and low level of the standardisation of the current management and operations processes were viewed as main challenges by the consultants during their on-site investigation. The interviews with the consultants who were hired by the four client organisations (i.e. Textile Ltd, Glass Ltd, Fasteners Ltd and Nailguns Ltd) generally confirmed the above views. The consultants argued that many documents (e.g. documents or records related to performance assessment results, warehouse management and quality management) needed by them were not available in their client organisations and a number of them (e.g. documents related to shop floor layout, production lines, equipment management, job responsibilities) were not well- sorted, or up-to-date. They commonly reflected that management and operations procedures in their client organisations were very informal and flexible. They agreed that it was not unusual for the workshop directors or supervisors to orally change work instructions on the shop floor.

In addition to the low level of documentation and standardisation, high employee turnover was considered as another challenge faced by the senior consultant in Textile Ltd. Since there were many other similar companies (i.e. their competitors) that were located closely to Textile Ltd, it was easier for employees (particularly operators) to change their jobs. The senior consultant could gain little contextual information about Textile Ltd from the new operators.

The way for the consultants to deal with the challenges

The preliminary results from the pilot study showed that it was important for the consultants to become involved and communicate with middle managers and supervisors who were familiar with daily operations in the client organisation. In the main case studies, the consultants agreed that it was necessary to involve the middle managers and experienced supervisors or operators during the on-site investigation to overcome the challenges that they faced at this stage. The analysis of the interview data with the consultants, managers and employees and the project plans showed that, in addition to interviewing the owner and senior managers, the consultants commonly used interviews, group discussions, and questionnaires to collect contextual information from middle managers (such as production/operations managers, workshop directors, and warehouse managers) and employees (such as experienced supervisors, who were particularly mentioned by the senior consultant in Textile Ltd where the employees' turnover rate was high, and operators) during their on-site investigation. The interviews with middle managers and employees showed that they were normally asked to briefly describe their daily jobs and provide their perspectives (particularly what they felt went wrong) on the current management or operations processes in their company.

Although the involvement and communication with middle managers and experienced supervisors or operators were viewed by the consultants as the main way to deal with the challenges during their on-site investigation, the efficiency of dealing with these challenges varied. For example, the consultants in Textile Ltd and Glass Ltd had substantial experience in working in similar companies and, therefore, they were

familiar with their client organisation's context, such as their organisational structure, daily management and operations, equipment, technical terms, and the language used on the shop floor. In this sense, they said that their communications with middle managers and supervisors were very efficient. In contrast, like the consultants in Autoparts Ltd, the consultants in Fasteners Ltd and Nailguns Ltd had previous experience of conducting lean improvement projects in other manufacturing companies, but they did not have direct work experience in the same industries as their client organisations. Hence, during the interviews, the consultants mentioned that they had to spend a lot of time communicating with managers and becoming familiar with their client organisations' shop floor management.

The problems identified from the investigation

Table 6.6 summarises the main problems identified by the consultants from their on-site investigation. Given the scope of their investigation, the identified problems in the Autoparts Ltd, Textile Ltd and Glass Ltd covered both organisational and operational levels, whereas in Fasteners Ltd and Nailguns Ltd the description of problems mainly focused on the shop floor level. In addition, the problems identified by the consultants seemed to be consistent with the problems or pressures mentioned by the owners and senior managers at the initial contact stage.

Table 6.6 The problems identified by the consultants from their on-site investigation

The problems in the client organisations	Autoparts Ltd	Textile Ltd	Glass Ltd	Fasteners Ltd	Nailguns Ltd
Unclear job responsibilities for managers and employees	√	√	√		
Low quality employees: lack of training	√	√	√	√	√
Inappropriate performance assessment criteria: solely quantity based	√	√	√	√	√
Inconsistence between the planning and production: delivery issues	√	√			
No or incomplete standard operation procedures – potential safety issues	√	√	√	√	√
Informal quality control process – high rate of defects	√	√	√		√
High cost of equipment maintenance	√	√			√
Disorganisation of warehouse management	√	√		√	√
Inappropriate shop floor layout: a lot of waste, high production cost	√	√	√	√	√

Source: Developed by the researcher based on the interviews with the consultants and project plans

6.2.2.2 Making the project plan

In the pilot case study, it was found that the project plan was co-developed by the consultants and managers (particularly middle managers). The consultants hired by Textile Ltd, Glass Ltd, Fasteners Ltd and Nailguns Ltd also indicated that they discussed the key tasks and schedules with senior managers or middle managers during the plan-making process and, similarly, they viewed the plan-making process as a joint process. The consultants believed that the inclusion of the managers' suggestions would make the project plans fit better with the client organisations' context. Moreover, the inclusion of the senior managers and middle managers' suggestions also enhanced the legitimacy of the project plans because it showed that the consultants considered the actual situations in the client organisations.

The interviews with senior managers and middle managers in the client organisations showed that they also agreed the project plans were developed jointly made with the consultants. They commonly mentioned that the consultants organised group discussion meetings or individual meetings during the plan-making process, and they could discuss and suggest the proper schedules or key tasks in the project plan during these meetings. Table 6.7 summarises the key tasks included in the project plan in each client organisation.

Table 6.7 The key tasks included in the project plan

Key tasks in the project plan	Autoparts Ltd	Textile Ltd	Glass Ltd	Fasteners Ltd	Nailguns Ltd
Revise and change job responsibilities for managers and employees	√	√	√		
Train managers and employees	√	√	√	√	√
Revise or re-design the performance assessment criteria and processes	√	√	√	√	√
Standardise operation procedures	√	√	√	√	√
Revise and standardise the quality control process	√	√	√		√
Establish and standardise equipment maintenance procedures – TPM	√	√			√
Improve safety management on the shop floor – 6S	√	√	√	√	√
Improve shop floor management – 6S and visual management	√	√	√	√	√
Improve and standardise warehouse management processes	√	√		√	√
Re-design shop floor layout – cellular manufacturing					√

Source: Developed by the researcher based on the project plan in each client organisation

6.2.2.3 Convincing the key client to approve the plan

In the pilot case study, it was found that the owner was considered as the key client by the consultants at the preparation stage and the consultants made every effort to convince the owner to approve the plan. In the main case studies, it was confirmed by the consultants that the owner in their client organisation was the key client because the owner decided whether the project plan could be approved and they could not move to the implementation stage without the owner's approval. The interviews with senior managers showed that, although they agreed that they were involved in plan-making process, they pointed out that the owner in their company was the only one who could approve the project plan. The main reason was that the owner kept tight control over the financial management in their company and he decided the expenditure of the project.

In the pilot case study, the consultants included different types of evidence in the project plan to enhance its legitimacy. In the main case studies, a comparison of the project plans of these four client organisations found that the consultants adopted a similar structure and presentation in the project plans and in each section of the project plan, evidence was listed to convince the owner that the plan was realistic and could satisfy his requirements. During the interviews, the consultants hired by Fasteners Ltd mentioned that the presentation and structure of the project plan were standardised in ZQ Consulting Company because it was an easy way for the consultants to show the logic and advantages of the project plan. Table 6.8 shows the common evidence used by the consultants in the project plans.

Table 6.8 The common evidence used by the consultants in project plans

Section of the project plan	Evidence
Project background	A brief overview of the problems described by the owner and senior managers at the initial contact stage.
The owner's requirement	A re-emphasis on the owner's requirements and expectations.
Description of the problems	<p>An emphasis on the connection between the scope of the on-site investigation and the owner's requirements.</p> <p>An emphasis on the quality and validity of the information collected from on-site investigation: the inclusion of lower management layers like middle managers and supervisors; the use of "scientific and professional" methods - the records of interviews, questionnaires and direct observation.</p> <p>A detailed description of the problems identified from the on-site investigation: link them back to the owner's requirements.</p>
Key tasks	An emphasis on the validity of the key tasks: co-developed with senior managers and middle managers; link them back to the owner's requirements.
Expected outcomes	An emphasis on the potential benefits of the project and link these benefits back to the owner's requirements.

Source: Developed by the researcher based on the project plans made by the consultants

6.2.2.4 Summary of the preparation stage

Table 6.9 summarises the key themes identified from the preparation stage.

Table 6.9 Key themes identified from the preparation stage

No.	Key themes
1.	Consultants' development of the contextual knowledge of their client organisations.
2.	The co-development of a plan.
3.	Evidence-based consulting practices.
4.	The impact of organisational size on the consulting practices at the preparation stage.

Note: No priority is implied by the order in which these themes are presented.

Source: Developed by the researcher

1. Consultants' development of the contextual knowledge of their client organisations

At the preparation stage, the consultants attempted to gain a more in-depth understanding of the client organisations' context through their on-site investigation. Given the low availability and quality of the company documents, and the informality of the current operations or management processes, as well as the high employee turnover rate in these client organisations, developing a contextual knowledge of the client organisations became a challenging task for the consultants. The consultants who possessed extensive work experience in similar companies felt more confident and efficient in terms of communicating with middle managers and supervisors to obtain useful company information. However, the consultants who lacked such experience felt that they were more struggling and were less efficient in becoming familiar with the client organisations' context.

2. The co-development of a plan

Both senior and middle managers were included in the development of the project plan. The consultants believed that the inclusion of the managers enabled the project plan to be more realistic for the client organisations and could enhance the legitimacy of the project plans. For managers, their involvement in the planning process enabled them to become familiar with the tasks and schedule of the projects.

3. Evidence-based consulting practices

The consultants were unable to carry on the project without the owner's approval of the project plan. In this case, convincing the owner to accept the project plan became a critical task for the consultants. The analysis of the project plans found that more specific evidence that reflected on the owner's initial expectations, and descriptions of the company's problems and visible evidence (such as the records of the interviews, questionnaires, and photos taken from their direct observation) were used by the consultants.

4. The impact of organisational size on the consulting practices at the preparation stage

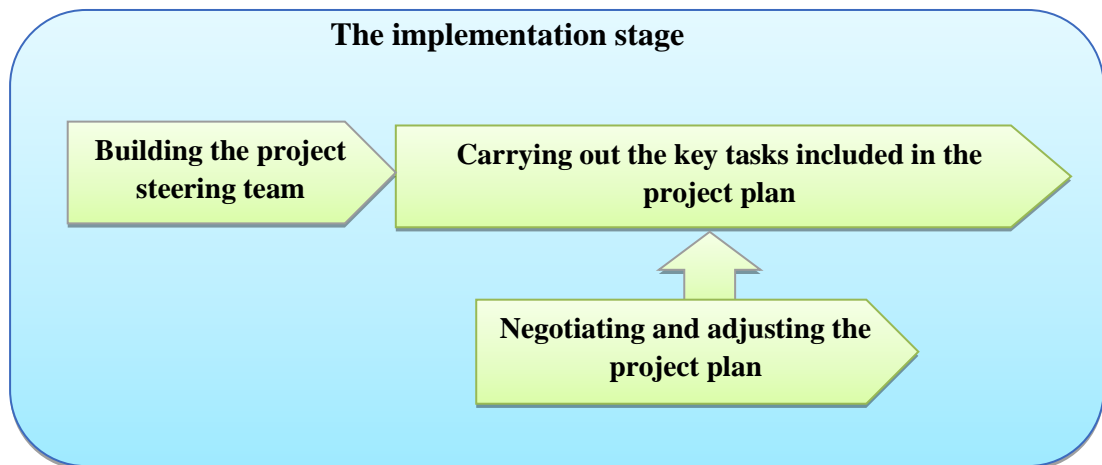
Since the owner kept a tight control over the expenditure of the consulting project, the consultants commonly identified the owner as the key client at the preparation stage. However, due to the low availability and quality of the company documents, and the low standardisation of the management and operations processes in these client organisations, there was a need for the consultants to involve both senior managers

and lower management layers (such as workshop directors and supervisors) at this stage. In addition, the high employee turnover rate in the client organisation also implied that the consultants needed to be more selective in terms of involving the lower management layers; for example, by involving the experienced supervisors rather than new operators.

6.2.3 The implementation stage

The project started to proceed to the implementation stage when the owner had formally signed the contract and approved the project plan. By interviewing the consultants, the owners, and senior and middle managers, and by examining the project progress reports written by the consultants, it was found that at the beginning of the implementation stage a project steering team that promoted, led, and monitored the implementation of the key tasks and activities was established in each client organisation. However, it is worth noting that, although the key tasks and schedules were documented in the project plan, it did not necessarily mean that the actual progress of the project firmly followed the plan. It was not unusual for the consultants to negotiate with the managers to adjust the plan when carrying out the key tasks. Figure 6.2 provides a summary of the implementation stage.

Figure 6.2 A summary of the implementation stage



Source: Developed by the researcher

6.2.3.1 Building the project steering team

As the owners in the client organisations had different expectations for the consultants' roles during the implementation of the project (see table 6.3), the structures of the project steering teams in these client organisations can be divided into two types: “*consultants in residence*” (i.e. consultants as senior managers who can make decisions during the implementation stage in Textile Ltd and Glass Ltd) and “*consultants as external advisors*”, who mainly provided suggestions and training to the managers and employees during the implementation stage (i.e. consultants in Autoparts Ltd, Fasteners Ltd and Nailguns Ltd). Table 6.10 summarises the managers and the key decision maker in the project steering team in each client organisation.

Table 6.10 The managers and the key decision maker in each project steering team

Type	Client organisation	Involved managers	Key decision maker
Consultants in residence	Textile Ltd	The senior consultant, two deputy general managers and production manager.	The senior consultant hired as the general manager
	Glass Ltd	The senior consultant, the general manager, one deputy general manager.	The senior consultant hired as the deputy general manager
Consultants as external advisors	Autoparts Ltd	Two consultants, the general manager, two deputy general managers and operations manager.	The general manager
	Fasteners Ltd	Two consultants, one deputy general manager, the production manager.	The deputy general manager
	Nailguns Ltd	Two consultants, general manager, one deputy general manager, the production manager.	The general manager

Source: Developed by the researcher

Consultants in residence (Textile Ltd and Glass Ltd)

The interviews with the consultants in Textile Ltd and Glass Ltd revealed that they were mainly responsible for developing and deciding the guidelines, policies, and rules for carrying out the key tasks and discussing them with managers in the project steering team. However, the consultants agreed that they can decide whether the feedback or suggestions should be integrated into the developed guidelines and whom the tasks should be assigned to.

When interviewing the senior and middle managers who were in the project steering team in Textile Ltd and Glass Ltd, they viewed their roles as “suggestion providers” and “executers”, and they felt comfortable with this consultant-led team structure. The main reasons for this “comfort” were threefold. First, they felt that they lacked sufficient knowledge of lean practices to guide the projects or make the decisions for the tasks. It may be argued that their knowledge base of lean practices would be developed throughout the projects. However, this linked to the second reason: they still believed that the consultants possessed more advanced knowledge and experience of lean practices, and even industrial work experience and, consequently, the consultants were more capable of managing the projects. The interviews with managers and the observation of the steering team meetings showed that they were more likely to follow or adapt to the consultants’ perspectives. Another reason related to the owner’s requirement. The owners in both companies clearly stated that the consultants can make decisions for the projects during the implementation stage. In this sense, from the other managers’ perspective, there was “nothing wrong” with executing the owners’ requirements.

From the consultants’ perspective, it was not easy to be a decision maker in the project steering team. They needed a solid and up-to-date knowledge base of the context of the company, its local environment, and the industry. For example, the senior consultant in Textile Ltd emphasised: *“not every consultant can do this job. For me, I have been in this industry for more than 20 years so I am familiar with the development and the situations of the textile industry. I have lots of experience of working in the companies that are similar to Textile Ltd. I know the way of its working. I am also quite familiar with the local market here including the job market.”* (The

senior consultant hired by Textile Ltd). Moreover, the consultants had to carry out the managerial tasks and project tasks simultaneously. From the minutes and the observation of the meetings between the consultants and the senior managers in both cases it was found that the meetings actually covered a wide range of topics, including the discussions of the project-related tasks and issues of their daily operations. Hence, both of them highlighted that it was important to consider all of the issues from the management's side. The senior consultant in Textile Ltd also said: *"the traditional logic for most consultants – we just provide you (i.e. managers) suggestions and it is the managers' business to consider whether these suggestions should be implemented and to what extent they should be implemented - cannot be applied here. Being a manager here means I need to think from a manager's perspective. I need to fully consider the status quo and the difficulties of the company and make sure the decision I have made is realistic and reasonable."* (The senior consultant hired by Textile Ltd)

Consultants as external advisors (Autoparts Ltd, Fasteners Ltd and Nailguns Ltd)

Similar to the consultants in Autoparts Ltd, the consultants in Fasteners Ltd and Nailguns Ltd were expected to act as external experts and advisors. The interviews with managers in the project steering teams in these companies showed that they agreed that the consultants proposed and drafted the materials in relation to the project tasks, such as guidelines for tasks, rules, or procedures. Managers in the project steering teams discussed these proposed materials and provided their comments, and the consultants revised and re-submitted the materials. The senior managers (such as the general manager or deputy general manager) finally decided whether the consultants' proposals and suggestions can be approved and adopted.

Like the consultants in Autoparts Ltd (in the pilot case study), the consultants in Fasteners Ltd and Nailguns Ltd deemed that they usually played an advisory role and the senior managers judged whether their advice should be undertaken. However, they also contended that, sometimes, the senior managers expected them to be more decisive when they felt they were not familiar with the project tasks. For example, it was common for the consultants to decide the content and approach of most training courses because the senior managers said that they did not have much previous experience of attending training.

The owner and the project steering team

The preliminary results from the pilot study showed that although the owner did not directly act as a member of project steering team in Autoparts Ltd, he still acted as the “*big boss*” who kept overall control of the consultants and managers in the project steering team in terms of the financial management and human resource management (e.g. change of senior and middle management team) during the implementation stage of the project. This was confirmed by triangulating the interviews with the owners, and senior and middle managers in the project steering teams, and the consultants in the four client organisations in the main studies. On the one hand, the owners in these client organisations did not expect that their busy agendas would be frequently interrupted and they believed that consultants could discuss the details with managers who were familiar with the day-to-day management and operations in their companies. On the other hand, the owners were keen to control the overall project progress and activities related to financial management (i.e. paying the consulting fees and other associated costs) and human resource management.

During the interviews, the consultants mentioned that they were required to submit the progress reports to the owners in their client organisations monthly to update their work. The owner decided whether the progress reports could be approved and whether the rest of the consulting fee should be fully paid. In this sense, it was crucial for the consultants to present the effort they made, the activities they conducted, and the achievements during the implementation stage in the reports to convince the owners that they had accomplished the tasks professionally.

The analysis of the progress reports found that, in addition to using positive words (such as “significant”, “considerable”, or “great”) to describe their current progress and the outlook of the projects’ future progress, the consultants generally preferred to use visuals (such as photos and pictures taken from the improved shop floor) and training courses or figures related to the operations performance (such as defects rate and the number of safety accidents on the shop floor) to show their achievements. The consultants agreed that visuals and figures were hard facts that made their reports look more objective, professional, and convincing. Therefore, their reports were less likely to be questioned by the owners. Table 6.11 summarises the roles of managers and the consultants in the project steering team, and the role of owner.

Table 6.11 The overall roles of the owner, managers and consultants

Primary roles		Consultants in residence (Textile Ltd and Glass Ltd)		Consultants as external advisors (Autoparts Ltd, Fasteners Ltd, Nailguns Ltd)	
		Managers' perspective	Consultants' perspective	Managers' perspective	Consultants' perspective
<i>Consultant as</i>	the decision maker	√	√ (but the consultant needed to report to the owner if the decisions related to financial management and change of management team)	---	---
	external advisors and experts	---	---	√	√ (but the consultants argued that sometimes they needed to play a more decisive role)
<i>Senior manager such as the general manager or the deputy general manager as</i>	the advisors	√ (sometimes more likely to just follow the consultant's decision)	√	---	---
	the decision maker in the project steering team	---	---	√ (but the senior manager needed to report to the owner if the decisions related to financial management and change of management team)	√
<i>The owner as</i>	the "big boss" who can control over the consultants and general manager in the project	√	√	√	√

Note: "---" means not mentioned by the interviewee

Source: Developed by the researcher based on the interviews with consultants, owner and managers in each client organisation

6.2.3.2 Carrying out the tasks

According to the interviews with the owner, senior and middle managers and employees in each client organisation, lean was a relatively new concept for them (see table 6.12). In this case, training managers and employees became an important part in the lean improvement projects in these client organisations.

Training managers and employees

During the implementation stage of the projects, a series of training courses were developed. Table 6.13 provides a summary of the key themes of these training courses in each client organisation.

Table 6.13 Key themes of training courses in each case

Key themes	Autoparts	Textile	Glass	Fasteners	Nailguns
Introduction of lean and the lean improvement project	√	√	√	√	√
The design of organisational structure and job analysis	√	√			
Job responsibilities	√	√	√		
Performance assessment		√	√		√
Quality control	√	√	√		√
Shop floor layout design				√	
6S	√	√	√	√	√
Work safety	√	√	√	√	√
Equipment maintenance	√	√			√
Visual management	√	√	√	√	√

Source: Developed by the researcher based on training materials obtained from each client organisation

Table 6.12 The owner, managers and employees' knowledge base of lean practices prior to the consultancy projects

Interviewees	Knowledge base of lean				
	Autoparts Ltd	Textile Ltd	Glass Ltd	Fasteners Ltd	Nailguns Ltd
The owner and senior managers	Attended some 6S-related training courses but were unfamiliar with other lean-related terms and practices.	Just heard of lean from social media but were unfamiliar with its terms and practices.	Gained some basic understanding about lean practices by visiting other larger glass manufacturers but were unfamiliar with its details.	Gained some basic understanding about lean practices – 6S from books, but were unfamiliar with its implementation.	Attended several lean related training courses organised by their customer but were unfamiliar with its implementation.
Middle managers	Attended just one or two training course of 6S; but some of them forgot the detailed content of these courses.	Most of them had no knowledge about lean practices.	Just heard of lean from social media or senior managers; were unfamiliar with its details	Just heard of 6S from their colleagues and senior managers; were unfamiliar with its details.	Just heard of lean practices from the owner and senior managers but were unfamiliar with its details.
Supervisors and operators	Did not attend the training course; just heard of 6S from other colleagues but unfamiliar with its details.	No knowledge about lean practices.	No knowledge about lean practices	A few of them heard of 6S from senior managers and other colleagues but most of them had no knowledge about 6S.	No knowledge about lean practices.

Source: Developed by the researcher based on interviews with the owner, senior and middle managers and employees in each client organisation

By interviewing the consultants, and managers and supervisors, as well as observing the training courses, it was found that the level of attendees varied according to the themes of the training courses. When the training courses linked to changes at an organisational level (such as organisational structure and job responsibilities) the attendees were limited to the senior and middle management (including workshop directors) levels and the owners attended when they were available. When the training courses focused on the use of specific lean practices on the shop floor, such as the use of 6S and visual management, the attendees extended to the employee level (supervisor level).

The consultants deemed that training the managers and employees was not a simple task. They commonly mentioned three key issues related to training. The first issue was the design of the content included in the training course. The consultants agreed that it was crucial to make the content (particularly those focused on lean practices on the shop floor) more practical and relevant to the day-to-day operations of their client organisations. The interviews with both senior and middle managers in the client organisations showed that the *ad hoc* training courses with real-life examples from their industry or similar companies were more favoured than training courses with generic case examples. The supervisors also showed their interests in case examples during interviews and it seemed that they were more willing to see case examples directly from their companies or from real life.

The second issue related to the use of common language to interpret the content of the training courses. The consultants contended that there was a need to use language that

was familiar to the managers and employees in the client organisations. The interviews with managers and employees in these client organisations showed that simple and plain language that linked directly to their daily work was more favoured during training.

Dealing with these two issues required the consultants to have a substantial knowledge of the client organisations' context. Similar to the consultants in Autoparts Ltd in the pilot case study, the consultants in the four client organisations (Textile Ltd, Glass Ltd, Fasteners Ltd, and Nailguns Ltd) agreed that it was necessary to involve middle managers and experienced employees in the development and delivery of training courses. Since the level of standardisation and documentation of the current management and operations processes in these client organisations was quite low, the consultants believed that it was difficult for them to gain an in-depth understanding of the client organisations' context (particularly their current operations management on the shop floor) within a short period of time without the support from middle managers (such as workshop directors) and experienced employees (such as supervisors). The interviews with the consultants, and middle managers and supervisors showed that the degree of the middle managers' and employees' involvement varied across these client organisations.

Consultants in residence (Textile Ltd and Glass Ltd)

In Textile Ltd and Glass Ltd, both of the consultants possessed substantial work experience in the same industry. Hence, they were familiar with the operations,

working environment, and technical terms and jargon in their client organisations. Since they were both employed as senior managers, they had good access to sensitive information (such as sales, technological and financial information) and the workplace (such as the shop floor) in their client organisations. In addition, when carrying out their managerial tasks, they were able to obtain the most up-to-date contextual information from other managers and employees. In these cases, the consultants said that they were confident to develop and deliver the appropriate training courses to the managers and employees and, in most cases, the development and delivery of the training courses were decided by them.

The observation of the training courses in these two client organisations found that these were usually delivered by the consultants. The interviews with middle managers showed that, in most cases, they acted as advisors who checked or adjusted the training materials that had already been developed by the consultants. However, the feedback of the training courses given by the managers and employees in these two client organisations was quite positive. Some middle managers in Textile Ltd stated they were amazed and impressed by the training courses because they were easy to understand and fitted into their daily work well.

Consultants as external advisors (Autoparts Ltd, Fasteners Ltd, and Nailguns Ltd)

In Autoparts Ltd, Fasteners Ltd, and Nailguns Ltd, the consultants lacked the experience of working or consulting in similar industries to their client organisations. Unlike the consultants in Textile Ltd and Glass Ltd, these consultants were positioned

as external experts and advisors in these three client organisations, and their accessibility to the information in their client organisations was limited. For example, they were unable to attend the senior management or middle management meetings unless they were invited and they could not get updated reports about what was happening on the shop floor unless they proactively asked for them. Hence, the consultants in these three client organisations contended that it was too difficult to develop appropriate training materials by themselves and they argued that middle managers (such as workshop directors) and employees (such as experienced supervisors) should be involved in the process of developing the training materials (e.g. discussing overall structure of the training courses, the case examples, and language used in the training materials) and, sometimes, the delivery of the training courses.

As documented in the pilot case study in Autoparts Ltd, the consultants co-developed the training materials with the operations manager. The second visit to Autoparts Ltd found that, in addition to the operations manager, other middle managers (such as workshop directors) were also involved in the process of developing training materials. Instead of letting the middle managers deliver the training, the courses were co-delivered by the consultants and middle managers - the consultants introduced and outlined the basic concepts of lean practices and the middle managers were invited to present more detailed case examples from their daily work. The consultants argued that their knowledge base of the context increased as the project went on and the middle managers wanted to reduce their workload preparing the training courses. In addition, the senior consultant argued that not every middle manager was willing to participate in delivering training courses because some of them argued that the

consultants were the experts and should deliver the training. Some of the middle managers also concerned that they would lose face in front of their employees if they were unable to interpret the training materials correctly. The overall feedback from the middle managers and supervisors showed that they generally believed that the content and the language of the training courses was improved considerably compared to the first two training courses.

In Fasteners Ltd, the senior consultant acknowledged the differences between his knowledge base and the managers and supervisors', as well as the difficulty of improving his knowledge base within a short period of time. In this sense, he chose another approach - a "*going out*" approach (the term used by the senior consultant), which aimed at involving the managers and employees to co-develop some common experience and language. Take the training course of visual management as an example. The consultants organised a trip to the supermarket for the managers and some supervisors. During the trip, the managers and supervisors were encouraged to observe how the supermarket visualised its products and layout, as well as the benefits of visualisation. They co-developed their own language to describe the visual management - "*big tag*" (referred to the visual boards) - during this trip and the words "*big tag*" were later used widely throughout the whole company. The workshop directors and some experienced supervisors were also involved in the development of the training materials by giving their ideas of how to use "*big tags*" in their workshops.

The observation of the training courses and materials found that, instead of conceptually and mechanically introducing the definition and meaning of visual

management, the content and the language of training course became more practical by directly using the word “*big tag*” and linking its use to the managers and supervisors daily work. The consultants mentioned that the “*going out*” approach provided them with more opportunities to develop common topics and language with managers and, particularly, supervisors. The feedback from managers and supervisors was very positive. They believed that this trip was a special and impressive experience because it provided a real-life and easy-to-understand example of the use of “*big tag*”.

In Nailguns Ltd, the senior consultant also realised that they had to adjust the training agenda and re-design the content because the managers and employees wanted more specific and practical examples in their industry to be included in the training. In this case, they postponed the training course to give them more time to prepare while they attempted to find more opportunities to discuss the possibilities of using lean practices with the workshop directors before the training. Several meetings were held between the consultants and workshop directors to discuss the content (e.g. what practical and up-to-date examples on the shop floor should be included) and the delivery of training (e.g. whether workshop directors would like to present their ideas and perspectives of using lean practices during training). The interviews with the consultants and workshop directors found that, on the one hand, they agreed that the discussion meetings increased the managers’ engagement in the training course and enriched the consultants’ understanding of Nailguns Ltd’s context (e.g. layout of the workstations, the employees’ daily jobs). On the other hand, some workshop directors felt uncomfortable about delivering the training because they believed that the consultants as the seniors had a more advanced knowledge of lean practices. The overall feedback from interviewed managers and supervisors about the training courses was generally

positive. Although sometimes they still felt the language used by the consultants was abstract, in most cases they believed that the content included in the training materials fitted well with the company's context.

The third key issue was the assessment of the attendants' understanding of the content of training. The consultants in Textile Ltd, Glass Ltd and Nailguns Ltd adopted examinations to regularly test the attendants' understanding of the content included in the training courses. The examination questions ranged from open questions (e.g. how do you think 6S can be applied in your workshop) to closed questions (e.g. true or false questions). If the attendees failed the examination, then they were required to review the training materials and re-do the examinations. From the consultants' perspective, these examinations could assist them to know whether there was any difficulty for the attendees to understand the content of training, and to facilitate them to review and think about the content of training (e.g. the use of lean practices). From the managers' perspective, they agreed that the examinations actually enabled them to think about the use of lean practices carefully after the training.

In Autoparts Ltd and Fasteners Ltd, the consultants said they would like to hold an informal discussion with the attendees after the training courses. They believed this would help them to evaluate the level of understanding of the training materials. However, they admitted that the discussions were occasional and there was no guaranteed frequency. The interviews with managers and the observation of training courses showed that not every attendant had the opportunity to chat with the consultants after training and some middle managers felt that there was a need to build

a formal feedback system to better evaluate and facilitate their communication with the consultants.

Changing the policies, rules, and procedures

The interviews with the consultants, and managers and employees, the project documents, and the observation of the project steering team meetings showed that changing the current policies, rules, and management or operations procedures constituted an important part in all of these five investigated consultancy projects. Table 6.14 provides a summary of the changed policies, rules, and procedures in these five client organisations. The interviews with senior managers, middle managers, and consultants and the observations of the project steering team meetings in these client organisations found that there was a consensus between managers and consultants in terms of the importance of changing rules, policies, and procedures.

Table 6.14 A summary of the changed policies, rules and procedures in each client organisation

Policies, rules and procedures	Autoparts	Textile	Glass	Fasteners	Nailguns
Job responsibilities for managers and employees	√	√	√	√	√
Policy and rules for performance assessment	√	√	√	√	√
Rules for shop floor management	√	√	√	√	√
Standard operations procedures	√	√	√	√	√
Procedures for warehouse management	√	√		√	√
Rules and procedures for equipment operations and maintenance	√	√			√
Rules for work safety	√	√	√	√	√
Quality control procedures	√	√	√		√

Source: Developed by the researcher based on the project documents (e.g. project progress reports and hard copies of these policies, rules and procedures)

The importance of changing rules, policies, and procedures

First, both managers and consultants believed that these rules, policies and procedures could enhance the legitimacy of the application of lean practices in these client organisations. Once the rules, policies, and procedures were issued, it clearly meant that managers and employees must comply with them. If they decided not to, and procedures, then they would be punished by losing part of their salary. A typical example was the changes in the performance indicators across these client organisations. By examining the rules of performance assessment, it was found that indicators such as “organised workstation” (i.e. whether the workstation followed 6S requirements), “safe operations” and the quality of the products became common indicators to measure the performance of operators in these client organisations. It

meant that these operators must satisfy the standards of 6S to gain their salary. As argued by the senior consultant hired by Autoparts Ltd, one embarrassing issue during lean implementation was that “*people may treat the lean improvement project as something that was optional to do rather than something that must be done*”. Similarly, the consultants and managers in other client organisations agreed that it would be problematic if there was no mechanism to ensure that the application of lean practices was compulsory and legitimate as some managers and employees may not care about the use of lean practices, such as 6S and visual management.

Second, the rules, policies, and particularly procedures could regulate the managers and employees behaviour by stipulating how the jobs should be done (particularly on the shop floor). As shown in table 6.13, the procedures of operations, equipment maintenance, and quality control were developed during the implementation stage of lean improvement projects. For example, the procedure of equipment maintenance clearly depicted how one particular machine should be maintained and checked before, during, and after operations. The checklist for the maintenance of each machine was also included in the procedure. In this sense, the operators could accomplish their daily jobs in a consistent and standardised manner.

Moreover, the changes in the rules, policies and procedures enabled some long-existing practices which were inappropriate to lean practices to be abandoned or at least to be challenged. During the interviews, some long-standing operations practices, including poor working habits (e.g. using untidy and poorly maintained machines or workstations, using tools without sorting them out), quantity pursuing practices (i.e.

focusing solely on the volume of products), and experience based practice (i.e. managing operations solely based on one's experience without the guidance of standardised procedures) that caused quality and safety issues or, potentially, customer dissatisfaction were commonly acknowledged by the managers and consultants in these case companies. The consultants consistently argued that while "*the soft hand*" (i.e. the term used by the senior consultant hired by Glass Ltd, which meant changing employees' mind-set) such as training courses could enhance the managers and employees' understanding of the benefits of lean practices and costs of their old practices, some employees and managers still resisted changing their way of working. For example, although the dangers of bad working habits were explained during the training courses, the consultants and managers argued that some operators still preferred to leave their workstation disorganised because this had been their way of working since they joined the workshop. In this sense, they agreed that "*the hard hand*" (i.e. the terms used by the senior consultants hired by Glass Ltd, which meant issuing policies and rules to change employees' behaviour) such as changing the performance assessment criteria could accelerate the pace of abandoning their bad working habits.

Finally, once these rules, policies, and procedures were issued and implemented, they would not be influenced by the personnel turnover. A common concern among the senior managers in these client organisations was how the application of lean practices could be maintained after the consultants had left. These rules, policies and procedures enabled the implementation of lean practices to be maintained in these client organisations, even once the consultants had left.

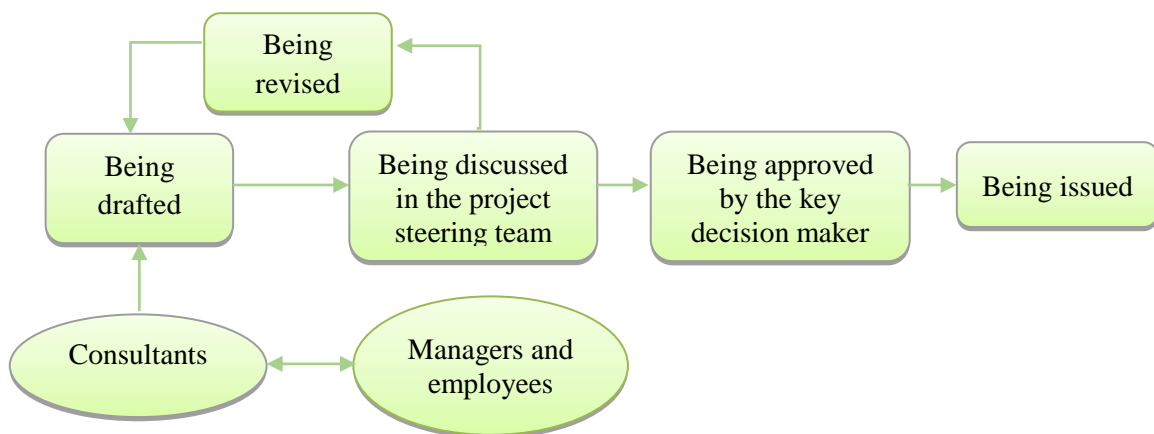
The consultants were also commonly concerned about the managers' over-reliance on them (particularly in Textile Ltd and Glass Ltd, where the consultants were employed as senior managers and could make decisions for most of the managerial and project related tasks). The consultants believed that most of the managers did not possess a good knowledge base of management methods because many of them lacked experience of higher education and they did not have many opportunities to attend training. During the project, the consultants were normally positioned as experts and there was a risk for the managers to over rely on the consultants' solutions or advice. The interviews with senior managers and middle managers confirmed the consultants' argument. Most managers believed that the consultants must be professionally trained and very experienced in using lean practices and, thereby, they argued that the consultants were more capable of providing advice or even make decisions. The consultants agreed that establishing relevant rules, policies, and procedures was essential in terms of maintaining lean implementation in the client organisations after the projects.

The process of changing rules, policies, and procedures

Changing rules, policies and procedures was not an easy task. The interviews with consultants and senior managers showed that rules, policies, and procedures should be discussed in the project steering team meetings and approved by the key decision maker in the project steering team before being issued. During the interviews, the consultants said that they were required to draft the rules, policies, and procedures. To ensure that the drafted rules, policies, and procedures could fit into the client organisations' context, the consultants commonly highlighted that it was essential for

them to possess sufficient contextual knowledge of their client organisations and involve different internal stakeholders including the owners, senior managers, middle managers, and even supervisors that in most cases were highly visible to them due to the flat organisational structures in these client organisations in the process of drafting the rules, policies, and procedures. In addition, they also stressed that it was necessary to list the evidence underpinning the drafted rules, policies, and procedures to ensure that they could gain more consensus from and convince other members in the project steering team. Figure 6.3 shows the process of changing rules, policies, and procedures.

Figure 6.3 The process of changing rules, policies and procedures



Source: Developed by the researcher based on the interviews with consultants and senior managers

However, by analysing the data from interviews with consultants, owners, managers, and employees, and observing the project steering meetings and project documents, it was found that the level of internal stakeholders' involvement and the level of evidence required to convince the project steering team differed across these case companies.

Consultants in residence (Textile Ltd and Glass Ltd)

In Textile Ltd and Glass Ltd, the consultants had extensive work experience in the textile industry and glass manufacturing, respectively, and they were familiar with the technologies, machines, industrial standards, management and operations processes that were generally used by textile manufacturers and glass manufacturers, respectively. Additionally, the managerial tasks that they carried out further enhanced their knowledge base of their client organisations. Despite their high level of familiarity with the client organisations' context, they contended that this did not necessarily mean that they could make rules, policies, and procedures without the support of managers or experienced employees. Given the low quality and availability of documentation, as well as the low level of standardisation of current operations processes in these two client organisations, the consultants mentioned that they needed to check and communicate with workshop directors and experienced supervisors who were more familiar with technologies and operations on the shop floor when drafting the procedures (e.g. operations procedures and equipment maintenance procedures).

The interviews with senior and middle managers showed their involvement in drafting the procedures or rules was limited to check and adjust the procedures and rules that had been drafted by the consultants. The senior and middle managers in these two client organisations agreed that, in general, they simply checked whether the procedures like operations or equipment maintenance procedures written by the consultants were consistent with the status quo of the operations on the shop floor and, sometimes, they provided their advice on the specific parts of the procedures (e.g. maintenance on one particular type of machine). During the interviews, the senior and

middle managers said that they were satisfied with the quality of the drafts made by the consultants and they believed that the consultants were very proficient in textile manufacturing and glass manufacturing, respectively.

Since both of the consultants were the key decision makers in the project steering teams, they had the authority to decide whether the drafted rules and policies or procedures could be approved. During the interviews, the senior managers and consultants mentioned that normally the discussion meetings were brief and the feedback for the drafts was positive. In this sense, in most cases, the processes of discussing, approving, and issuing the rules, policies, and procedures were very efficient. However, they both pointed out that they still needed to list some general evidence to show the extent to what the drafted rules, policies, and procedures could be applied in their client organisations, for example, providing a brief summary of the effort and activities that were undertaken by the consultants and middle managers while drafting the rules and procedures.

Consultants as external advisors (Autoparts Ltd, Fasteners Ltd and Nailguns Ltd)

Compared to the consultants in Textile Ltd and Glass Ltd, the consultants in Autoparts Ltd, Fasteners Ltd and Nailguns Ltd seemed to be struggling more in terms of revising the drafts and convincing the key decision makers and other members in project steering teams. The consultants in these three client organisations had a limited knowledge of their clients' context because they lacked work experience or conducting lean improvement projects in similar client organisations. It may be argued that the consultants' knowledge base of their client organisations' context was improved during the preparation stage, but the consultants pointed out that they were unable to capture detailed information about the technology and operations as well as management on the shop floor due to the time limitation during the preparation stage.

In addition, the consultants commonly indicated that it was too difficult to quickly become familiar with the operations on the shop floor in their client organisations by themselves because the management process on the shop floor was very informal. They all emphasised that it was critical to work closely with middle managers (such as the operations/production manager, the warehouse manager, workshop directors, and sometimes experienced supervisors) in their client organisations who were more familiar with their working processes and environment.

The interviews with middle managers and supervisors showed that their involvement in drafting the procedures or rules was much higher than that of the managers in Textile Ltd and Glass Ltd. Instead of solely checking and finding the mistakes in the

drafts, the middle managers and sometimes supervisors said they needed to co-develop the drafts (particularly the rules of work safety, and procedures of operations and equipment maintenance) with the consultants. Substantive discussions about the shop floor management between the consultants and the middle managers (such as workshop directors) were needed at this stage. The consultants felt that it was necessary for them to jointly work out the drafts with middle managers through discussing to what extent the lean practices could be operationalised on the shop floor and what kind of language (i.e. jargon or language that was familiar to the employees) should be used. The workshop directors said that they had spent a lot of time in explaining and clarifying the technical terms and operations processes or environment on the shop floor to the consultants, and the consultants had explained their ideas on work safety or layout design to them. Most of the interviewed operations/production managers, workshop directors, and warehouse managers felt that the discussions helped them to understand the consultants' language and ideas of using lean practices.

Unlike the consultants in Textile Ltd and Glass Ltd, the consultants in these three client organisations played an advisory role. In other words, they were unable to decide whether the drafted rules, policies, and procedures could be approved and the senior manager, who acted as the key decision maker in the project steering team, made the decision. If the senior manager was dissatisfied with the drafts, then the consultants were required to spend more time in revising them, which further increased the risk of delaying the progress of the whole project. The consultants agreed that it was important to convince the senior manager to accept their drafts as quickly as possible and they generally suggested that extensive evidence should be given throughout the project steering meetings to enhance the legitimacy of the drafts; for example, by

listing the discussion meetings they had with middle managers or experienced supervisors, and showing the connections between the drafts and the industrial standards or policies and regulations issued by the government. From the senior managers' perspective, they commonly mentioned that they were more willing to accept the drafts that were practical and could be directly linked to their own context. For example, in one of the observed project team meetings in Fasteners Ltd, the deputy general manager complained that the rules and procedures for work safety proposed by the consultants were still too broad, even though the consultants employed many terms and standards issued by the government. He then suggested that the consultants should discuss with the workshop directors.

The consultants hired by Autoparts Ltd and Nailguns Ltd also contended that, for some sensitive rules or policies that may affect managers and employees' salary (such as rules and policies for performance assessment), it was necessary to involve the owner or general manager in the drafting process. The reasons for this were twofold. First, the involvement of the owner and senior managers could enable the consultants to gain a more comprehensive understanding of the overall management and operations processes to ensure that the drafted rules and policies were realistic to their client organisations. Second, the involvement of the owner or senior managers also enabled the consultants to build a shared understanding and agreement with them during the discussion meetings. Given the central role played by the owner in the company, or the senior manager in the project steering team, it was less likely for the drafts to be questioned by other members of the project steering team.

Diffusing lean practices in the organisation

As discussed in the previous section, rules, policies and procedures were developed and issued during the implementation stage of these lean improvement projects. The employees were asked to learn and practise them accordingly. By observing the shop floor, it was found that bulletins, posters, photos and pictures were commonly used in these client organisations to visualise these newly issued rules, policies, and procedures. Bright colours and alert symbols were also used to attract employees' attention. Most interviewed employees mentioned that these visuals could remind them of the costs or dangers (e.g. safety accidents and quality issues) of their old and inappropriate practices (which were also mentioned in the training courses). In addition, according to the interviews with consultants and managers, as well as the project progress reports, other learning activities (such as regular discussion meetings, small study groups, experience sharing meetings and on-site training) were carried out in each client organisation.

In Autoparts Ltd, evening meetings between the workshop director and supervisors were held three times per week to study the new procedures, particularly the changes in their daily work (e.g. need to tidy the workstations daily or need to check the machines before and after operating) and performance assessment criteria. The interviews with the workshop directors and supervisors showed that detailed and specific discussions of their daily work (e.g. how their workstations can be cleaned and sorted, which toolkits should be kept and which should be abandoned, and who should be responsible for cleaning or organising etc.) would be covered and the

supervisors could also discuss the benefits or difficulties when practising these new rules or procedures.

Some small study groups were established within the workshops in Textile Ltd. The small study groups mainly consisted of supervisors and their operators. They studied the new rules and, particularly, procedures and discussed what they should do to better meet the requirements from these new rules and procedures. They also shared their experience of practising the new procedures and rules (e.g. useful tips for maintaining and operating machines or the quickest way to sort out the workstations). The workshop directors, operations manager, and even senior managers joined these study groups occasionally to get feedback on the new rules and procedures, such as the difficulties faced by the operators when understanding and practicing the new procedures or their suggestions and comments to the new procedures in particular. Regular meetings between senior managers and middle managers were also held to update the feedback they collected from the study groups and to discuss the relevant reactions. On-site training (such as equipment maintenance training and safety operations training) was also conducted by the workshop directors or experienced supervisors to further assist the application of lean practices.

Similarly, in Glass Ltd, the task of studying these new rules and procedures was added to the weekly meetings that were held between the workshop directors and supervisors. During the meetings, the workshop directors and supervisors would explain and communicate their understanding of the use of lean practices or new procedures and rules. Monthly meetings were held between the senior managers and operations

managers, as well as between the different workshop directors, to discuss the benefits, difficulties, and the suggestions of implementing these new rules and procedures on the shop floor. In Fasteners Ltd and Nailguns Ltd, regular meetings were also held between the senior managers, middle managers, and employees to communicate and share their useful experiences of the use of lean practices on the shop floor, as well as to comment on the newly issued rules and procedures.

Some useful feedback emerged from these learning activities, which further contributed to revising the issued rules, policies, and procedures. However, the feedback led to a critical issue - Who exactly was responsible for revising the issued rules, policies, and procedures? The answer from the senior managers and consultants was straightforward enough - the issued rules, policies, and procedures should be revised by the person who had drafted them. Since the consultants were the main actors who drafted these rules and procedures, in theory they should get access to the feedback as soon as it was received so that they could then start to revise the rules or procedures based on the feedback. However, the interviews with managers and consultants showed that the consultants' accessibility to the feedback differed across these five case companies.

In Textile Ltd and Glass Ltd (i.e. consultants in residence), the consultants acted as the senior managers and, thereby, they had more opportunities to directly receive or get access to the feedback, including walking around the workshops to observe or chat with the supervisors and operators, organising regular meetings to listen to the reports from middle managers, and directly joining the learning activities on the shop floor.

The collected feedback would then be sorted and discussed among the members of the projects, and the revision of the rules and procedures could be completed quickly.

In Autoparts Ltd, Fasteners Ltd, and Nailguns Ltd (i.e. the consultants as external advisors), the consultants contended that it was not easy for them to directly gather the feedback because they needed to obtain permission of the workshop directors before coming onto the shop floor and also because they could not attend the regular meetings among senior managers or middle managers unless they were invited. Moreover, the senior managers or middle managers did not have the responsibility to proactively report the feedback to the consultants. In other words, there was no guarantee of the extent to which they could directly receive feedback from middle managers or front-line employees after the procedures or rules were practised. For example, both of the consultants in Fasteners Ltd and Nailguns Ltd were concerned that if they could not directly talk with front-line employees, then they may miss some valuable points for the revision of the rules and procedures. Hence, they needed to be more active in terms of negotiating the access to the shop floor and finding out other opportunities (in addition to project team meetings) to communicate with senior or middle managers. The consultants in Autoparts Ltd also stressed that they had difficulty in receiving timely feedback due to their limited accessibility to workshops or internal documents while they were also under pressure to accomplish other tasks.

6.2.3.3 Negotiating and adjusting the project plan

Although the consultants contended that they had made many effort to ensure that the actual progress could be consistent with the project plan, the interviews with the consultants and the examination of the project progress reports and project final reports showed that it was common for the consultants to ask for changing the sequence and the schedule of the tasks. For example, in Fasteners Ltd and Nailguns Ltd, changing the managers and employees' job responsibilities was not included in their project plans. However, during the implementation stage, the consultants recognised that it was important to ensure that the managers and employees' job responsibilities were aligned with their performance assessment criteria. Therefore, changing the job responsibility was added into their initial project plans. Similarly, in Autoparts Ltd, the consultants said that since they spent so much time in working with senior and middle managers to revise the rules, policies, and procedures at the beginning of the project, there was a need to extend the initial schedule. In Textile Ltd and Glass Ltd, although the project progress was generally consistent with the initial plans, the consultants also mentioned that it was common to adjust the sequence of the tasks during the implementation stage.

The consultants deemed that negotiating with the decision makers (such as the owner and senior managers) to adjust the initial plans was not a straightforward task. They needed to justify the reasons or evidence to change the initial plans and it took extra time for the changes to be approved. The interviews with consultants, the owners, and senior managers indicated that the evidence required by the senior managers to change

the initial project plan and the time spent on negotiating the adjustment of plans differed across these case companies.

Consultants in residence (Textile Ltd and Glass Ltd)

In Textile Ltd and Glass Ltd where the consultants acted as the key decision makers in the project steering teams, the consultants mentioned that, in most cases, they were able to directly decide the change of the sequence of tasks without waiting for other senior managers' decisions. However, these consultants also argued that this did not necessarily mean they could make decision without any justification. They still needed to provide some brief explanations to show why the sequence of tasks must be changed. For example, in Textile Ltd, the consultant mentioned that he noticed that the defects rate in some workshops was higher than in previous months and this increased the risk of delaying the product delivery schedule. Therefore, he used the increasing defects rate as evidence to show why making quality control process and standardised operations procedures should be done as soon as possible. In Glass Ltd, the consultant stressed that it was helpful to provide some hard and visible evidence (such as photos from workshops) when discussing a change of tasks with other managers in the project steering team because this evidence was more objective and persuasive.

The interviews with the owners in these two client organisations showed that in most cases they would not directly intervene with how the sequence of tasks was changed but they did require the changes to be summarised in a monthly process report. Both of the owners agreed that the consultants were very professional because they could

easily see the rationales underpinning the changes. The senior managers said that, in general, they would like to just follow the consultants' decisions because the consultants were more professional than themselves and were the key decision makers.

Consultants as external advisors (Autoparts Ltd, Fasteners Ltd and Nailguns Ltd)

As advisors and external experts, the consultants in Autoparts Ltd, Fasteners Ltd and Nailguns Ltd commonly contended that it took them more time to wait for approval from senior managers in terms of adding new tasks or changing the schedule of the tasks. To ensure that the approvals could be obtained as quickly as possible, the consultants suggested that solid and substantial evidence for the changes of tasks was needed.

During the interviews, the consultants commonly mentioned that the reason or evidence given to the changes of the tasks should be as objective as it could be; for example, figures related to the operations performance or customer satisfaction, a record of observations on the shop floor, or photos taken from the work place. The consultants believed that this could show the logic of adjusting the project plans and minimised the risk of offending the other managers. Additionally, the consultants agreed that an emphasis on the potential benefits of changing the tasks was also necessary to convince the owners or senior managers. The senior consultant hired by Autoparts Ltd further pointed out that the potential benefits should not be over-amplified because this may destroy the positive impression of their work at the preparation stage. The owners and senior managers in these three client organisations

said it was understandable for the project plan to be changed because some unpredictable issues would emerge during the implementation stage. However, they agreed that they would like to see reasonable explanations in terms of changing the project plans.

6.2.3.4 Summary of the implementation stage

Table 6.15 summarises the key themes identified from the implementation stage.

Table 6.15 Key themes identified from the implementation stage

No.	Key themes
1.	The clients' view: expert perspective on the role of consultants.
2.	Evidence-based consulting practice.
3.	Learning of lean practices at different levels in client organisations.
4.	Abandonment of the existing practices.
5.	The impact of organisational size on the consulting practices at the implementation stage.

Note: No priority is implied by the order in which these themes are presented.

Source: Developed by the researcher

1. The client's view: the expert perspective on the role of consultants

The consultants were viewed as the experts during the implementation stage of the projects. The senior and middle managers in the project steering team believed that the consultants were capable to decide or provide advice about the implementation of lean practices. For example, in Textile Ltd and Glass Ltd (i.e. consultants in residence), the consultants acted as the senior managers and they were even expected to decide on project tasks and carry out managerial tasks. The managers felt comfortable with

the consultant-led team structure because they believed that the consultants had more advanced lean-related knowledge and contextual knowledge of their industry. In Autoparts Ltd, Fasteners Ltd and Nailguns Ltd (i.e. the consultants as external advisors), the consultants were positioned as external advisors and experts. Although the consultants did not possess substantial experience of working in industries or companies that were similar to their client organisations, the managers in the project steering teams still believed that the consultants were more experienced in terms of carrying out lean practices and providing training.

2. Evidence-based consulting practice

During the implementation stage, the consultants needed to convince the senior managers in the project team to agree with, or approve of, their drafted rules and procedure and, sometimes, their advice on the adjustment of the pre-developed project plan as quickly as possible. In addition, the owner who monitored the overall progress of the project had the authority to decide whether the rest of the consulting fee could be fully paid. In this sense, it was also critical for the consultants to convince the owner. Similar to the preparation stage, the consultants used specific evidence to show the effort that they had made during the implementation stage (e.g. records of activities that were carried out by the consultants to accomplish the tasks, the photos taken from the shop floor to show the visible improvements). Although listing the evidence to convince senior managers in the project steering team was important to the consultants, it was worth noting that the level of evidence provided by the consultants differed from case to case. When the consultants played a decisive role in the project steering team, they only needed to mention some general evidence underpinning their ideas or

decisions because in most cases they were able to directly decide what to do in the projects. When the consultants play an advisory role, they felt that there was a need to provide extensive evidence to ensure that their ideas and advice could be approved by the senior manager in the project steering team as soon as possible.

3. Learning of lean practices at different levels in client organisations

Since many of the managers and employees were unfamiliar with lean practices, they needed to learn and understand the meaning of these lean practices during the implementation stage. The main results showed that building a shared understanding of lean practices between consultants and their clients (such as managers and employees) was not an easy and straightforward task. In order to interpret lean practices by the use of common language that was accessible to the managers and employees and to make their advice on the implementation of lean practices more suitable to their client organisations, the consultants contended that there was a need for them to possess a sufficient knowledge base of the client organisations' context. The managers and employees were familiar with the daily operations in their organisations but they were inexperienced in terms of conducting lean practices. Hence, when designing and delivering training or making rules and operations procedures, there was a need for the consultants to involve different internal stakeholders, including senior managers and lower management layers such as workshop directors and experienced supervisors who had more experience of working on the shop floor.

In addition to building a shared understanding of lean practices between the consultants and clients, lean practices should be embedded into the rules and procedures of the client organisation (i.e. institutionalising lean practices). The case studies showed that a number of rules and procedures related to lean practices were issued in these client organisations. These rules and procedures enabled the lean practices to be regularly undertaken in these client organisations and facilitated lean practices to be better maintained in these client organisations after the consultants had left.

Another critical issue emerged from the project implementation stage was how to receive the employees' feedback on the newly issued rules and procedures timely fashion. It was observed that the consultant and managers' accessibility to the employees' feedback relied on the extent to which they could physically enter the shop floor and join the discussions between employees. Hence, there was a need to establish a formal feedback system between the consultants and internal stakeholders, particularly the lower management layers.

4. Abandonment of the existing practices

The main case studies found that, when implementing lean practices in these client organisations, some existing practices that were inappropriate to lean practices (such as poor working habits, quantity pursuing practices and experience based practices) also needed to be abandoned, or at least be challenged. The consultants generally used both a "*soft hand*" and a "*hard hand*" to challenge these old and inappropriate practices.

On the *soft hand's* side, they focused on enhancing the employees' cognition of the danger and costs of the old practices through training and the use of visuals. On the *hard hand's* side, they suggested that using rules and procedures to enforce the employees to undertake lean practices was necessary because it was not easy for these long-existing old practices to be abandoned within a short period of time.

5. The impact of organisational size on the consulting practice at the implementation stage

Although, in general, the senior manager or the consultant acted as the key decision makers in the project steering team, what should not be underestimated was the role of the owner. The owner kept a tight control over the organisation's financial management, sales, and human resource management and, therefore, in the project the owner still acted as the "*big boss*" who kept overall control of the project's progress and project expenditure.

The consultants commonly believed that it was crucial for them to be actively involved with the internal stakeholders (particularly lower management layers, such as workshop directors and experienced supervisors) who were generally highly visible to the consultants due to the flat structure of these client organisations in the project implementation stage. Since the documentation and standardisation of the current management and operations processes were relatively low in these client organisations, it was difficult for the consultants (particularly those who lacked experience of working or conducting lean improvement projects in the companies that were similar

to the client organisations) to understand their clients' context quickly and comprehensively. In addition, the main case studies also showed that many managers in these client organisations did not have a good knowledge base of the management methods and tools, they were more likely to rely on, or sometimes over rely on, the consultants (who they thought were professionally trained and very experienced in doing lean improvement projects) to give them advice or make decisions.

6.2.4 The results assessment stage

As discussed in the previous section, the consultants interacted with different internal stakeholders (including the owner, senior managers or middle managers) within the project steering team and even other middle managers and employees during the implementation stage. However, when the project moved to the final stage, the results assessment stage, the owner was the key client to the consultants. The consultants pointed out that the owner decided whether the consulting fee should be fully paid to the consulting company. The senior managers in these client organisations also agreed that the owner made the decision to pay the rest of the consulting fee, and to renew or extend the contract with the consulting company.

While it was easier for the consultants to identify the key client during the results assessment stage, it seemed more difficult for them to justify the achievements that the projects made. The basic rule for the consultants to report the achievements was to follow what was included in the project plan and the contract. However, both the owners and the consultants in these cases companies admitted that neither the contracts nor the project plans explicitly identified the specific criteria (such as the level of cost reduction or quality improvement) to measure the performance of the consultancy projects. Hence, the methods to assess the achievements in these consultancy projects became more flexible and subjective.

By examining the final reports and PowerPoint slides used in the final presentation, as well as the follow-up interviews with the consultants and managers, some trends for

reporting the results can be found. First, the owners' expectations were always highlighted at the beginning of the reports or presentation to show the legitimacy of the tasks included in the projects. Second, the positive results were always emphasised, and even re-emphasised, but the problems or challenges encountered during the projects were always ignored in the final presentation. In other words, the final reports or presentation should stress "how good" the projects were rather than reflecting on "how challenging" the projects were. Third, visuals such as photos which showed the differences between the previous status and improved status of the shop floor were used frequently by the consultants to visualise the achievements or improvements. Moreover, for the final reports or presentation, it was common for the consultants to promote other projects (e.g. the project of building performance system) or explain their willingness to continue to provide services to the client organisations.

In addition to assessing "how good" the projects were, the consultants themselves needed to be assessed by the owners. In Autoparts Ltd, Fasteners Ltd, and Nailguns Ltd where the consultants were not required to play a managerial role, the assessment seemed to be more straightforward. As stated in the contracts, the workplace (where the consultants should work - on site or off site) and total working time (how many hours should be spent by the consultants in working on site) were employed as the main criteria to assess the performance of the consultants. Given that the consultants mainly worked on site, it was less likely for the owner or senior managers to question their working time.

The assessment for the consultants-in-residence with Textile Ltd and Glass Ltd was more complex. Since they undertook managerial tasks, they needed to be assessed by the performance indicators set for general managers (e.g. annual output, customer satisfaction rate, quality rate, on-time delivery rate, and safety rate) and deputy general managers (e.g. completion rate of production tasks, quality rate, coverage of the developed procedures and rules, and the number of improvement suggestions), respectively. Interestingly, while the result of performance assessment would affect the salary and bonuses of the other managers or employees, it actually did not directly link to the consultants' salary or bonus in these two cases. The consultants were paid and rewarded by the consulting company. However, the senior consultant in Textile Ltd further argued that, although he would not directly get an extra bonus (as did the other managers) from the performance assessment, this assessment would benefit him in terms of renewing the contract.

The interviews with the owners and senior managers in the client organisations showed that their general feedback on the effectiveness of lean improvement projects were positive because they argued that visible and radical changes on the shop floor could be observed and the operations performance in their organisations were improved (see table 6.16). Table 6.16 provides a summary of the operations performance indicators mentioned by the owners and senior managers.

Table 6.16 A summary of the operations performance indicators mentioned by the owners and senior managers

Key operations performance indicators	Autoparts Ltd	Textile Ltd	Glass Ltd	Fasteners Ltd	Nailguns Ltd
Productivity	---	<i>Improved by 2.4%</i>	---	---	---
Production cost	<i>Reduced by 0.3%</i>	<i>Reduced by 0.5%</i>	<i>Reduced</i>	<i>Reduced by 0.1%</i>	<i>Improved by 0.33%</i>
Cost of raw materials	---	<i>Reduced by 0.9%</i>	<i>Reduced by 0.6%</i>	---	---
On-time delivery	---	<i>Improved</i>	<i>Improved</i>	<i>Improved</i>	---
First pass yield	<i>Improved by 0.1%</i>	<i>Improved by 0.2%</i>	<i>Improved by 0.23%</i>	---	<i>Improved by 0.17%</i>
Completion of production plan	---	<i>Improved by 0.9%</i>	---	---	---
Safety accident	<i>None</i>	<i>None</i>	<i>None</i>	<i>None</i>	<i>None</i>
Inventory turnover rate	---	<i>Improved</i>	---	---	<i>Improved</i>

Note: a specific figure of the operations improvement was provided where possible.

Source: Developed by the researcher based on the interviews with owners and senior managers

Although it was not the intention to evaluate the success of lean implementation in these five client organisations, the results reported in table 6.16 are somewhat surprising and worthy of further comment. If this had been a western-based study, then organisations would have expected to see considerably higher percentage improvements. It was also surprising that the owners and senior managers from the client organisations actually accepted these minimal improvements. Reflecting on these results and what was observed and recorded during the fieldwork, there are three possible reasons that might help to explain the owners and senior managers' acceptance of such minimal improvements. The first one relates to the drivers for these client organisations to adopt lean practices. For Fasteners Ltd and Nailguns Ltd, the adoption of lean practices such as 6S and visual management was required by their main customers. Hence, the owners and senior managers in these two client organisations focused on showing visible evidence of adopting certain lean practices to their customers, for example, they could use the visual boards on the shop floor as the evidence of adopting visual management. In other words, the owners and senior managers in these two client organisations viewed the use of lean practices as a means to enhancing legitimacy and credibility with their customers rather than a means to gaining economic benefits.

For Autoparts Ltd, Textile Ltd and Glass Ltd, the owners and senior managers' ambition to adopt lean practices was to emulate the larger organisations in their field who were already employing lean practices to improve their operations. However, the owners and senior managers in these three client organisations had very limited or even no experience of employing either consultants or lean practices. At the outset they failed to define clear and specific objectives with the consultants and/or Key

Performance Indicators (KPIs) for the lean projects (e.g. cost reduction, improvement in quality). This failure provided more freedom for the consultants to selectively present the results of the projects at the final stage of projects. The examination of PowerPoint slides used in the final presentation and the interviews with the consultants showed that photos taken from the shop floor and lists which showed the tasks completed in the projects were usually used by the consultants as the visible evidence for their achievements. Lean practices which were only partially completed in the projects (e.g. revising the organisation's performance assessment system) or were not included (e.g. mapping and redesigning the production lines) were packaged and promoted as the follow-up projects for the client organisations. Therefore the second reason for accepting minimal improvements may be associated with the limited experience of using consultants and ambiguity of the project objectives which thwarted the owners and senior managers' ability to question the validity of the consultants' presentation.

The final reason links to the duration of these projects. Most of these projects were one-year to one-and-a-half-year projects and therefore focused on the early implementation stage, when a considerable amount of time was spent in discussing, drafting and revising project materials such as operations procedures, training materials and guidelines for lean implementation. Hence, lean practices were not actually applied to the shop floor level until early-to-middle or middle of the implementation stage of the projects. Given the limited duration of lean implementation in these client organisations, it may premature to show significant improvements, particularly in instances where performance data were not readily

available at the outset and reporting mechanisms needed to be established by the consultants.

When asking the owners and senior managers' to provide some advice for other SMEs which would like to employ consultancies to implement lean practices, most of them argued that selecting a consultant who possessed sufficient knowledge of their company's context was very important because it could facilitate them to link lean practices to their company's actual situation. For example, the general manager in Nailguns Ltd, on the one hand, believed that the consultants were professional in terms of using lean practices but on the other hand, argued that the project could be more efficient and effective if a consultant who was familiar with nail gun manufacturing was employed. Another common suggestion related to the sustainability of lean practices. The interviewed owners and senior managers generally believed that there was a need to use rules and procedures to maintain lean practices after the consultants had left. However, in Textile Ltd and Glass Ltd, the owners said they would like to continue to hire the consultants because they were professional and possessed substantial managerial and technical skills. Both the owners and senior managers contended that the consultants' decisions on the managerial tasks and project tasks constituted an important part of their daily management and it was difficult for them to find another manager to replace the consultants' positions within a short period of time and they needed the consultants to continue to work with them. In other words, the consultancy in residence increased the client organisations' reliance on the consultants. Table 6.17 summarises the suggestions given by the owner and senior managers in each client organisation.

Table 6.17 A summary of the suggestions for other SMEs to employ consultancies to implement lean practices

Suggestions	Autoparts Ltd	Textile Ltd	Glass Ltd	Fasteners Ltd	Nailguns Ltd
Choose a consultant who is experienced in both working in similar organisation and in doing lean improvement projects.	√	√	√	√	√
Ensure that the project materials and guidelines are linked to the organisation's context: be practical.	√	√	√	√	√
Build a long-term relationship with a proper consultant.		√	√		
Using rules and procedures to sustain the lean practices.	√	√	√		√
Have a clear plan before starting the project.			√	√	

Source: Developed by the researcher based on the interviews with owners and senior managers

6.2.4.1 Summary of the results assessment stage

Table 6.18 summarises the key themes identified from the implementation stage.

Table 6.18 Key themes identified from the results assessment stage

No.	Key themes
1.	The clients' view: the expert perspective on the role of consultants.
2.	Building a long-term relationship with the client organisation: client organisation's dependence on the consultants in residence.
3.	Evidence-based consulting practice.
4.	Sustaining lean practices.
5.	The impact of organisational size on the consulting practices at the results assessment stage.

Note: No priority is implied by the order in which these themes are presented.

Source: Developed by the researcher

1. The clients' view: the expert perspective on the role of consultants

Compared to the initial contact stage where the consultants were generally positioned as the professional and experienced advisors, the interviews with the owners and senior managers at the results assessment stage reflected on their re-thinking of the consultant's role. They divided the consultants' expertise into two parts: expertise in lean practices and expertise in their company's context. Instead of solely seeking a consultant who was experienced in applying lean practices, the owners and senior managers believed that the 'right' consultant for them was one who possessed both areas of expertise, similar to those demonstrated by the consultants in Textile Ltd and Glass Ltd.

2. Building a long-term relationship with the client organisation: The client organisation's dependence on the consultants in residence

Although all of the consultants presented their willingness to continue to carry out other projects or lean improvement projects with their client organisations, only the owners in Textile Ltd and Glass Ltd agreed to renew the contract with their consultants. The consultants were embedded in the managerial and project tasks in these two client organisations. Since they acted as senior managers, the managers and employees in these two client organisations were more likely to rely on their decisions to carry out their work and it was less likely for the owners or senior managers to quickly terminate their relationship with the consultants.

3. Evidence-based consulting practice

At the results assessment stage, there was no doubt that the consultants needed to show the achievements of the project in their final presentation or project report. In addition to using positive words to highlight what they had done, visible evidence (such as photos taken from the improved shop floor) was also favoured by the consultants. The comments from the owners and senior managers showed that, although there was no specific criterion set at the previous stages to assess “how good” the project was, the owners and senior managers did expect to see the visible changes on their shop floor and in their operations performance.

4. Sustaining the lean practices

When the project moved to the end stage, how to sustain the lean practices after the end of the project became an important issue. The owners and senior managers

commonly believed that establishing rules and procedures was a useful way to sustain the lean practices in their organisations. In addition, building a long-term relationship with the consultants was also viewed as a critical way to maintain lean practices by the owners and senior managers in Textile Ltd and Glass Ltd.

5. The impact of organisational size on the consulting practices at the results assessment stage

At the results assessment stage, the owner was identified as the key client by the consultants because the owner decided whether the consulting fee should be fully paid and whether the contract with the consultants could be renewed. The interviews with senior managers also showed that, although they attended the results assessment meetings, their role was more advisory than decisive. The middle managers and employees who were involved in the implementation stage were usually excluded from this stage.

6.3 Conclusion and relevance to the thesis

The empirical results from the main case studies showed that the consultant-client relationship changed throughout the project stages and it was influenced by the structural characteristics of the client organisations. Given the central role of the owners in the decision-making process in these SMEs, the consultants were required to consistently convince them to approve consulting practices at different project stages. Since the documentation and standardisation of management and operations processes in the client organisations were relatively low, the importance of involving the middle managers (particularly the workshop directors) and supervisors who were not included in the project steering teams should not be underestimated at the preparation and implementation stages.

In addition to the consultant-client relationship, this chapter discussed how learning occurred at different levels (i.e. organisational, group and individual levels) in the client organisations. Challenges and issues associated with learning of lean practices that were encountered by the consultants were also addressed. While learning lean practices constituted an important part of these consultancy projects, some long-existing practices that were inappropriate to lean practices should also have been abandoned. The next chapter will discuss these results in relation to the literature presented in Chapters 2 and 3.

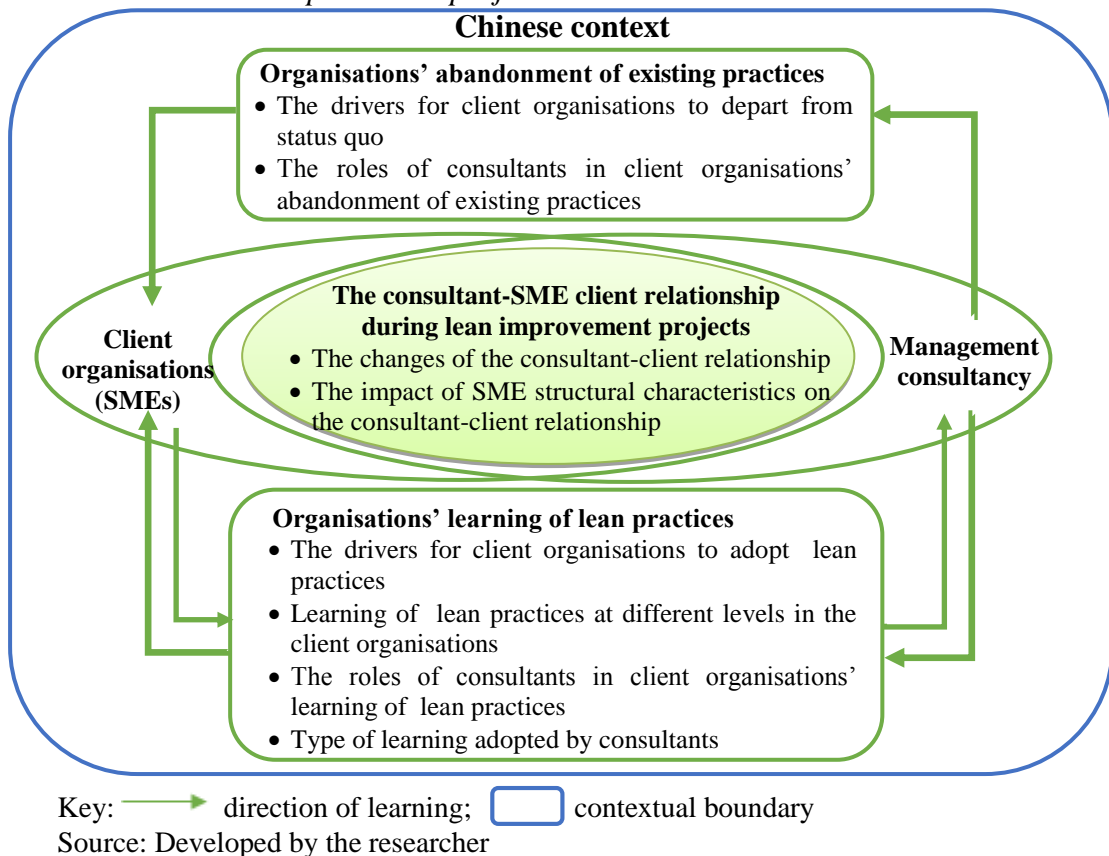
CHAPTER 7 CASE STUDIES ANALYSIS AND DISCUSSION

Chapter 7 Case Studies Analysis and Discussion

7.1 Chapter Introduction

This chapter analyses the results from the case studies in relation to the theories discussed in Chapter 2, including: organisational learning, institutional theory and contingency theory. It also links to the applied and contextual concepts of this research presented in Chapter 3, including management consultancy, Lean Production, and Chinese SMEs literature. Based on the research framework introduced in Chapter 1 (also see figure 7.1), this chapter is divided into three sections. The first section examines the consultant-client relationship in SMEs. The next section discusses organisations' abandonment of their existing practices and the third section focuses on the organisations' learning of lean practices. A summary of this chapter is presented in the conclusion section.

Figure 7.1 The research framework to study the consultant-client relationship in Chinese SMEs' lean improvement projects



7.2 The consultant-client relationship in Chinese SMEs

One important theme in the research framework used in this study (see figure 7.1) is the relationship between the consultants and SME clients. It considers the changes of consultant-client relationship across different project stages and the impact of SME structural characteristics on the consultant-client relationship. The following sections will discuss these two issues in the light of the results presented in Chapters 5 and 6.

7.2.1 The changes of the consultant-client relationship

Debates about the relationship between the consultants and their clients have existed over a long period (Nikolova et al., 2009; O'Mahoney and Markham, 2013). According to Nikolova and Devinney (2012) there are three typical and perhaps "competing" perspectives on the consultant-client relationship including the expert model, critical model, and social learning (process) model (see table 2.3). While the expert model (e.g. Freidson, 2001; Greiner and Metzger, 1983) believes that the consultants are external experts, doctors, or problem solvers who possess superior knowledge or expertise to give solutions to their clients, the critical model (e.g. Clark, 1995; Clark and Salaman, 1998) argues that the consultants are impression managers who are good at using rhetorical skills to convince the clients of their expertise. The social learning model (e.g. Schein, 1990; 1999) provides a more balanced view of the relationship between the consultants and clients. It suggests that both the consultants and clients' knowledge is critical to problem solving. The consultants should act as facilitators and helpers who jointly diagnose and develop solutions with their clients. However, to what extent do these models reflect on the consultant-client relationship in the case studies? Previous research focused solely on the consultant-client

relationship from a single point view - either from the consultant’s view or from the client’s view (see Fincham, 2012; Kakabadse, 2006). This research has provided a more comprehensive understanding of the consultant-client relationship by considering both perspectives.

7.2.1.1 The clients’ view: an expert image of the consultants

The results from the case studies indicate that the owners, managers and employees perceived of the consultants as experts. The consultants were expected to play two types of roles: “*consultants as external advisors*” (in Autoparts Ltd, Fasteners Ltd, and Nailguns Ltd) and “*consultants in residence*” (in Textile Ltd and Glass Ltd). Figure 7.2 presents the main characteristics of the two types of roles that the consultants had in the case studies.

Figure 7.2 The main characteristics of the two types of roles that the consultants had in the case studies

		The consultant’s knowledge base of the client organisation’s context	
		Limited	Extensive
The role of consultants in decision-making	Decisive		Consultants in residence (Textile Ltd, Glass Ltd)
	Advisory	Consultants as external advisors (Autoparts Ltd, Fasteners Ltd, Nailguns Ltd)	

Source: Developed by the researcher

The existing management consultancy literature commonly views a consultancy service as an advisory service (see Clark and Salaman, 1996; Greiner and Metzger, 1983; Kubr, 2002). This research has challenged this existing view of the consultancy service by showing that in practice the clients can expect more than an advisory service from the consultants. Compared to the consultants (referred to “consultants as external advisors”) who only had a rich experience of conducting lean practices, the consultants (referred to “consultants in residence”) who had substantial experience of both working in the same industries to their client organisations and conducting lean improvement projects were more likely to be expected to be involved in the client organisation’s daily operations and make decisions about both the project-related tasks and the managerial tasks. The interviewed managers who worked with the “consultants in residence” actually felt comfortable carrying out the consultants’ instructions. This “comfort” reflected the traditional Chinese culture (i.e. Confucianism). One of the central aspects of Confucianism highlights that juniors should respect and comply with seniors (Whitley, 1992). Managers believed that the consultants’ knowledge of their working context (i.e. the technology and operational processes in their companies and industries) and lean practices were more advanced than their own. Hence, in the Chinese context, it was interesting to find that managers were willing to respect and implement consultants’ decisions.

It may be argued that in the case studies some managers and employees (including workshop directors and experienced supervisors) were involved in the process of developing project materials and training delivery, which reflected on a social learning model (Schein, 1990; 1999). However, it is worth noting the responses of the managers and employees to their involvement. A number felt uncomfortable with being involved

in the development of project materials or the delivery of training because they believed that the consultants were experts who should carry out these tasks. In other words, the expert image of consultants has been firmly placed in their mind-sets. Kipping and Armbrüster's (2002) argue that the public image of management consultants, which has long been constructed by the management consulting industry, positions the consultants as knowledge donors and the clients as passive knowledge receivers. Similarly, Christensen et al. (2013) note that consulting companies often consider their services as sending a group of smart people to their clients and giving them some solutions. However, Kipping and Armbrüster (2002) point out that this expert image may result in the consultants' inaccessibility to the employees in their client organisations; for example, since the consultants were viewed as the experts who should give the solutions, the managers and employees in the client organisations were more likely to view themselves as the passive receivers of the solutions.

Moreover, within this overarching expert image held by the owners, managers and employees, this research shows that there is a link between the contextual knowledge of the client organisation possessed by the consultants and the role of consultants expected by the owners and senior managers. When the consultants possess substantial contextual knowledge of their client organisations, the owners and senior managers were more likely to expect them to play a decisive role during the implementation of the projects.

7.2.1.2 The consultant-client relationship in practice: a dynamic image

While the clients would like to view the consultants as experts, the investigation into the consulting practices undertaken in the five client organisations has shown a more dynamic image of the consultant-client relationship. Two key consulting practices have been identified: impression management and the consultants' involvement of their clients.

The consultant's management of their client's impressions

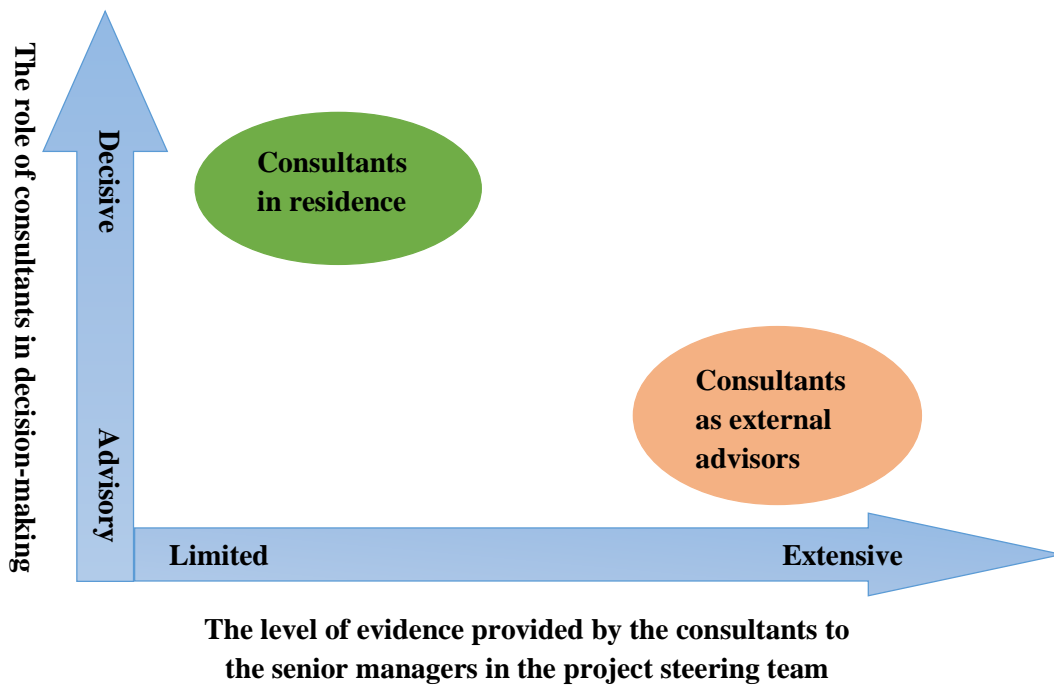
As argued by the Alvesson (1993), the consultants actively shaped their clients' impressions to ensure that their services are perceived as professional and valuable. The results from the case studies showed that managing the clients' impressions constituted a critical part of consulting practices across all of the project stages. At the pre-implementation stage (i.e. the initial contact and preparation stages), in order to secure the contract, the consultants believed that they needed to convince the owners and senior managers of their expertise. During the implementation stage, to ensure the efficiency of the projects, the consultants made great effort to persuade the owners or senior managers to approve their advice and proposals as quickly as possible. At the post-implementation stage (i.e. the results assessment stage), the consultants attempted to convince the owners of the quality of their services in order to ensure that they can secure all of the consulting fees and develop further business opportunities with their clients.

Clark (1995), and Clark and Salaman (1998) claim that consultants frequently use their rhetorical skills to construct a positive image of their services. For example, the

consultants described their previous lean improvement projects as a success at the initial contact stage. Similarly, Nikolova et al. (2009) point out that, in addition to using rhetoric as the impression management strategy, the consultants also actively visualise their problem solutions to convince their clients. The analysis of the evidence used by the consultants when convincing their clients supports Nikolova et al.'s (2009) perspective. In the case studies, consultants were considered as the experts (i.e. seniors). To keep *mianzi* (i.e. face) (Zhao, 1994) in front of juniors (i.e. managers who were less experienced about using lean practices), the consultants were keen to minimise the risk of being questioned by their clients and to increase the legitimacy of their advice, plans, or solutions by visualising and externalising the evidence. For example, photos taken from the improved shop floor were often used by the consultants to show their achievements. In addition, figures related to the client organisations' operations performance were adopted by the consultants to convince their clients of the effectiveness of the projects.

Interestingly, while managing the owners' and senior managers' impressions was viewed as an important practice by the consultants, the results from the case studies also showed that there was a link between the role of the consultants and the level of the evidence that they provided to the senior managers (see figure 7.3).

Figure 7.3 The consultant's role in the decision-making and the level of evidence that they provided



Source: Developed by the researcher

For the “consultants in residence” (i.e. Textile Ltd and Glass Ltd), the consultants were employed by the owners as senior managers and decision makers, and therefore the consultants had the authority to decide most of the project tasks and even managerial tasks during the implementation stage. The traditional Chinese culture possesses a “command and control” characteristic and requires juniors to respect seniors (Whitley, 1992). Hence, in the Chinese context, managers were more likely to position themselves as the followers of the owners and consultants. They felt that they needed to respect the owners’ decisions of employing consultants as senior managers and decision makers in the projects. They also felt that they should respect consultants who were more knowledgeable and experienced. In this sense, although the consultants still

needed to provide some evidence to justify their decisions and ensure some agreements were reached between the project steering team members during the decision making processes, the evidence they provided was normally brief and general. However, for the “consultants as external advisors” (i.e. Autoparts Ltd, Fasteners Ltd and Nailguns Ltd), where the consultants played an advisory role and did not have enough authority to decide project tasks, they needed to make the evidence underpinning their suggested solutions look more extensive and robust in order to ensure that the senior managers could be convinced.

Hence, in line with the studies by Alvesson (1993), Clark (1995), Clark and Salaman (1998) and Nikolova et al. (2009), this research suggests that impression management is a key practice performed by the consultants throughout the projects. Moreover, this research extends the above studies by showing that the impression management in the consultancy project was not “all or nothing”. The degree of the impression management undertaken by the consultants can vary in relation to their roles in the projects.

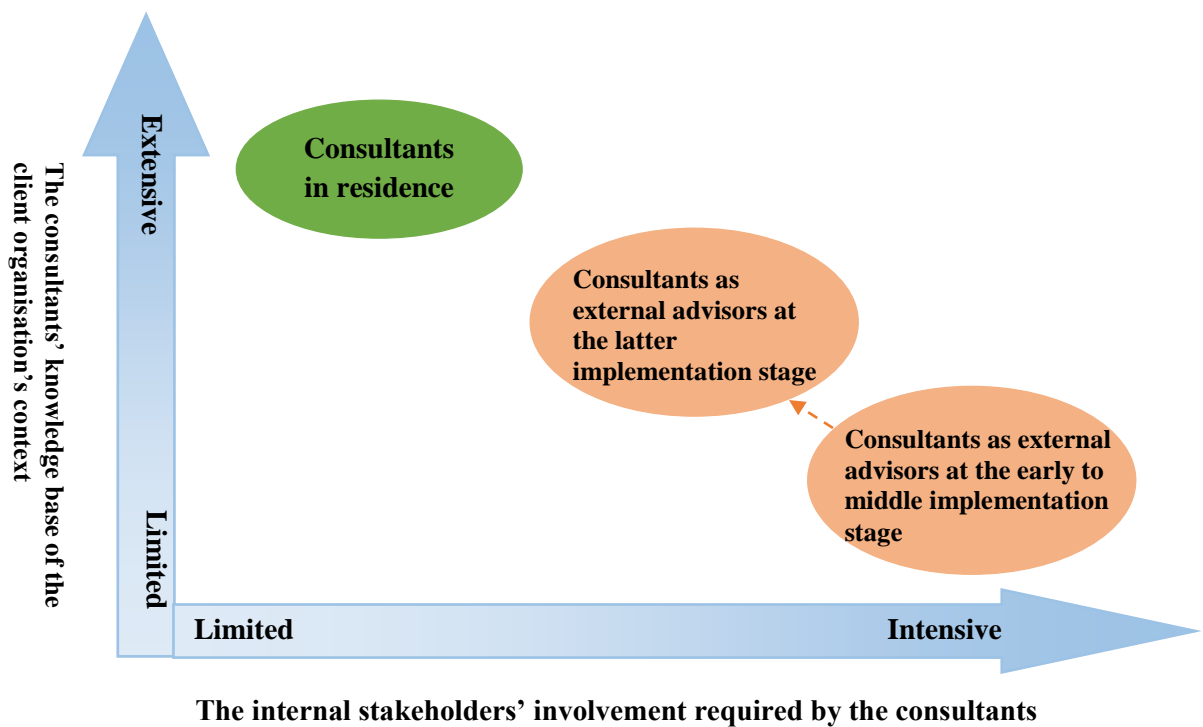
The consultants' involvement of their clients in problem diagnosis and solving

Being employed as experts, it was unsurprising that the consultants were carrying out the professional tasks that were commonly suggested by the expert model (e.g. Freidson, 2001, Kubr, 2002). For example, in the case studies, the consultants submitted the project plans to the owners at the pre-implementation stage, which included the problems identified from their on-site investigation and solutions or tasks linked to lean practices. At the implementation stage, the consultants drafted and

presented, or even decided on, the project materials (such as the rules and procedures of operations and shop floor management) and provided training to their client organisations.

However, as argued by Kipping and Clark (2012), the services provided by the management consultants are not context-free. It is difficult for the consultants themselves to identify the solutions without having a good understanding of their client organisations' context. Hence, it can be problematic to solely view the consultants as an expert (Nikolova et al., 2009). The social learning model suggests that instead of attempting to solely give the solutions to their clients, the consultants should actively encourage their clients, who actually own the problems, to participate in the problem diagnosis and solving processes (Schein, 1990; 1999). For example, in the case studies, the consultants acknowledged the importance of involving the managers and experienced employees in developing the project plans and project materials or solutions. It was crucial for them to work jointly with the senior managers, middle managers, and sometimes experienced supervisors who were more familiar with their current operations and management processes. Moreover, the results also showed the link between the consultant's knowledge base of the client organisation's context and the internal stakeholders' involvement required by the consultants (see figure 7.4).

Figure 7.4 The consultant's knowledge base of the client organisation's context and the internal stakeholders' involvement



Source: Developed by the researcher

For the “consultants in residence” (Textile Ltd and Glass Ltd), the consultants already had an extensive knowledge base of the client organisations’ context because they had both worked in the clients’ industries for more than twenty years. In this case, the consultants often found themselves capable of developing training materials or rules and procedures to fit into the clients’ context. The managers and employees’ involvement in the project implementation stage was thereby limited to spotting mistakes or adjusting some information based on the materials that were developed by the consultants. Conversely, for the consultants occupying the role as external advisors (Autoparts Ltd, Fasteners Ltd and Nailguns Ltd), as argued by Gammelsaeter (2002), the consultants’ knowledge base is more likely to be embedded in the external context while the managers’ knowledge base is more likely to be specific and organisational.

The unfamiliarity with the clients' context drove the consultants to spend more time working closely with lower management layers who possessed such knowledge to ensure that the solutions and project materials were suitable for their client organisations. It was argued that the consultants' knowledge base of the clients' context could be improved gradually during the implementation of the project (Sturdy et al., 2009b). In this case, the level of the internal stakeholders' involvement (e.g. workshop directors) that they required could be reduced as the project went on. However, this was a time-consuming process and it could be difficult for the consultants to reduce their requirement for the internal stakeholders' involvement during the early to middle implementation stage.

Hence, in line with Nikolova et al. (2009), the case studies confirmed that solely viewing the consultant-client relationship from the expert perspective can be problematic. The consultants needed to involve their clients in the problem solving process (Schein, 1990; 1999) to ensure that the solutions and project materials fitted their client organisations' context. However, in contrast to Schein's (1990; 1999) studies, which asserted that the consultants should involve their clients in the project, the case studies further suggested that the involvement of the internal stakeholders in the problem solving was not "all or nothing". Building on Sturdy et al.'s (2009b) study of the dynamic of the consultant-client relationship, this research suggests that the degree of consultants' involvement of their clients in problem solving can vary in relation to the consultants' knowledge base of their client organisations' context.

7.2.2 The impact of SME structural characteristics on the consultant-client relationship

Radnor and O'Mahoney (2013) highlight that the relationship between the consultants and clients may also be affected by the specific context of the consultancy projects. In this research, all of the consultancy projects were undertaken in Chinese SMEs. Contingency theory suggests that the structural characteristics of smaller organisations differ from larger organisations. Table 7.1 compares the structural characteristics of SMEs suggested by contingency literature (Blau et al., 1976; Miller and Dröge, 1986; Pugh et al., 1969), the literature of Chinese SMEs (e.g. Cunningham and Rowley, 2007; Redding, 1993) and as found in the five client organisations.

According to table 7.1, the five Chinese SME client organisations share many structural characteristics that are generally suggested by the contingency literature, including the high level of centralisation and low level of standardisation, formalisation and specialisation (e.g. Blau et al., 1976; Miller and Dröge, 1986; Pugh et al., 1969). However, in line with the Chinese SME literature (e.g. Cunningham and Rowley, 2007; Redding, 1993), the case findings also show that these five Chinese SMEs possess a “command and control” characteristic which has its root in traditional Chinese culture (i.e. Confucianism). According to Confucianism, juniors should respect and follow seniors (Whitley, 1992). Hence, the lower management layers in these five client organisations were more likely to respect and adhere to the senior management's decisions. In addition, given the limited education and training received by the managers and employees in these five client organisations, they had little or even no knowledge of using advanced management practices such as lean practices.

These two defining characteristics may not be so prominent in western-based SMEs, for example, Laaksonen's (1988) research suggests that both senior and middle managers in European enterprises have high influence over decisions, while middle managers in Chinese enterprises have little impact on the overall decision-making process. The recent survey from the UK government (Department for Business, Innovation and Skills, 2013) shows that sixty per cent of UK SME owners have arranged training for their employees. Thereby, more comparative studies are needed to compare and contrast the structural characteristics of eastern and western SMEs in the future.

Table 7.1 The structural characteristics of SMEs in contingency literature, Chinese SMEs literature and case studies

Structural characteristics	Contingency literature (e.g. Blau et al. 1976; Miller and Dröge, 1986; Pugh et al. 1969)	Chinese SMEs literature (e.g. Cunningham and Rowley, 2007; Redding, 1993)	Case studies (Autoparts Ltd, Textile Ltd, Glass Ltd, Fasteners Ltd and Nailguns Ltd)
The centralisation of decision making process	A high level of top managers control in the decision-making process	The owners or senior managers usually keep tight control over their business, middle managers have low influence on the decision-making process; middle managers and employees are more likely to just follow the owner or senior manager's decisions	The owners kept tight control over financial management, sales and human resources management; middle managers and front-line employees respect and followed the owners' decisions
The number of hierarchical levels	A small number of management layers	A small number of management layers	The structure included four management layers: the owner, the senior managers (i.e. general manager and deputy general managers), middle managers (e.g. operations managers, workshop directors, warehouse managers) and employees (e.g. supervisors and operators)
The standardisation of management procedures	Informal and flexible management and operations processes	Informal and simple management and operations systems	Informal management and operations processes; experience based operations
The formalisation of management procedures	A low level of paper work	Low level of paper work; many operations instructions are given orally	Many management and operations procedures were not documented or updated
The overall specialisation of jobs and functions	A few functional departments, a few job titles	Employees are generalists rather than specialists and their skill level is relatively low	Middle managers and employees were required to carry out more than one task and most of them were not well trained

Source: Developed by the researcher

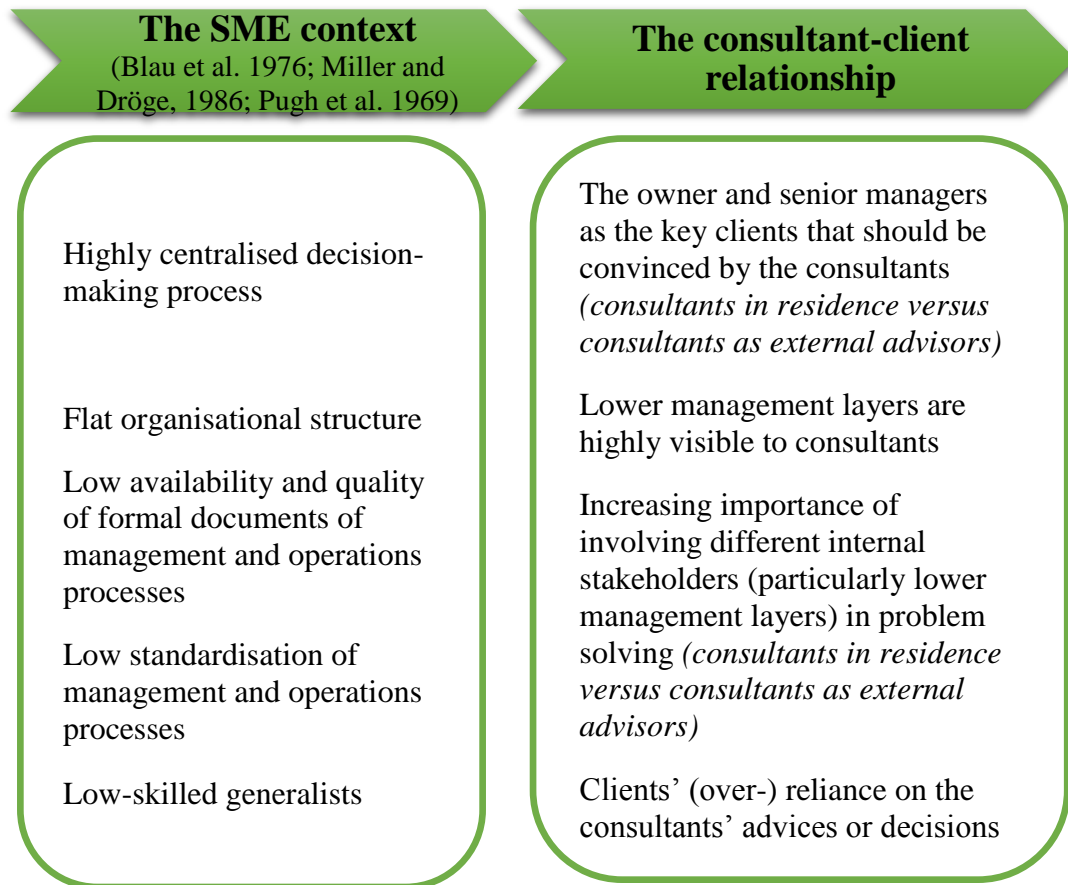
Since the owners of these five client organisations (Chinese SMEs) played a central role in the decision making processes (Redding, 1993), the consultants consistently viewed the owners as their key clients across different project stages. For example, at the pre-implementation stage, the owner in the client organisation decided whether the consultants should be employed and if the project plan could be approved. At the implementation stage, the owner controlled the expenditure and the overall progress of the consultancy project. When the project moved to the post-implementation stage, the owner decided if the rest of the consulting fee should be fully paid. In this case, the consultants made many effort to convince the owner of the quality of their services throughout the project (Chen et al., 2008). However, as discussed in section 7.2.1.2, the degree of impression management performed by the consultants can vary in relation to their roles in the projects.

The management and operations processes in these client organisations were informal and not well documented. For example, during the initial contact meetings, only two client organisations were able to provide several introductory documents. The owners and senior managers in these five client organisations commonly acknowledged that well-sorted introductory documents were not available in their organisations. Hence, the consultants often contended that the contextual information they gained from their client organisations at the pre-implementation stage was limited. During the on-site investigation and implementation stage of the project, the consultants felt that it was challenging for them to gain an in-depth and quick understanding of the production and operations processes on the shop floor in their client organisations since the work instructions were normally orally given by the workshop directors or supervisors without appropriate documentation. In this sense, in addition to the owners and senior

managers who could play a dominant role in the decision making, the lower management layers (such as operations managers, warehouse managers, workshop directors and experienced supervisors) who worked on the shop floor and were highly visible to the consultants (due to a small number of management layers possessed by these client organisation) became more important during the problem solving process. The consultants agreed that the involvement of middle managers and experienced employees in the problem solving process (Schein, 1990; 1999) was necessary in terms of ensuring that the solutions and project materials were appropriate to the client organisations. However, it is worth noting that, as discussed in section 7.2.1.2, the degree of the internal stakeholders' involvement can vary in relation to the consultants' knowledge base of their client organisations' context.

Although many middle managers and employees were required to do more than one task in the client organisations, it was found that most of them were not well trained (Cunningham and Rowley, 2007). The senior managers argued that the training opportunities in these five client organisations were limited. Even the senior managers themselves did not have much experience of attending other formal training courses (Tang et al., 2009) and their knowledge base of the management methods and tools was not substantial (Singh et al., 2010). The interviews with managers and employees in these five client organisations also showed that their knowledge base of lean practices was low. In this sense, they were more likely to rely on or sometimes, as argued by the consultants, over-rely on the consultants' advice or decisions to implement lean practices. Figure 7.5 illustrates the impact of SME structural characteristics on the consultant-client relationship.

Figure 7.5 A framework of the impact of SME structure characteristics on the consultant-client relationship



Source: Developed by the researcher

The results from the case studies highlighted that, in the SME context, the relationship between the consultants and clients was more than the relationship between the consultants and owners or senior managers. Given the structural characteristics possessed by SMEs, it was challenging for the consultants (particularly those without substantial experience of working in the client organisations' industry) to gain an insight into their client organisations' context quickly and to figure out the solutions by themselves. In this sense, the consultants' over-emphasis on their expert image (which was already present in their clients' mind-sets) would increase the difficulty

for the consultants to get access to the managers and employees. It would also increase the risk of distancing the managers and employees from the problem solving. The solutions and project materials that were developed solely by the consultants could be inappropriate to the client organisations' context. To ensure that the solutions and project materials were appropriate to the client organisations, it was necessary for the consultants to actively involve the internal stakeholders (particularly lower management layers) in the problem solving and to change their strategies of impression management from solely stressing how professional they were to making more effort to explain how valuable the involvement of internal stakeholders was. Moreover, it was necessary for the owners and senior managers to re-think their selection criteria for the consultants; for example, choosing those consultants who had experience in both working in their industry and conducting lean improvement projects.

7.3 Organisations' abandonment of their existing practices

According to Greenwood et al. (2002), and Seo and Creed (2002), in addition to adopting new practices, sometimes certain existing practices in the organisation need to be abandoned and deinstitutionalised.

7.3.1 The drivers for client organisations to depart from status quo

Oliver (1992) asserts that there are three types of pressure leading the organisation to deinstitutionalise and abandon its long-existing practices: political pressures, functional pressures, and social pressures (see table 3.4). Similarly, Scott (2008) points

out that both external (i.e. political, social, economic) and internal (i.e. performance crisis) reasons can lead the organisation to depart from its status quo. The results from the case studies showed that political and functional pressures mainly drove the organisation to depart from their status quo. The interviews with the owners and senior managers in Autoparts Ltd, Textile Ltd, and Glass Ltd indicated that market competition in the field that these organisations were operating in was increasing due to functional pressure, such as that caused by the most recent financial crisis. The increased market competition negatively impacted on these organisations' internal performance by decreasing their sales. The internal performance crisis (i.e. political pressure) triggered the owners and senior managers to re-evaluate and change their old way of managing operations and production. In Fasteners Ltd and Nailguns Ltd, the main customers' dissatisfaction about their current way of managing shop floor was viewed as the imminent threat of failure (i.e. political pressure) by the owners and senior managers. Therefore, to prevent the organisation from being disadvantaged in terms of getting orders from their customers, the owners and senior managers decided to change their status quo and adopted the new practices, such as lean practices, that were suggested by their customers.

7.3.2 The roles of consultants in organisations' abandonment of their existing practices

It is not easy for the organisation to discard its existing practices, even though the managers have recognised the need to depart from the status quo (Dacin and Dacin, 2008). The term inertia is used by Oliver (1992) to show the organisation's maintenance of its status quo. For example, some organisations may not have

sufficient internal expertise to change their existing practices and adopt the new ways of working, and organisation members may prefer to continue with existing practices to minimise the uncertainty in their work (Oliver, 1992). In this sense, the organisation's disruption of its existing practices may need support from outsiders, such as management consultants (Nicholson and Sahay, 2009). In the case studies, it was found that, although the owners and senior managers believed that there was a need to change their status quo and adopt lean practices, they lacked internal expertise of implementing lean practices. The consultants, who were viewed as the experts of using lean practices, were then employed by these client organisations.

The results from case studies showed that some old and long-existing practices that caused quality, safety and delivery issues (such as quantity-pursing practice, experience based working practice and poor working habits) were commonly viewed as inappropriate to lean practices by the consultants. As discussed in Chapter 3 (section 3.3.2), although a number of studies consider organisations' deinstitutionalisation of the existing practices, there is a dearth of research in the area of outsider-driven deinstitutionalisation (Maguire and Hardy, 2009). This research has provided an insight into the roles of consultants in deinstitutionalising the existing practices in their client organisations.

As argued by Maguire and Hardy (2009), in the context of outsider-driven deinstitutionalisation, outsiders often produce and diffuse texts to problematize and illustrate the negative impact of the existing practices. In the case studies, the consultants' "problematization" of the existing practices could be found at both pre-

implementation and implementation project stages. For example, the consultants were expected to make a project plan for the client organisation at the pre-implementation stage. In the project plan, the existing practices of measuring performance and managing the shop floor in the client organisation were categorised as problems that should be solved (see table 6.8). At the implementation stage the negative impacts of these problematic practices (such as quality and safety issues) were diffused to managers and employees through training, posters, and bulletins, which were actively organised by the consultants. In other words, the existing practices were positioned as inefficient to the client organisation's operations performance and as unethical or unsafe for the employees who worked on the shop floor. In this sense, the consultants' problematisation challenged the managers and employees' previous understanding of the existing practices by emphasising the negative impact of adopting these old practices and, thereby, distanced the adoption of these existing practices from their cultural-cognitive foundation (Scott, 2014).

To ensure that their problematisation of the old practices was convincing, the consultants in the case studies also actively managed the managers and employees impressions through the use of rhetorical skills and objective evidence (Clark and Salaman, 1998; Nikolova et al., 2009). For example, figures of the operation's performance and photos of the shop floor were used in the training materials to visualise the negative impact of adopting these old practices.

However, the consultants' knowledge base may differ from that of the client organisation members' and the consultants' language may not always be accessible

and understandable by the client organisation's members (Gammelsaeter, 2002). This implied that the efficiency and effectiveness of the consultants' problematisation of the old practices can be affected by their knowledge base of the client organisations' context. The more contextual knowledge possessed by the consultants (e.g. extensive sector knowledge), the more likely it was that the consultants could problematise the existing practices efficiently. For example, for the "consultants in residence" (Textile Ltd and Glass Ltd), the consultants who had extensive sector knowledge were able to directly interpret the negative impact of the existing practices through the use of language and examples that could be easily understood by the managers and employees. For the "consultants as external advisors" (Autoparts Ltd, Fasteners Ltd and Nailguns Ltd), the managers and employees found that the consultants' language was difficult for them to understand. In this case, the consultants should spend more time understanding their client organisation's context by involving the managers and employees in the process of developing solutions and project materials.

In contrast to Maguire and Hardy's (2009) study, which points out that outsiders can problematise the existing practices by calling for regulatory change to reducing their negative impact, the results from the case studies suggested that the consultants could directly propose and even enact new rules and policies to change their client organisation members' behaviour. As noted by Lawrence and Suddaby (2006), many disruptive institutional works have focused on disconnecting the rewards and sanctions from the adoption of existing practices. In the case studies, it was found that, instead of solely calling the managers for regulatory change, the consultants were actually involved in the process of changing the current policies and rules. For example, rules and policies about performance assessment methods were drafted by

the consultants. The interviews with the consultants and managers showed that some of the organisation's members still preferred to adopt old practices, even though the negative impact of the use of old practices was emphasised frequently in the training courses or posters. The change of performance assessment from previously quantity driven to quality focused forced the employees to change their behaviour from making more components to making good components. If the employees still kept on adopting existing practices (such as quantity-pursing practice), they would no longer be rewarded. In other words, the changes of rules and policies distanced the adoption of existing practices from their regulative foundation and the abandonment of the old practices became coercive to the organisation members (Scott, 2014).

Moreover, the role of consultants in the projects could also influence the efficiency of challenging the regulative foundation of the existing practices. The more decisive the consultant's role in the project, the more likely it was for the current rules and policies in the client organisations to be changed efficiently. For the "consultants in residence" (Textile Ltd and Glass Ltd), the consultants played a decisive role and, thereby, instead of waiting for the senior managers' decisions or spending much time in convincing the senior managers in the project steering team, they were able to make decisions about the issuing new rules and policies. Conversely, for the "consultants as external advisors" (Autoparts Ltd, Fasteners Ltd and Nailguns Ltd), the consultants only played an advisory role. The consultants were forced to spend more time waiting for the senior managers' decisions or convincing them of the quality of the proposed new rules and policies through the use of extensive evidence.

7.4 Organisations' learning of lean practices

As discussed in sections 3.2, the organisation's learning of new practices, such as lean practices, is not a simple process. The following sections will discuss the drivers for organisations to adopt lean practices and how learning occurs in the client organisations.

7.4.1 The drivers for organisations to adopt lean practices

It has been mentioned by many previous studies (e.g. Bicheno and Holweg, 2009; Krafcik, 1988b; Womack and Jones, 2003) that lean practices can enable organisations to improve their operation's efficiency and effectiveness. However, the reasons for the client organisations to adopt lean practices were more than simply pursuing internal operations efficiency. As argued by institutional theorists (e.g. DiMaggio and Powell, 1983), organisations can be driven to adopt some prevailing practices to secure and enhance their legitimacy in the field. They point out that the organisations can become more isomorphic with other organisations operating in the same fields through the adoption of the prevailing practices, even though these practices may not guarantee immediate economic benefits (Tolbot and Zucker, 1999).

In Fasteners Ltd and Nailguns Ltd, pressure exerted by their main customers was the main reason for them to adopt lean practices. Although it seemed that their customers did not explicitly guarantee the economic benefits (e.g. giving them more orders in the future) from adopting lean practices, the owners and senior managers in these two organisations were concerned that failing to show the adoption of lean practices may

lead to customers' dissatisfaction and could negatively impact on their future business. According to DiMaggio and Powell (1983), institutional isomorphism could be coercive. Some organisations (e.g. customers) may require other organisations (e.g. suppliers) to adopt certain management practices and if the latter (e.g. suppliers) did not comply with the former organisations (e.g. customers), then they may lose their legitimacy in the fields that they are currently operating in.

In Autoparts Ltd, Textile Ltd and Glass Ltd, pressure from the marketplace was given as the main reason for their adoption of lean practices. They also noticed that there were other organisations in similar industries whose performance was more successful. Hence, the owners and senior managers in these client organisations attempted to model the good practices that were adopted by these seemingly successful organisations. DiMaggio and Powell (1983), and Oliver (1991) argue that, in addition to coercive isomorphism, institutional isomorphism could be mimetic since organisations are more likely to model other perceived successful organisations if they are operating in an uncertain environment. Therefore, organisations operating in the same field may become more similar to each other.

7.4.2 Learning of lean practices in client organisations

While the frameworks proposed by the extant organisational learning literature, such as Crossan et al.'s (1999) framework, provide a useful insight into how learning occurs at different levels of the organisation in general (i.e. individual level, group level and organisational level), few of them link organisational learning with management consultancy. Building on Crossan et al.'s (1999) framework, this research extends the

current understanding of organisational learning by showing how the learning of lean practices occurs at different levels in the client organisations during the consultancy intervention.

Institutionalising lean practices

There is a consensus in the organisational learning literature that learning at the organisational level cannot be simply understood as a sum of individual learning (e.g. Antonacopoulou, 2006; Argyris and Schon, 1996; Crossan, et al., 1999; Kim, 1993; Vera et al., 2011). The organisational level of learning means that the learning results should be documented and embedded (i.e. institutionalised) into organisational structure, systems, or procedures (Crossan et al., 1999; Dyck et al., 2005; Vera et al., 2011). The results from the case studies showed that both the senior managers and consultants made considerable effort to ensure that lean practices were integrated into the client organisation's rules, procedures, and policies. As illustrated in table 6.14, a number of rules and procedures (such as standard operations procedures, rules for work safety, and performance assessment) were issued by the project steering teams in these five client organisations. Both the managers and the consultants agreed that the rules and procedures could legitimate and regulate the use of lean practices.

In addition, these rules and policies can be viewed as the institutional mechanism (Stata, 1989) to sustain the use of lean practices. As argued by lean thinkers, lean implementation is more than solely the use of one or several lean practices (such as 6S and TPM) on the shop floor (Emiliani, 2007; Found et al., 2007; Hines et al., 2004).

Womack and Jones (2003) point out that organisational level changes (such as the changes of organisational structure and policy or rules) should be included in the company's lean journey. Once the rules and procedures of the lean practices are developed, they can be possessed by the organisation and integrated into organisational memory and program (also known as "epistemological artefacts") (Argyris and Schön, 1996). They are more likely to be stored and maintained by the organisation over a long period of time and organisational members can retrieve them routinely (Huber, 1991). In other words, they are less likely to be influenced by the personnel turnover (Argote, 2011) and client organisations could continue to use lean practices, even after the consultants have left the lean improvement projects.

Developing a shared understanding and common language of lean practices

It is suggested that some shared understanding and agreement between the influential members in an organisation should be developed before rules and procedures are issued (e.g. Crossan et al., 1999; Ellis et al., 2003; López et al. 2005; Stata, 1989). The results from the case studies echo this view. As shown in figure 6.3, the rules and procedures of the use of lean practices proposed by the consultants were discussed by the members and then approved by the decision maker in the project steering team. When a certain degree of shared understanding about the use of lean practices was reached between the team members and consultants, the rules and procedures could be enacted.

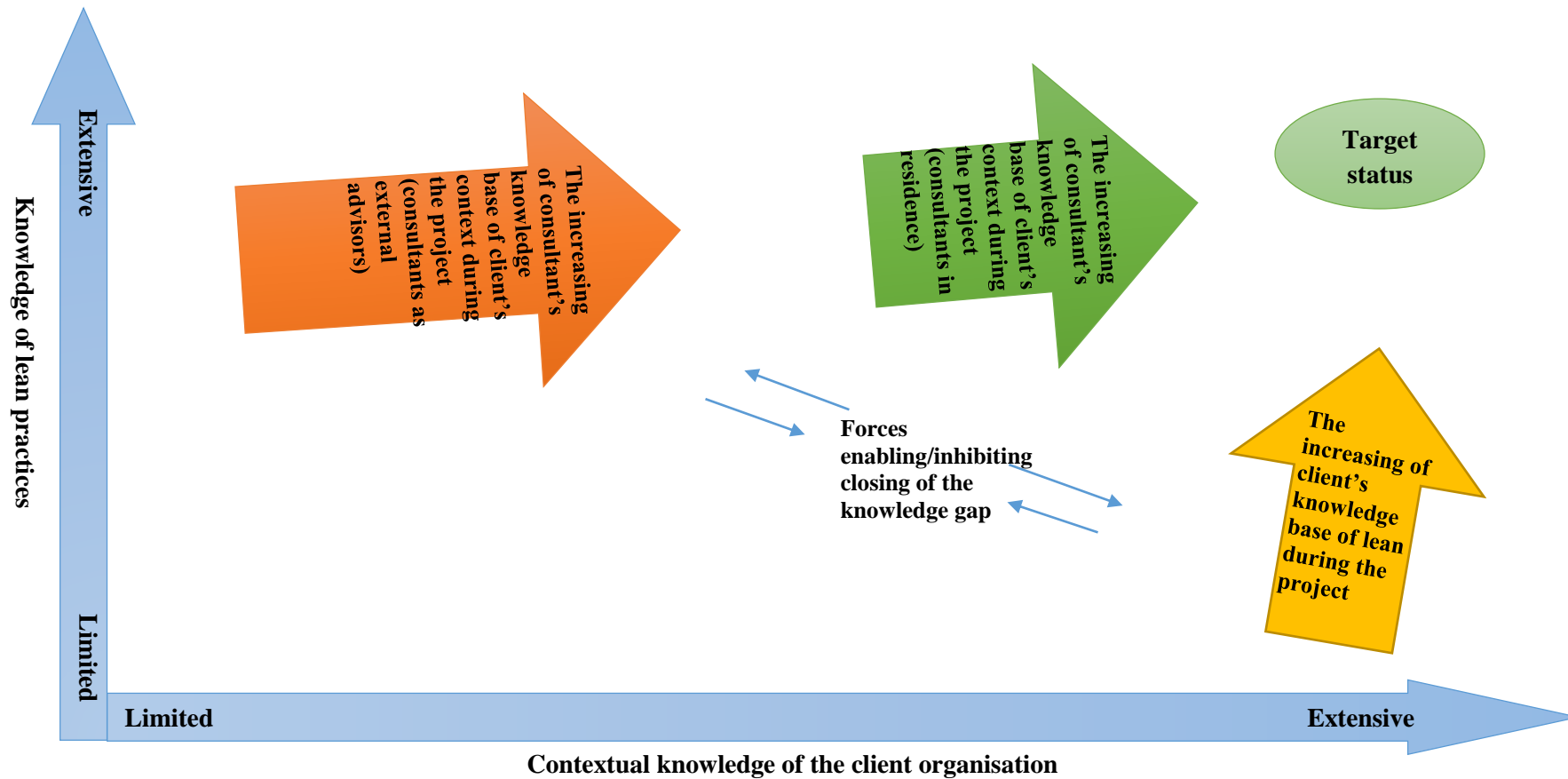
The case studies showed that developing a shared understanding about lean practices between the consultants and project steering team members was a challenging process. Although some of senior managers had attended several training courses of lean practices, most of the managers and employees were unfamiliar with the terms and practices. In this sense, fundamental to building a shared understanding of lean practices with managers was a need for the consultants to interpret lean practices in a way that could be understood by the managers. As noted by Crossan et al. (1999), common language is crucial to the development of shared understanding between group members. They further point out that the language used by people relates to their previously developed cognitive maps and experience (e.g. tacit knowledge) (Crossan et al., 1999; Dyck et al., 2005). People can interpret the same stimulus through the use of different languages, which may not easily be understood by others (Crossan et al., 1999). Hence, in organisational learning, an important process is to transform the tacit knowledge to explicit knowledge (i.e. externalisation) through dialogue (Dyck et al., 2005).

In the context of consultancy projects, many researchers label the consultants as trainers or educators (e.g. Champion et al. 1990; Kubr, 2002; Lashkarbolouki et al. 2011). Kipping and Armbrüster (2002) concern that the consultants' lack of sufficient knowledge of their client organisation's operations inhibits their advice from being implemented by their clients. Sturdy (2011) challenges the above view by showing the moving boundaries between the consultants and managers. It is possible for the consultants and managers to share some knowledge of their sectors or industries because many consultants have possessed the experience of being managers in other organisations (Sturdy, 2011). The consultants' knowledge of a specific sector or

industry (e.g. sector knowledge) can facilitate them to acquire language that is common to their clients (Sturdy et al., 2009b). Moreover, the consultants' knowledge of their client organisations can increase through the implementation of the projects (Sturdy et al., 2009b).

Although there was a gap between the consultants' and the clients' knowledge bases in general, the results from the case studies showed the diversity of the consultants' knowledge base of their client organisations (see figure 7.6). For the "consultants in residence", the consultants employed by Textile Ltd and Glass Ltd already had extensive work experience in their client organisations' industries and this enabled them to understand the language and jargon that were commonly used in these organisations. Meanwhile, the managers and employees also found that the consultants' language was highly accessible. In this case, the consultants could directly exploit their past experience and language to interpret lean practices. Holmqvist (2004:71) refers exploitation to the creation of "reliability in experience through refinement, routinization, production and implementation of knowledge". The consultants in Textile Ltd and Glass Ltd required less involvement of internal stakeholders during problem solving. In other words, the extensive sector knowledge held by the consultants in the "consultants in residence" mode could reduce the difference between their knowledge base and language, and that of their clients (Sturdy et al., 2009b). The consultants' sector knowledge also accelerated the development of a shared understanding of lean practices. For example, the consultants and managers spent less time in clarifying technical terms or explaining jargon, and the drafted rules and procedures were issued efficiently in these two client organisations.

Figure 7.6 Building a shared understanding of lean practices between the consultants and clients – the analysis of main case studies



Source: Developed by the researcher

In contrast, for the “consultants as external advisors” (i.e. Autoparts Ltd, Fasteners Ltd and Nailguns Ltd), the consultants did not possess sufficient knowledge of their client organisations’ context, and both the consultants and the managers struggled to understand each other’s language. In this situation, the case studies showed that the consultants needed to involve managers and employees intensively in the process of developing solutions or project materials, and to explore a new language to interpret lean practices. As Holmqvist (2004:71) argues “exploration creates variety in experience through search, discovery, novelty, innovation and experimentation.” For example, in Fasteners Ltd, the new term “big tag” was co-developed by the consultants and employees to describe visual management. In Autoparts Ltd and Nailguns Ltd, many discussion meetings were held between the consultants and managers during the process of formulating the solutions and project materials. This facilitated the development of a new common language of lean practices, which could be understood mutually by both the consultants and managers.

When positive feedback about the use of the new language related to lean practices was received, the new language could again be exploited by the consultants and managers. For example, the term “big tag” was used widely in Fasteners Ltd in the later implementation stage. When the consultants gained more knowledge of their client organisations’ context or industries/sectors, it was possible for them to understand the existing language in their client organisations and exploit it to interpret lean practices, in addition to exploring this new language. However, as discussed in section 7.2.1, the clients would like to view consultants as experts. They expected to gain solutions directly from consultants rather than co-developing solutions with consultants. Particularly, in the Chinese context, the traditional Chinese culture

highlights that the juniors (such as less experienced and younger people) should respect and follow seniors (more experienced and older people) (e.g. Whitley, 1992). In this sense, middle managers and employees could feel uncomfortable when being asked to participate in the development of solutions or project materials. In summary, while the consultants' contextual knowledge of their client organisations and their involvement of client organisational members could enable them to build a shared understanding about using lean practices with managers, clients' use of organisational-specific or industrial-specific language, their attitude towards consultants (i.e. expert view) and traditional Chinese culture could become inhibitors.

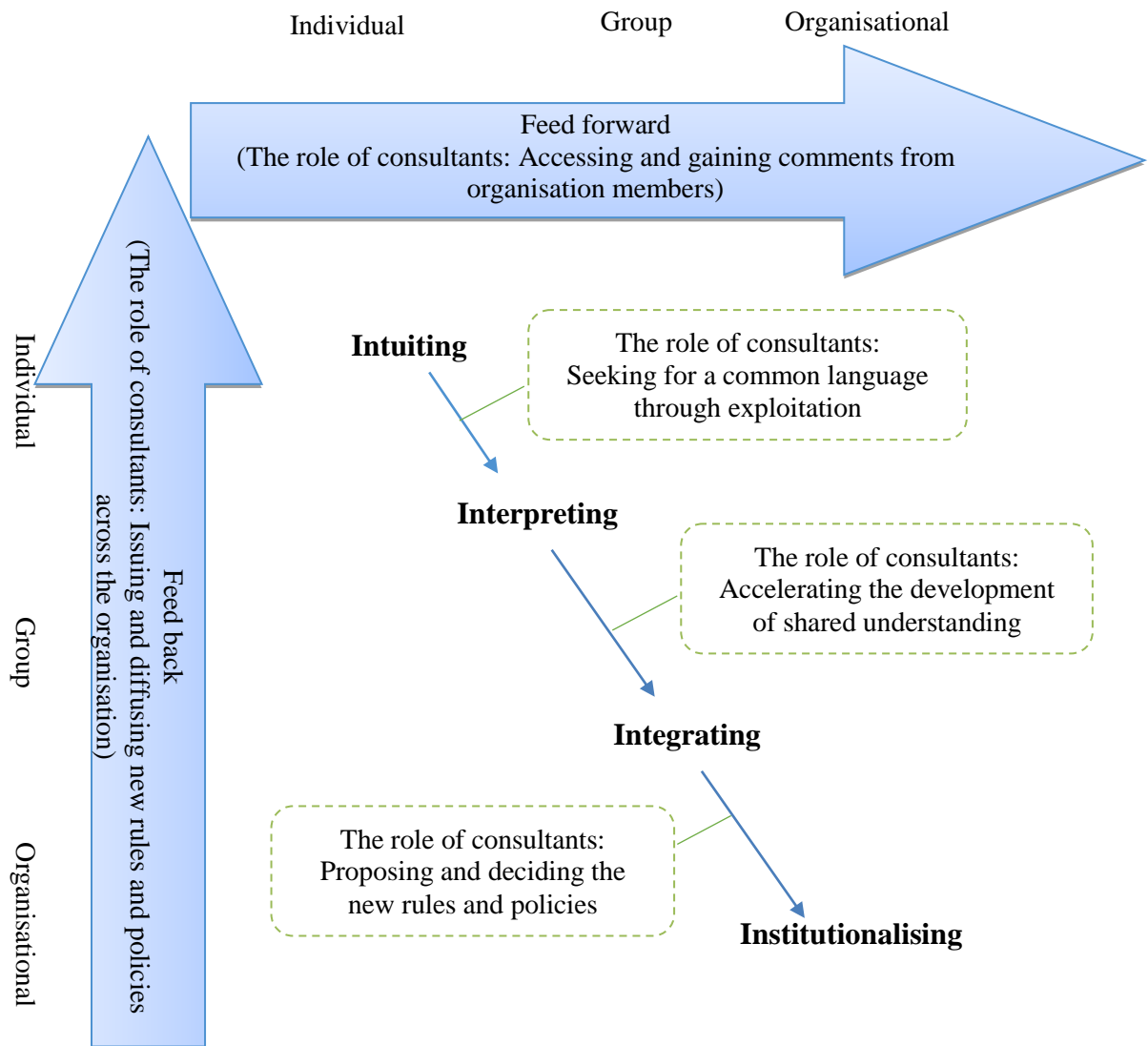
Diffusing the lean practices to, and gaining comments from, managers and employees

Once the new rules and procedures were issued by the project steering team, the managers and employees in the client organisations were required to practise or experiment them accordingly (Dyck et al., 2005). In addition, training courses, bulletins, posters and other learning activities were developed (or co-developed) by the consultants (and managers) to diffuse the use of lean practices throughout the whole organisation. Crossan et al. (1999) term the process of diffusing the institutionalised learning results to groups and individuals as feedback. Rules and procedures that feedback from the organisation level to the group and individual level can change the way that people think and behave (Crossan et al., 1999; Zietsma et al., 2002). Caldwell (2003) indicates that management consultants as change agents have played a critical role in influencing organisational change over a number of decades. Kipping and Armbrüster (2002) agree that changing the client organisation's activity system is one of the management consultants' key objectives. In the case studies it was found that the consultants were keen to promote and diffuse lean practices

throughout their client organisations; for example, they actively organised training courses and stressed the benefits of using lean practices during these training courses and meetings.

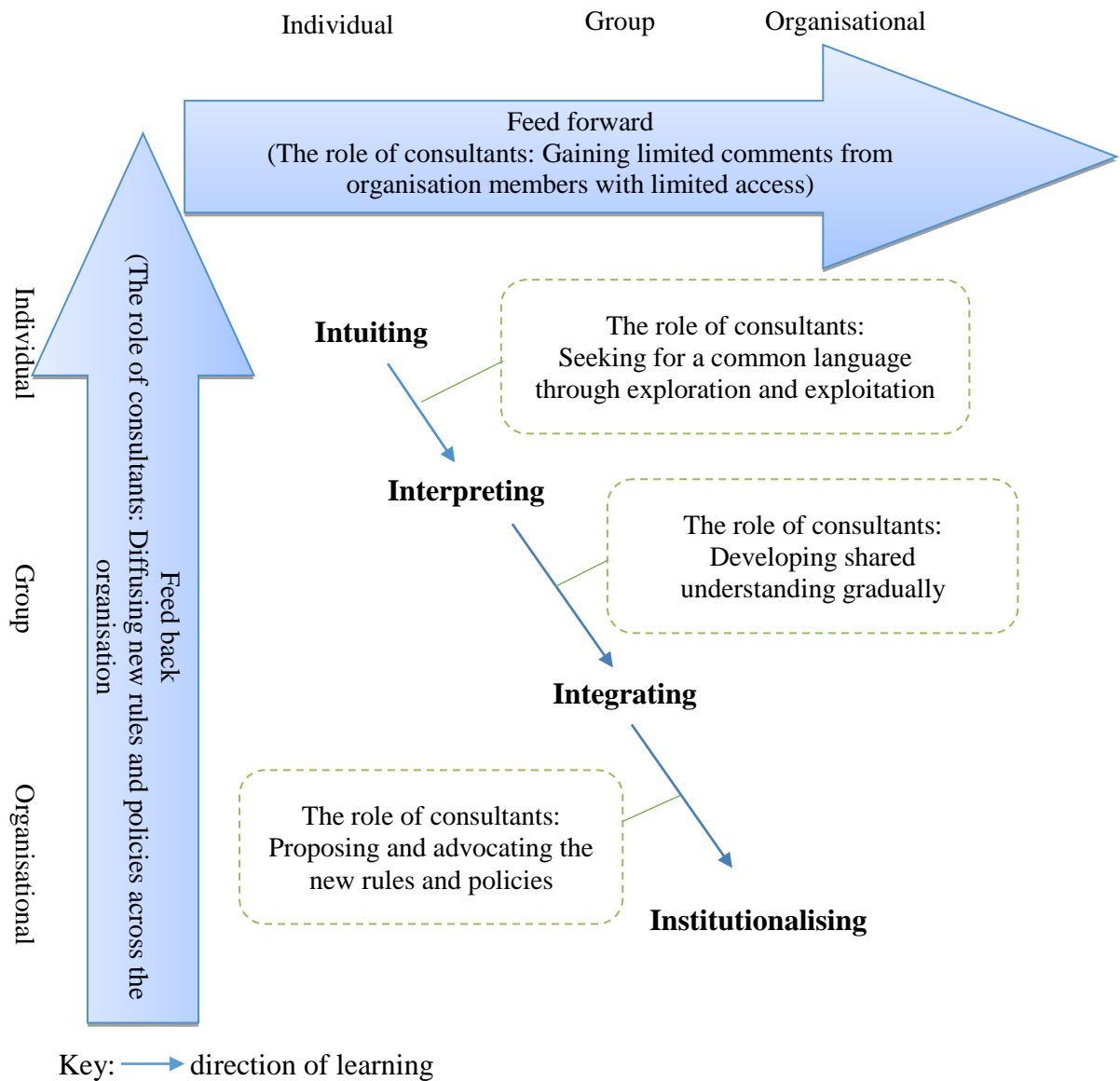
The results from the case studies also show that gaining comments from managers or employees after training or issuing the rules and procedures was somewhat neglected by the client organisations. In Crossan et al.'s (1999) study, the process of integrating new ideas from individual or group level to organisational level is termed feed forward. The case studies showed that for the consultants in residence (i.e. Textile Ltd, Glass Ltd), the consultants as managers were able to get access to managers and employees, and directly gained their comments or feedback about the newly issued rules and policies. For the consultants as external advisors (i.e. Autoparts Ltd, Fasteners Ltd and Nailguns Ltd), the consultants' accessibility to the managers and employees was constrained and, therefore, there seemed no guarantee of the revision of the rules and procedures. Figures 7.7 and 7.8 show the organisational learning frameworks for the consultants in residence and the consultants as external experts, respectively.

Figure 7.7 Organisational learning framework for consultants in residence



Source: Developed by the researcher based on Crossan et al. (1999)

Figure 7.8 Organisational learning framework for consultants as external advisors



Source: Developed by the researcher based on Crossan et al. (1999)

7.4.3 Type of learning adopted by the consultants

According to Argyris (1976, 1977), there are two types of learning: single-loop and double-loop learning. Single-loop learning focuses on error detection and correction while double-loop learning emphasises the change of values governing an individual's or organisation's actions (Argyris and Schon, 1996). This research focuses on the types of learning adopted by the consultants for three reasons. First, the researcher gained access to the client organisations through the consulting company and this enabled her to observe and discuss learning issues with the consultants. Second, according to Hines et al. (2011), organisations need time to achieve highest learning results. They suggest the more mature the lean implementation is, the more likely for double-loop learning will be observed in the organisation (Hines et al., 2011). As the client organisations in this research had just embarked on their lean journey, it was premature to assess the types of learning (particularly double-loop learning) adopted in these organisations. Finally, due to resource constraints (i.e. time, budget and access), it was difficult for the researcher to evaluate the types of learning adopted by the client organisations within a limited time period (i.e. three-month pilot study and three-month main case studies with non-participant observation).

The results from the case studies showed that the consultants mainly adopted a single-loop learning approach. For example, at the pre-implementation stage the consultants concentrated on convincing the owners of their service quality through the use of different evidence (e.g. external awards, qualifications and successful stories). During the implementation the consultants focused on providing training and formulating solutions based on the pre-developed project plans. Although the consultants

acknowledged the importance of involving the managers and employees in the development of solutions and project materials, as documented in section 7.2.1, persuading the senior managers or the owners to accept what they proposed still constituted an important part of the consulting practices. Again, in the post-implementation stage, the consultants were keen to adopt hard evidence (e.g. facts) that was related to the operation's performance to stress how good the projects were.

These results echo Argyris' (1991) argument that it is difficult for professionals such as management consultants to adopt the double-loop learning approach. Given the success that most management consultants have had in education or industry, they are more likely to become defensive and try to prevent themselves from being embarrassed or threatened (Argyris, 1991). The Chinese context can also strengthen this because keeping *mianzi* (i.e. face) is an important part in the traditional Chinese culture (e.g. Bond and Hwang, 1986; Zhao, 1994). In the case studies, although it was difficult for the researcher to evaluate how successful the consultants were before they joined the consulting company, it was evident that they liked to position themselves as highly successful and experienced experts in terms of conducting the lean improvement projects. In this sense, the consultants made considerable effort to defend their expert image and maintain their *mianzi* during the project; for example, by using different sources of evidence to show their professional work to their clients.

In addition to Argyris' (1991) argument, this research offered another explanation for consultants to adopt single-loop learning by considering the pressures from the consulting companies and client organisations. In the case studies, the consulting

company evaluated the consultants' performance based on whether they could submit the approved (i.e. normally by the owner of client organisation) monthly progress report on time. Hence, for the consultants, failure to do this led to a reduction of their salary or bonus. In other words, the consultants were actually driven to gain approval from the owner as quickly as possible rather than spending time openly discussing project plans and solutions with employees. As argued by Morgan (2006), an organisation's performance assessment system can inhibit double-loop learning by simply rewarding the success and punishing the failure.

Moreover, the pressure from the client organisation also made the consultants work in a stressful environment. Because the consultants were employed as experts, the owner and senior managers, as well as employees, constantly expected them to behave professionally, such as delivering training and giving solutions within the planned time schedule. Particularly, in the Chinese context, the juniors, such as less experienced middle managers and employees, were more likely to just follow the seniors, such as consultants, and rely on the consultants' decisions or advice. The consultants needed to satisfy and convince these demanding internal stakeholders (particularly the owner) by showing how professional they were and they had to ensure that the tasks included in the project could be completed on time. Failure to accomplish tasks on time may have resulted in the reduction of consulting fees or even have led to the termination of the contract. In this sense, the consultants were driven to focus on the outcomes and minimise the risk of being questioned rather than inviting more managers and employees to test their proposed solutions.

7.5 Conclusion and relevance to the thesis

This chapter analysed the results from case studies (Chapter 5 and 6) in relation to the theories and applied concepts presented in Chapter 2 and 3. The analysis of the results has provided an insight into the consultancy-involved change projects (e.g. lean improvement projects) in SMEs. It firstly explored the changes of the consultant-client relationship across different project stages and, in particular, the impact of SME characteristics on the consultant-client relationship. It also examined the reasons for the client organisations to adopt lean practices and how learning occurred at organisational, group, and individual levels in the consultancy-involved lean improvement projects. In addition, the reasons for the client organisations to abandon their existing practices and the role of consultants in organisations' abandonment of long-existing practices were discussed in the last section.

The aims and key questions of this research will be reviewed in relation to this analysis in the conclusion chapter. The academic contributions, practical implications for the practitioners and areas for future research will also be discussed in the next chapter.

CHAPTER 8 CONCLUSION

Chapter 8 Conclusion

8.1 Chapter Introduction

The primary aim of this research is to critique the consultant-client relationship in Chinese SMEs' lean improvement projects. Chapter 1 introduced the background, context, aim, and questions of this research. A detailed review of the applied and contextual concepts, and theories in relation to the area of this research was provided in Chapters 2 and 3, respectively. Chapter 4 discussed the methodology employed in this research. The preliminary results from the pilot case study were reported in Chapter 5 and the results from the main case studies were then presented in Chapter 6. Chapter 7 analysed the case studies results in relation to the theories and applied concepts. This final chapter re-examines the research questions in light of the results and analysis presented in the previous chapters, and it also reflects on the limitations of this study and identifies potential areas for future research.

This chapter consists of another five sections. The first section summarises the answer to each research question. The academic contributions of this research are discussed in the second section and the implications for practitioners are explained in the third section. Finally, the limitation and areas for future research are identified in the fourth and fifth sections, respectively.

8.2 Answers to the research questions

The primary aim of this research is to critique the consultant-client relationship in Chinese SMEs' lean improvement projects. To assist in addressing this, four research questions (see figure 3.2) were formulated in relation to three main research themes (i.e. the consultant-SME client relationship during lean improvement projects; organisations' abandonment of existing practices and organisations' learning of lean practices). These research questions are described below.

Research question 1: How do consultants and SME clients interact with each other during the lean improvement project?

A review of the management consultancy literature showed that there were different perspectives of the consultant-client relationship. While some researchers hold an expert view of the consultant-client relationship (e.g. Freidson, 2001; Greiner and Metzger, 1983), researchers from a critical perspective (e.g. Clark, 1995; Clark and Salaman, 1998) argue that consultants are impression managers. Researchers from the social learning perspective (e.g. Schein, 1990) contend that both the consultants and clients are important to the solution development in the consultancy project and they should jointly diagnose and formulate solutions. Nikolova et al. (2009), Sturdy et al. (2009a), and O'Mahoney and Markham (2013) point out that consultant-client relationship is more complicated than each of the above views because it is changeable during the consultancy project.

This research examined the changing nature of the consultant-client relationship by investigating the consultancy-involved lean improvement projects in five Chinese SMEs. Although the managers and employees in the client organisations would like to view the consultants as experts who should provide training and solutions, the consultant-client relationship in practice indeed changed across the stages of the project. At both the pre-implementation stage and the post-implementation stage, the consultants mainly focused on convincing the key decision makers in the client organisations of their quality of services through the use of both rhetoric and visual evidence, referred to in the literature as impression management. During the implementation stage, two consultants' roles were identified: "consultants in residence" and "consultants as external advisors" (see figure 7.2). This research argued that the consultants' involvement of the managers and employees in the client organisations actually underpinned the development of project materials and solutions.

Instead of asserting that the consultants should co-develop all of the solutions and project materials with the managers and employees, this research suggested that the consultants' involvement of their client organisation's members can vary in relation to the consultants' knowledge base of their client organisation's context (see figure 7.4). Moreover, during the implementation stage, the consultants' management of their clients' impressions was found to be a key part of their practices. This research suggested that the level of evidence provided by the consultants to their client organisation's members can vary in relation to their roles in the projects (see figure 7.3).

Research question 2: How do the structural characteristics of SMEs impact on the consultant and client relationship during the lean improvement project?

According to contingency theorists, most small organisations have a simple and flat organisational structure with highly centralised decision-making processes, low specialisation, standardisation and documentation/formalisation of management, and operations processes (e.g. Blau et al., 1976; Donaldson, 2001; Miller and Dröge, 1986; Pugh et al., 1969). A review of the literature of Chinese SMEs (e.g. Cunningham and Rowley, 2007; Redding, 1993) confirms that these structural characteristics are present. Consistent with this literature, the results showed that the organisational structures in the Chinese SMEs were flat with only a few management layers. Their decision-making processes were highly centralised and the owners normally acted as the key decision makers. The management and operations procedures in these organisations were relatively informal and they were not well documented. Although most managers and employees were asked to cover more than one task, their skill level and knowledge base of management practices, such as lean practices, were low.

This research found that the Chinese SME owners or senior managers played a central role in decision making. Since the traditional Chinese culture possessed a “command and control” characteristic (e.g. juniors should respect and follow seniors), Chinese SMEs were quite paternalistic (Redding, 1993) and seniors (particularly owners of SMEs) were commonly viewed as key clients by the consultants (see figure 7.5). Most of the managers and employees were low-skilled and did not have a sufficient knowledge base of management tools or practices (such as lean practices). Therefore, they usually positioned consultants as seniors and were more likely to rely on the

consultants' advice or decisions during the implementation stage of the project. Furthermore, the informality of the management and operations processes in the SMEs required the consultants (particularly those who were unfamiliar with their client organisations' industries) to actively become involved with the lower management layers who were highly visible to them due to the SMEs' flat organisational structure (such as middle managers and experienced supervisors) in the process of developing project materials and solutions.

Research question 3: What are the roles of consultants in client organisations' learning of lean practices?

It is believed by the institutional theorists that the main reason for organisations to adopt certain prevailing practices is to secure their legitimacy in the field that they are currently operating in (e.g. DiMaggio and Powell, 1983). The organisations operating in the same field can become more isomorphic to each other by adopting these prevailing practices (e.g. Tolbot and Zucker, 1999). This research showed that the reasons for the Chinese SMEs to adopt lean practices were more complicated than solely pursuing immediate economic benefits, such as cost reduction or productivity improvement, that were usually suggested by the lean literature. In accordance with institutional theory, this research found that pressures from the external environment, such as customer requirements and environment uncertainty, were the main reasons for the SMEs to adopt lean practices.

The organisational learning frameworks in the “consultants in residence” mode and “consultants as external advisors” mode were established based on Crossan et al.’s (1999) study (see figures 7.7 and 7.8). When learning occurs at the organisational level, it means that some of the learning results should be institutionalised and embedded into the organisation’s structure, rules, and procedures (e.g. Crossan et al., 1999; Dyck et al., 2005; Vera et al., 2011). This research showed that many of the rules and policies in relation to the use of lean practices were issued by the project steering teams (see table 6.13). The importance of using institutional mechanisms (Argyris and Schön, 1996; Stata, 1989) to sustain the adoption of lean practices (Womack and Jones, 2003) was recognised by both consultants and managers. Once the adoption of lean practices was embedded into the institutional mechanisms of the client organisations, it was less likely to be influenced by the consultants’ leaving the organisation (Argote, 2011).

This research showed that the development of rules and procedures was not a simple process (see figure 6.3). A certain degree of shared understanding of the use of lean practices needs to be developed between the consultants and managers in advance. The use of common language is critical to building the shared understanding between different organisation members (Crossan et al., 1999; Dyck et al., 2005). The case studies found a gap between the consultants’ and their clients’ knowledge base. The consultants’ contextual knowledge of client organisations, such as sector knowledge (Sturdy, 2009b), and their involvement of client organisational members could enable this gap to be closed, and the shared understanding (between the consultants and managers) of implementing lean practices to be built. However, the clients’ attitudes towards consultants (e.g. expert view), their use of organisational-specific or industrial-specific language (i.e. technical language or jargon) and culture issues (i.e.

traditional Chinese culture which highlights “command and control”) were identified as key inhibitors.

This research also found that the consultants in both roles were keen to diffuse the use of lean practices throughout the whole client organisations (López et al., 2005) and feed the newly issued rules and procedures backward (Crossan et al., 1999) to the client organisation members through organising training courses, and presenting posters and bulletins. However, for the “consultants as external advisors”, the consultant’s limited access to the managers and employees gave concern because it was difficult for the consultants to gain their comments on the rules and policies and then integrate these comments into the organisational level of learning.

This research further examined the type of learning adopted by the consultants. Argyris (1976, 1977) points out that there are two types of learning: single-loop and double-loop learning. While single-loop learning focuses on the detection and corrections of errors through the change of individuals or organisations’ action strategies, double-loop learning focuses on changing both the individual’s and organisation’s action strategies, as well as changing the values governing their action strategies (Argyris and Schon, 1996). Argyris’s (1991) study argues that professionals (such as management consultants) are unlikely to adopt double-loop learning due to the defensive routine that they commonly adopt. The results from this research confirmed and extended Argyris’s (1991) study. It showed that three types of pressures led the consultants to adopt single-loop learning. Firstly, the consultants would like to position themselves as experts (Kipping and Armbrüster, 2002) when communicating

with their clients and, particularly, in the Chinese context, keeping *mianzi* (i.e. face) (Zhao, 1994) in front of juniors (such as middle managers and employees) was important. Therefore, they needed to prevent their “expert image” from being challenged and questioned by adopting a defensive routine. Secondly, the consultants encountered pressure from the consulting company. The consulting company rewarded those consultants who could provide an approved project progress report on time and punished those who failed to do so (Morgan, 2006). In this situation, the consultants were driven to focus on accomplishing their tasks as quickly as possible rather than spending too much time discussing their tasks openly with the client organisation members. Moreover, the managers and employees in the client organisations viewed the consultants as experts (i.e. seniors), and expected to gain the solutions from consultants. In this sense, the stressful work environment also drove the consultants to minimise the risks that may negatively impact on their work efficiency.

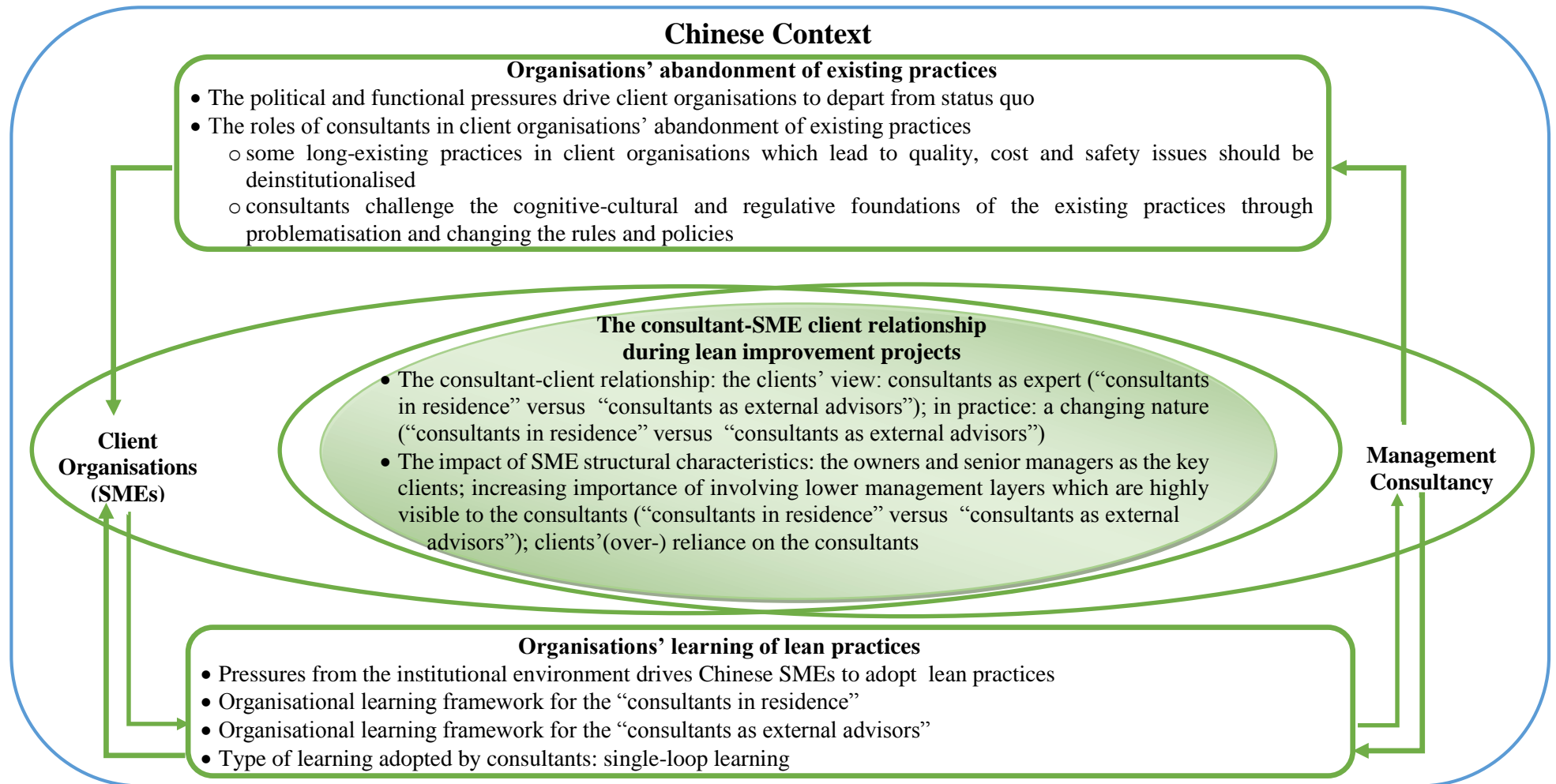
Research question 4: What are the roles of consultants in client organisations’ abandonment of existing practices?

Organisations are more likely to deinstitutionalise and abandon their existing practices and change their status quo when they encounter political pressure, function pressure, and social pressure (Oliver, 1992). The results from this research showed that the owners and senior managers in the client organisations decided to depart from their status quo because they were experiencing political and functional pressures, including customer dissatisfaction and increasing market competition after the financial crisis. The consultants were employed because the client organisations

lacked the internal expertise to change their status quo and adopt lean practices. During the implementation of lean practices, this research confirmed that some long-existing practices which led to quality, safety, and cost issues in the client organisations should be deinstitutionalised.

This research found that the consultants actively challenged and eroded the legitimacy of long-existing practices. Through the problematisation of these long-existing practices (Maguire and Hardy, 2009), the consultants distanced the adoption of existing practices from their cultural-cognitive foundation (Scott, 2014). This research further pointed out that the efficiency of the consultants' problematisation could vary in relation to their knowledge base of the client organisations' context. Compared to the consultants as external advisors, the consultants in residence required less time to develop a common language to problematise the existing practices and interpret lean practices. Moreover, the consultants were also keen to distance the adoption of these existing practices from their regulative foundation in the client organisation; for example, new rules and policies of performance assessment were drafted and proposed by the consultants. However, the efficiency of challenging the regulative foundation of the existing practices could also vary in relation to the roles that the consultants played in the projects. Compared to the consultants as external advisors, the consultants in residence enabled the consultants to more efficiently change the existing rules and policies. Figure 8.1 summaries the results from the case studies.

Figure 8.1 A summary of the results from case studies



Key: → direction of learning; □ contextual boundary
 Source: Developed by the researcher

8.3 Academic contributions

This exploratory research provides an insight into consultancy-involved improvement projects, such as lean improvement projects in Chinese SMEs. To date, this is an area that is under researched by academia. Table 8.1 summarises the main contributions of this research. The following sub-sections provide a more detailed discussion of the contributions made by this research.

Table 8.1 A summary of contributions

Research gaps	Contributions
Little academic literature has addressed the changing nature of the consultant-client relationship throughout the consultancy project from both the consultancy and client organisation's perspectives.	This research found that while the SME clients would like to view consultants as experts, the consultant-client relationship indeed changed throughout the project. Two consultants' roles, "consultants in residence" and "consultants as external advisors" were identified and their adoption of consulting practices were compared.
The impact of SME structural characteristics on the consultant-client relationship is under researched.	This research found that although the owners were the key decision makers in SMEs, it was important for the consultants to involve lower management layers in problem diagnosis and solving.
Little academic literature has directly focused on the roles of consultants in organisations' learning of new practices such as lean practices.	This research empirically investigated learning activities in the client organisations during the consultancy projects. Two organisational learning frameworks in relation to the two consultants' roles were developed.
There is a lack of research on the outsider-driven deinstitutionalisation such as the roles of consultants in organisations' abandonment of existing practices.	This research showed that in addition to the cognitive-cultural foundation of the existing practices through problematisation the consultants could also erode the regulative foundation by participating in changing the rules and policies in the client organisations. The efficiency of consultants' problematisation of existing practices and change of existing organisational rules and policies were compared between the two consultants' roles.

Source: Developed by the researcher

8.3.1 Contributions to theory

In addition to organisational learning, this research also adopted contingency theory and institutional theory. Prior to discussing the theoretical contributions, it is worth reflecting on the usefulness of employing “competing theoretical perspectives” (i.e. contingency theory and institutional theory) in the same research. While contingency theory suggests that there is no “one fits all” way to manage the organisation, institutional theory highlights the organisation’s conformity to the external environment.

Although these two theories offer different perspectives on organisational change and management, Gupta et al. (1994) and Scott (1987) suggest that these two theories should be used together to better understand changes in organisations. Scott (1987) argues institutional theory can be positioned as the complementary to other rational or efficiency arguments like contingency theory. In this sense, the adoption of contingency theory and institutional theory enabled the researcher to gain a more comprehensive understanding of the consultancy-involved improvement (such as lean) projects in Chinese SMEs. For example, this research used contingency theory to explain the impact of organisational size on the consultant-client relationship and it adopted institutional theory to explore the roles of consultants in deinstitutionalising existing practices. Moreover, this research mainly focused on one contingency variable – organisational size and the deinstitutionalisation part of institutional theory. The selective use of these two theories made them more manageable within the same research. The decision to triangulate theories needs to be done with care and

researchers must be fully aware of any competing and complementary perspectives that they need to manage whilst designing and executing their research.

Contingency theory

From this research, two contributions were made to contingency theory. First, it tested and confirmed the structural characteristics of small organisations that were suggested by Blau et al. (1976), Miller and Dröge (1986), and Pugh et al. (1969) through providing empirical evidence from Chinese SMEs. The results from the case studies showed that the Chinese SMEs were paternalistic and had a simple and flat organisational structure (Redding, 1993). By triangulating the perspectives of the owners, managers, employees, and consultants, it was evident that the decision-making processes in these five Chinese SMEs were highly centralised and the owners normally played the role of key decision-makers. The number of management layers in these organisations was also relatively small. In addition, the management and operations processes in these client organisations were informal. Managers and employees were asked to cover more than one task (i.e. low specialisation) but their skill level was very low (Cunningham and Rowley, 2007). Hence, as suggested by contingency theory, the structure of SMEs was simple with a high level of centralisation, and a low level of overall specialisation, standardisation and formalisation.

Second, this research extended the understanding of Blau et al. (1976), Miller and Dröge (1986), and Pugh et al.'s (1969) studies to the management consultancy projects

by examining how the SME structural characteristics could impact on the consultant-client relationship (see figure 7.5). The case studies indicated that in the context of Chinese SMEs, the owners and senior managers were positioned as the key clients by the consultants. The lower management layers (such as middle managers and employees) that were highly visible to the consultants became more important for the consultants during problem solving. However, the managers and employees in the SME client organisations did not possess a sufficient knowledge of the management tools and methods. Particularly, in the Chinese context, the traditional Chinese culture inherits a “command and control” characteristic which assumes that juniors should follow their seniors. Therefore, managers and employees are likely to view the consultants as experts and seniors, and expect the consultants to provide them with solutions.

Institutional theory

This research made two areas of contribution to institutional theory. First, empirical evidence was found in this research to support both Oliver’s (1992) propositions of the organisations’ deinstitutionalisation of their long-existing practices, and DiMaggio and Powell’s (1983) propositions of institutional isomorphism. The SME owners and senior managers indicated their decisions to depart from the status quo were driven by political and functional pressures, such as the imminent threat of failure (Oliver, 1992). Instead of pursuing internal efficiency, the client organisations’ adoption of lean practices was triggered by pressures from the external environment, such as customer requirements and environmental uncertainty (DiMaggio and Powell, 1983). The adoption of lean practices could enable the client organisations to gain more legitimacy in the field that they were currently operating in (Tolbot and Zucker, 1999).

This research also shed light on an under-researched area in institutional theory - the outsider-driven deinstitutionalisation (Maguire and Hardy, 2009) - by showing the role of consultants in deinstitutionalising the existing practices in their client organisations. In contrast with Maguire and Hardy's (2009) study, which highlighted how outsiders could challenge the cognitive-cultural and perhaps moral foundations of the existing practices (Scott, 2014) through problematisation, this research argued that the consultants could erode both of the cognitive-cultural and regulative foundations of the existing practices in their client organisations through problematisation and changing rules or policies. This research further examined the outsider-driven deinstitutionalisation in the consultants in residence role and the consultants as advisors role. In comparison to the consultants as advisors, the efficiency of problematisation, and changing rules and policies in the consultants in residence role could be relatively higher.

Organisational learning

Although learning was viewed as central to the consultancy projects, little academic literature has directly linked organisational learning with management consultancy (Sturdy et al., 2009a) and focused on the roles of consultants in organisational learning. The organisational learning frameworks developed by Crossan et al. (1999) has explained how learning occurred at different levels of the organisation, their frameworks has not explicitly consider organisational learning in a situation of external intervention, such as management consultancy. This research enriched the understanding of learning processes in the improvement projects by empirically investigating the learning activities that occurred at different levels of the client

organisations and providing a new insight into the role of consultants in organisational learning. Based on Crossan et al.'s (1999) framework of organisational learning, two new frameworks have been developed that illustrate organisational learning with the two roles of consultancy identified in this study (see figures 7.7, 7.8).

In contrast with Kipping and Armbrüster's (2002) study, which highlighted the "otherness" between the consultants' and clients' knowledge bases, this research showed that the sector knowledge (Sturdy et al., 2009b) possessed by the consultants and clients could soften this "otherness" and facilitate organisational learning. Drawing on Sturdy et al.'s (2009b) study, this research further suggested that the consultants, who possessed both the sector knowledge of their client organisations and the knowledge of certain management practices (such as lean practices), could assist their client organisations to learn these practices more efficiently.

This research also tested the adoption of the two types of learning (i.e. single-loop and double-loop learning) that were proposed by Argyris (1976, 1977) in the consultancy projects. It confirmed Argyris's (1991) proposition that management consultants were more likely to adopt single-loop learning. This research showed that since keeping *mianzi* (i.e. face) in front of juniors (such as middle managers and employees) was critical to the Chinese culture (Zhao, 1994), the consultants adopted a defensive routine to prevent their expert image from being questioned and challenged. However, in contrast from Argyris's (1991) study, this research pointed out that pressure from the consulting company, which rewarded success and punished failure (Morgan, 2006), drove the consultants to focus on how to accomplish the tasks as quickly as possible

and the stressful work environment in the client organisations required the consultants to concentrate on their work efficiency.

8.3.2 Research methodology

Two methodological gaps in the field of management consultancy were discussed in section 4.4. Firstly, most management consultancy studies have relied on a single research method – interviews. Secondly, most studies focused on presenting one party’s perspective (i.e. either the consultant’s perspective or the perspective of the managers in the client organisations) on the consultancy activities. This research contributed to bridging these gaps through employing a multiple-case study research method. By overcoming the “inaccessibility” (Sturdy et al., 2009b) to the consultancy projects, this research investigated five consultancy projects that were undertaken in five Chinese SMEs. During the case studies, the researcher was able to:

- conduct semi-structured interviews with both consultants and different members of the client organisations, such as owners, senior managers, middle managers and employees on the shop floor;
- directly (non-participant) observe the working places and consultancy activities in the client organisations, such as shop floor, project steering team meetings and training courses; and,
- collect project and company documents, such as project plans, meeting memos and project progress reports.

The inclusion and triangulation of multiple data sources and data collection methods provided a richer understanding of consultancy activities and enhanced the construct

validity of this research. As a multiple-case study research, the comparisons drawn from different consultancy projects also improved its generalisability (see table 4.9).

8.3.3 Implications for academia - contributions to the applied concepts

The previous management consultancy literature has provided separate views of the consultant-client relationship, including expert model, critical model, and social learning/process model (Nikolova and Devinney, 2012). Echoing Nikolova et al. (2009) and Sturdy et al.'s (2009b) studies of the dynamic relationship between the consultants and clients, this research contributed to the area of management consultancy research by offering an insight into the changing nature of the consultant-client relationship throughout the consultancy projects. While the managers and employees in the client organisations would like to view the consultants as experts, the consultant-client relationship changed over the different project stages. In addition to the consultants as external advisors, which was widely documented in the management consultancy literature (see table 2.1), an unusual role of the consultants – the consultants in residence (see figure 7.2) – was identified in this research. The different roles of the consultants (i.e. the consultants in residence and the consultants as external) that were found in this research also implied that the definition of management consultancy needed to be re-considered. While most of the literature viewed management consultancy as an advisory service (see table 3.1), the results from the case studies showed that management consultancy could also provide the managerial service to their client organisations.

In contrast with the previous studies of management consultancy, which presented either the consultancy's point of view or the managers' point of view (Alvesson et al. 2009; Kakabadse et al., 2006), the voices from lower management layers (such as middle managers and employees) were considered in this research when investigating the consultant-client relationship. The inclusion of the perspectives from different management layers extended the understanding of the interaction between the consultants and clients from senior management levels to both the managers' and employees' levels. The scope of the investigation of the consultant-client relationship can be further extended to the external stakeholders in the future by considering the roles of government and associations. Through the lens of contingency theory, this research developed a framework to highlight how the client organisations' context (i.e. SME structural characteristics) would impact on the consultant-client relationship. This framework can be tested in other consultancy projects, for example, the consultancy projects in the UK or U.S.

8.4 Practical implications

The practical implications from this exploratory research can be divided into three parts: implications for Chinese SMEs, consulting companies, and policy makers.

Implications for Chinese SMEs

The results from the case studies suggested that a number of actions need to be developed within the Chinese SMEs to assist the consultancy-involved change projects. Reflecting on the case studies results, a checklist is provided for the Chinese

SME managers to consider when employing the management consultancy (see table 8.2).

Table 8.2 A checklist for Chinese SME managers when employing the management consultancy

Self-check questions for Chinese SME managers	Yes/No
Are we clear about the services needed from consultants?	
Have we explained these services explicitly to the consultants?	
Have we considered the consultants' industrial background and the experience of adopting the practices that we need when selecting them?	
Are we clear about the objectives of the consultancy project?	
Are we clear about the priorities of the objectives of the consultancy project?	
Are we clear about the indicators to measure our objectives?	
Have we explained the objectives and indicators explicitly to the consultants?	
Have we provided sufficient up-to-date contextual information for the consultants?	
Have we included middle managers (e.g. line managers) and/or employees who are familiar with the problems in our project steering team?	
Have we had an agreement about the accessibilities, responsibilities and authorities given to consultants and other project steering members?	
Do other managers and employees have the opportunity to participate in the consultancy project?	
Have we established a formal system to collect feedback of the implementation of the project from managers and employees?	

Source: Developed by the researcher

First, the owners and senior managers need to consider the criteria that they use for selecting consultants. Instead of solely focusing on choosing consultants who have the expertise of some specific management practices and tools, such as lean practices, the consultants' knowledge base of the industries and sectors in which these Chinese SMEs are operating should be considered as an important selection criterion.

Second, the owners and senior managers should have a clear understanding of the objectives of their change projects and the priorities of these objectives should also be considered in advance. In the case studies, the owners presented their expectations in a very broad sense. Hence, it was difficult for them to assess the outcomes of the projects while the consultants had more freedom to select positive outcomes to justify their performance. Since the pre-developed plan may need to be changed during the implementation stage, a list of objective priorities can ensure that the most important tasks have been accomplished.

Third, there is a need to involve representatives from all management layers (including middle managers and experienced employees) in the early stages of consultancy projects. The involvement of lower management layers at the early stages can improve the consultant's understanding of their client organisations, as well as the client organisation member's understanding of change projects.

Although Chinese SME managers and employees may have limited knowledge of advanced management practices and tools, they should not underestimate their roles

in the change projects. Instead of solely viewing consultants as experts and relying on the consultants' provision of solutions, they are encouraged to be more active during the development of solutions. In addition, a formal system that could collect new ideas from managers and employees needs to be established to facilitate communication between the consultants and the client organisation's members.

The case findings show that the five client organisations share many structural characteristics that are generally suggested by the contingency literature (e.g. Blau et al., 1976; Miller and Dröge, 1986; Pugh et al., 1969). In this sense, most criteria included in the checklist (i.e. table 8.2) may be also applicable to SMEs in other countries such as UK. However, given the "command and control" defining characteristic of Chinese SMEs which has its root in Confucianism (Whitley, 1992), some criteria such as the inclusion of lower management layers and employees' participation in projects may be more specific to SMEs in China and other Asian countries (e.g. Japan). As the checklist proposed is generally based on the findings from five Chinese SMEs, further research is required to investigate the differences between Chinese SMEs and other western SMEs and the applicability of the checklist should also be tested outside the Chinese context in the future.

Implications for consulting companies

While the owners and senior managers in SMEs should revise their criteria for choosing the consultants, the consulting companies are also advised to re-think the criteria that they have adopted to recommend or allocate the consultants to their client

organisations. It is suggested by the case studies that the consultant's past working experience should be taken into consideration by the consulting companies when recommending or allocating them to the SMEs.

The case studies showed that the consultants encountered pressure from the consulting companies, which drove them to focus on outcomes and how to accomplish their work quickly and perhaps ignoring some opportunities to obtain important ideas from other members of the client organisation. In this sense, the reward and punishment system in the consulting companies may need to be changed. Instead of simply rewarding success and punishing failure, the consulting companies need to encourage the consultants to be more reflective of their work (e.g. the problems and difficulties when conducting projects in SMEs and how to deal with these problems).

The consulting companies would like to convince their clients of their expertise by showing how professional and successful they are. However, the case studies suggested that, in SMEs, involving managers and employees in the development of solutions and project materials was a critical consulting practice. Over-emphasis on the expert image of the consultants would result in their inaccessibility to the managers and employees particularly in the Chinese context, SME managers and employees would like to view consultants as seniors and expect to follow the solutions provided by the consultants. This implies that the consulting companies need to re-think and perhaps change the focus of their current impression management strategies from solely showing how professional they are to showing how valuable the involvement of the managers and employees is.

Implications for policy makers

The case studies found that the owners and managers in the Chinese SMEs had a limited knowledge base of the management practices and tools, and the middle managers and employees did not have many opportunities to attend formal training courses. Hence, it is suggested that more formal, government supported, training programmes on advanced management practices and tools (such as lean practices) should be available to SMEs. The publication of the best performing exemplar SME case studies can also facilitate this training process. Government-assisted programmes (e.g. Manufacturing Advisory Service (UK)) and training approaches (e.g. Training within Industry (TWI)) adopted by other developed countries should be considered by the Chinese Government and SME associations.

There is also a need for the Government to organise more social networking events (such as seminars or conferences) or establish open-accessed information platforms (e.g. blogs) to enhance the communications between the Chinese SME community and the consulting industry. Social events and information platforms can assist SMEs to better understand the consulting process and practices, and allow SMEs to have more options when choosing the consulting companies. In addition, they can provide more opportunities for consulting companies to better understand the needs of the SME community, such as the main challenges or difficulties faced by the Chinese SMEs and what kind of help is expected from consulting companies.

8.5 Limitations

Although the concerns of the validity and reliability of this research were discussed in Chapter 4, there are still some inevitable limitations in relation to this research and the case study method adopted. To improve the external validity of this research, purposeful case selection and replication logic were applied. The main limitations of this research were the sample size and the scope of the case studies. Although consultancy-involved lean improvement projects in five Chinese SMEs were investigated, they were all clients from one consulting company. Other consulting companies may adopt different consulting activities or practices. In particular, the consultants in residence mode that was observed in this research needs to be tested in other consultancy projects. In addition, while the interviews and documentation covered four stages of the projects, the direct, non-participant observation mainly focused on the implementation stage and the results assessment stages. The investigated Chinese SMEs all came from the manufacturing sector while Chinese SMEs from the service sector were not included. In this sense, the structural characteristics of SMEs observed in this research needs to be further tested in service SMEs. This research only focused on one contingency variable – organisational size. Other contingency variables such as technology and environment should also be studied in the future.

While a number of tactics (such as the triangulation of data sources and data collection methods, establishment of the chain of evidence, and inviting key informants to examine the case study reports) were applied to improve the construct validity, there is a need to acknowledge the subjective element in this research. Given the

researcher's high degree of familiarity with the Chinese context (e.g. past experience of living and studying in China), personal bias may occur in the data analysis. It is hoped that the use of the above tactics along with the transparent data collection processes can provide the construct validity concerns with a robust response.

8.6 Areas for future research

Since the consultancy-involved change in SMEs is inadequately researched, a number of areas for future research are proposed. First, this research investigated the consultancy-involved lean improvement projects in Chinese SMEs that were operating in the manufacturing sector. In the future, the external validity of this research can be extended by identifying the structural characteristics of SMEs in other countries with different culture or industry sectors. In addition, they could test whether the impact of organisational size on the consultant-client relationship found in this research is applicable to other context. The applicability of the "consultants in residence" mode found and the proposed checklist (i.e. table 8.2) in this research should also be tested through surveying (e.g. sending questionnaires to) more SMEs and consulting companies.

This research mainly focused on one contingency variable – organisational size. In the future, the investigation of contingency variables should be expanded to other variables such as environment and technology. There is a need to conduct further research on the impact of environment (i.e. social, political and economic environment)

and technology (e.g. batch production) on the consultant-client relationship and lean implementation.

This research covered four consultancy stages, including the initial contact stage, preparation stage, implementation stage, and results assessment stage. For future studies, the scope of the case studies should be expanded from focusing on what was happening during the consultancy projects to what would happen to the client organisations after the consultants have withdrawn, including the extent to which the use of management practices introduced by the consultants are sustained in the client organisations and whether they can continue to benefit from the improvements made during the consultancy projects.

This research studied the client organisations' learning of these new practices (such as lean practices) during the consultancy projects. The results show that it was not easy for the consultants and managers or employees to build a shared understanding of the lean practices. Future research can include more client organisations to identify the best or most appropriate learning approaches that they have experienced in the consultancy projects. Since the SME client organisations in this research just embarked on their lean journey, their adoption of lean practices were still in its infancy. In the future, it is also the intention to develop longitudinal case studies to assess how double-loop learning occurs when the lean implementation become more mature in the client organisation.

It is shown that although the SME client organisations learnt new practices (such as lean practices), they also had to abandon some long-existing practices that seemed inappropriate to lean practices. Future research should explore the impact of abandoning long-existing practices on the organisation's members' interests; for example, whether any "good practices" or "good traditions" that were enjoyed by the employees have also been abandoned in the process and how employees in the client organisations respond to the organisational changes that are promoted by the consultants.

In contrast to research SMEs who have employed management consultants, it may also be interesting to investigate those SMEs who proactively reject the use of management consultants, including the reasons for them to proactively refuse to hire management consultants or the concerns that they have in terms of using management consultants, as well as the way that they have been employed to conduct improvement projects (such as lean improvement projects).

As a new network platform that collects the information of both management consultants and Chinese SMEs is being developed by China Enterprise Confederation Management Advisory Committee (CECMAC), this may provide more opportunities for SMEs to use consultants and build a long-term relationship with consultants. Hence, in the future, more longitudinal case studies can be conducted to investigate the evolution of the relationship between Chinese SMEs and management consultancy.

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APPENDICES

Appendices

Appendix 1 List of published papers

Hu, Q, Found, P, Williams, S and Mason, R. 2014. The role of consultants in organizational learning. *Journal of Management Policy and Practice* 15(4), pp.29-39.

Hu, Q, Williams, S, Mason, R, and Found, P. 2014. The Consultant-Client Relationship in Small and Medium Enterprises (SMEs). *The 14th International Conference on Knowledge, Culture, and Change in Organisations*, 4 -5 August, Oxford, UK.

Hu, Q, Found, P, Williams, S and Mason, R. 2013. The role of consultants in organizational learning. *Proceedings of Production and Operations Management Society 24th Annual Conference*, 3-6 May, Denver, U.S.A.

Hu, Q, Williams, S, Mason, R, and Found, P. 2013. The exploration of the conceptual links between sustainable lean and institutionalization. *Proceedings of British Academy of Management Conference*, 10-12 September, Liverpool, UK.

Found, P, Hu, Q, Williams, S, Mason, R. 2012. The connection between organizational learning and lean production. *Proceedings of Production and Operations Management Society 23rd Annual Conference*, 20-23 April, Chicago, U.S.A.

Hu, Q, Williams, S, Mason, R, Found, P and Evans, B. 2012. Learning and continuous improvement: is there a link? *Proceedings of British Academy of Management Conference*, 11-13 September, Cardiff, UK.

Hu, Q, Williams, S, Mason, R, and Found, P. 2011. Lean implementation within SMEs: A literature review. *Proceedings of European Operations Management Association Conference*, 1-6 July, Cambridge, UK.

Appendix 2 Invitation Letter



Logistics and Operations Management Section
Cardiff Business School
Aberconway Building
Cardiff University
Cardiff, UK
CF10 3EU
Email: HuQ1@cardiff.ac.uk

Company address

Dear (name),

I am a second year PhD student at Cardiff Business School conducting academic research on the consultancy-involved lean improvement projects in Chinese SMEs. The main purpose of my research is to examine the consultant-client relationship in Chinese SMEs' lean improvement projects. The key research themes included in my research are: the changes of the consultant-client relationship in SMEs, the roles of consultants in client organisations' learning of lean practices and abandonment of existing practices. As your company is currently undertaking a lean improvement project with [insert the name of consulting company], I write to enquire whether your organisation will participate in my research. This will involve conducting interviews with members of staff who are participating in the consultancy project and members of management team, and observation of the workplace. The results from this research will be submit to the participant organisation for examination and this research will benefit the participant organisation by providing recommendations to better manage its relationship with consultants in the future.

To protect the participants' privacy, my research will comply with the highest ethical standards and will not disclose any interviewee's information to any third party. I also promise all data will be used only for research purposes.

As above, I am making a request that I be provided access to interviewing managers and workers and observation of your organization whilst undertaking the lean programme. I look forward to actively working with you to complete this research.

Thank you in advance for your support.

Sincerely,
(Legible signature)

Qing HU

Doctoral student
Logistics and Operations Management Section
Cardiff Business School, Cardiff University

Appendix 3 Pilot Case Study (Autoparts Ltd) – interview guide adopted in the first two weeks

For consultants:

1. When do you start to do lean projects?
2. How many lean projects have you done/is doing/plan to do?
3. Would you mind to share your past experience of doing lean projects (e.g. types of client organisations, roles of consultants, good experience and bad experience)?
4. Where do you learn lean based knowledge?
5. Before conducting the lean project, what kinds of preparations do you usually do?
6. Could you please briefly describe your plan for the lean project in this company?
7. How many stages does the project have (such as pre-implementation stage etc.) and could you please briefly explain the tasks included in each stage?
8. Would you mind to share your training plan for this lean project (e.g. core training themes, attendees, timetable)?
9. What are your expectations about this lean project?

For the owner and managers:

1. When did your company begin the lean journey?
2. Is it the first lean project for your company and could you please share some of the company's previous experience about lean implementation (if any)?
3. Before any training in this lean project, have you already known the idea of lean? If so, where does the information come from and how do you obtain it?
4. Why does the company want to change its current performance and adopt lean?
5. Why does the company hire consultants to conduct the lean project?
6. Who make the decision to select the consultancy and do you know the selection criteria?
7. Before starting the lean project, what kinds of resources did the company invest?
8. How many stages does the project have (such as pre-implementation stage etc.) and could you please briefly explain the tasks included in each stage?
9. What are your expectations about this lean project and do you think the lean project is useful for the company?

For employees:

1. How many years have you worked in the company?
2. Could you please briefly describe your job activities?
3. Have you heard "lean" before? If so, where did you get the information?
4. Do you have any idea about "lean" now? If so, could you please describe it?

Appendix 4 Pilot Case Study (Autoparts Ltd) – observation guide adopted in the first two weeks

Observation sheet-for shop floor

Sheet number:_____ **Date:**_____ **Company name:**_____

Start time:_____ **End time:**_____ **Department/areas:**_____

No. of people:_____ **Job type:**_____ **Process being observed:**_____

Description/snapshot of process:

Summary of interaction between people in the vicinity:_____

Appendix 5 Pilot Case Study (Autoparts Ltd) – the main interview guide

For the owner and managers:

1. Initial

- 1.1 Have you attended the initial contact meeting?
- 1.2 If no, how and when do you know the company would like to hire the consultants to do the lean project? (No need to answer the following questions in this section)
- 1.3 If yes, how many initial contact meetings have you attended and who else have attended the initial contact meetings?
- 1.4 What kinds of preparations do you need to do before attending the meeting, for example, have you prepared and provided introductory documents to the consultants?
- 1.5 What are the key tasks/activities/topics for the initial meetings and what have the consultants done in the meetings?
- 1.6 How do you think about the consultants' performance at this stage (e.g. professional, experienced or not)?
- 1.7 What is your role in the initial contact meetings and what have you done during the meetings (e.g. introduced the company, explained the problems etc.)?
- 1.8 Who do you think is the key decision maker and why do you think so?

2. Preparation

- 2.1 What kinds of activities have you involved during the preparation (e.g. interviews, panel meetings)?
- 2.2 What kinds of topics have been discussed and what kinds of information have you given to the consultants during the preparation?
- 2.3 How can you communicate with the consultants during the preparation?
- 2.4 Have you been involved in the project plan-making process?
- 2.5 If no, how and when can you know the project plan? Do you think they should include you in the plan-making process and why? (No need to answer the following questions in this section)
- 2.6 If yes, whose ideas do you think has dominated the plan-making process (e.g. the consultants or managers) and what is your role in the plan making process?
- 2.7 Who actually decide the plan and why do you think so?
- 2.8 When working with consultants in plan-making processes, have you faced any problem or difficulty? If so, how do you deal with it?
- 2.9 How do you think about your involvement in the plan-making process (e.g. helpful, useful) and why?

3. Implementation

- 3.1 Who have been involved in the project steering team and how does the project steering team work (e.g. decision-making process)?
- 3.2 How do you view your role in the project steering team (for the person who has been involved in the project steering team)? How do you view the consultants' role?
- 3.3 Who do you think is the key decision maker when implementing the lean project and why do you think so?
- 3.4 During the implementation, have the involved departments kept any record? If so, what kinds of activities have been recorded? And who are responsible for keeping records?
- 3.5 How could you communicate with other employees and consultants during the implementation?
- 3.6 Why does the company include changing rules and policies as the important part of the implementation? Do you have any issue when changing them?
- 3.7 What kinds of training have you had in terms of learning lean based knowledge and what is your role in the training (e.g. student, designer)?
- 3.8 To what extent do you think the training you have had is relevant to your job situation?
- 3.9 Do you think it is easy for you to understand the content of the training designed by the consultancy? Why?
- 3.10 Do you have any difficulty during training? If so, what kinds of difficulties do you have? And how do you deal with them? Have they been improved?
- 3.11 Could you please also share some good experience about training with me?
- 3.12 In addition to training, does the consultancy or company provide other sources or activities for you to learn lean based knowledge? Can you give me some examples?
- 3.13 Do you think some of the existing practices in your company are not appropriate to lean practices? If so, what are these practices and why do you think so? And how can you get rid of these practices?

4. Follow-on

- 4.1 Have the pre-developed plan been changed or adjusted? If so, which task has been changed and why?
- 4.2 Who can made the decision to change the plan?
- 4.3 Do you have any difficulties when changing the plan? If so, what kinds of difficulties do you have and how do you deal with them?

For employees

1. Initial

- 1.1 How and when do you know the company would like to hire the consultants to do the lean project?

1.2 Do you have any chance to attend the initial contact meetings? If yes, how many initial contact meetings did you attend what was your role in the initial contact meetings? If no, where could you get the information about the initial contact meetings?

1.3 Who do you think is the key decision maker in your company and why do you think so?

2. Preparation

2.1 What kinds of activities have you been involved during the preparation (e.g. interviews, panel meetings)?

2.2 What kinds of topics have been discussed and what kinds of information have you given to the consultants or managers during the preparation?

2.3 How can you communicate with the consultants during the preparation?

2.4 Have you been involved in the project plan-making process?

2.5 If no, how and when could you know the project plan? Do you think they should include you in the plan-making process and why? (No need to answer the following questions in this section)

2.6 If yes, what kinds of ideas have you provided to the consultants or managers?

2.7 Who actually decide the plan and why do you think so?

2.8 When working with consultants or managers in plan-making processes, do you face any problem? If so, how do you deal with it?

2.9 How do you think about your involvement in the plan-making process (e.g. helpful, useful) and why?

3. Implementation

3.1 How do you view your role when implementing the lean project and how do you view the consultants' role?

3.2 Who do you think is the key decision maker when implementing the lean project and why do you think so?

3.3 During the implementation, do you need to record any activities or data? If so, what kinds of activities have been recorded? And who are responsible for keeping records?

3.4 How could you communicate with consultants during the implementation?

3.5 Can you feel any change in your company when implementing lean (e.g. rules, policies, daily jobs, shop floor layout)? How do you think about these changes (e.g. good or bad) and why?

3.6 What kinds of training have you had in terms of learning lean based knowledge and have you been involved in developing any of the training materials?

3.7 Do you think it is easy for you to understand the content of the training? Why?

3.8 Do you have any difficulty during training? If so, what kinds of difficulties do you have? And how do you deal with them? Have they been improved?

3.9 Could you please also share some good experience about training with me?

3.10 In addition to training, does the consultancy or company provide other sources or activities for you to learn lean based knowledge? Can you give me some examples?

For consultants

1. Initial

1.1 Who organise the initial contact meetings? Who do you think are the must-have persons in the initial contact meetings and why?

1.2 What are the key tasks/activities/topics for the initial contact meetings?

1.3 How do you prepare for the initial contact meetings?

1.4 What is your role in the initial contact meetings and what do you do during the meetings?

1.5 Who do you think is your key client at this stage and why do you think so?

1.6 Do you face any difficulty during the initial contact meetings? If so, how can you deal with them?

1.7 Do you think you need to work differently with SMEs like Autoparts at this stage? What consulting practices should be amended at this stage and why?

2. Preparation

2.1 What are the key activities included in the preparation stage?

2.2 As it is said in the plan, an on-site investigation has been conducted at the preparation stage. May I know what is the on-site investigation scope and how can you define the on-site investigation scope?

2.3 Who have been involved in the on-site investigation and why? How do you think about their involvement (e.g. useful, helpful)?

2.4 Do you have any difficulty during your on-site investigation? If so, how can you deal with them? Have they been solved?

2.5 Who have been involved in the plan-making process and why they should be involved?

2.6 What is your role in the plan-making process and what do you think is other managers' roles in the plan-making process?

2.7 Whose idea do you think are dominant the plan-making process and why?

2.8 Who do you think is the key client at this preparation stage and why?

2.9 How can you communicate with managers and employees during the plan making process? Have you asked other managers and employees for ideas about the project plan?

2.10 It is noticed that the plan is quite structured with certain sections, why do you need to structure the plan like this? What do you think is the must-have information for the plan and why?

2.11 Do you think you need to work differently with SMEs like Autoparts at this stage? What consulting practices should be amended at this stage and why?

3. Implementation

3.1 Who are involved in the project steering team and how does the project steering team work (e.g. decision-making process)?

3.2 How do you view your role in the project steering team and how do you view the owner and other managers' roles?

3.3 Who do you think is the key client when implementing the lean project and why do you think so?

3.4 During the implementation, do you need to keep any record? If so, what kinds of activities are recorded and why?

3.5 How could you communicate with managers and employees during the implementation?

3.6 Why does the company include changing rules and policies as the important part of the implementation? Have you had any issue when changing them?

3.7 What kinds of training have you provided and who should attend the training courses?

3.8 How have the training materials been developed? What is your role in designing the training materials?

3.9 Do you have any difficulty when developing the training materials? If so, how can you deal with them?

3.10 Are there any other learning activities to help managers and employees learn lean practices? Have you involved in these activities?

3.11 During the implementation stage, do you think you need to work differently with SMEs like Autoparts at this stage? What consulting practices should be amended at this stage and why?

3.12 Do you think some of the existing practices in the company are not appropriate to lean practices? If so, what are these practices and why do you think so? And how can the company get rid of these practices?

4. Follow-on

4.1 Have the pre-developed plan been changed or adjusted? If so, which task has been changed and why?

4.2 Who can made the decision to change the plan?

4.3 Do you have any difficulties when changing the plan? If so, what kinds of difficulties do you have and how do you deal with them?

Appendix 6 Pilot Case Study (Autoparts Ltd) – the main observation guide for the shop floor

Observation sheet-for workplace

Sheet number:_____ **Date:**_____ **Company name:**_____

Start time:_____ **End time:**_____ **Department/areas:**_____

No. of people:_____ **Job type:**_____ **Process being observed:**_____

Description/snapshot of process:

Summary of interaction between people in the vicinity:_____

Highlighting points:_____

Shining points: evidence for learning? Lean tools? Standard work/6S/Kanban/visual management/ SMED/Poka-Yoke/TPM/VSM

Appendix 7 Pilot Case Study (Autoparts Ltd) – the main observation guide for the meetings

Observation sheet-for meetings

Sheet number:_____ **Date:**_____ **Company name:**_____

Start time:_____ **End time:**_____ **Departments involved:**_____

No. Of people:_____ **Their positions:**_____

Topic(s) of the meeting:_____

Summary of interaction between people (e.g. consultancy side vs. management’s side):_____

Results of the meeting:_____

Highlighting points:_____

Appendix 8 Main case studies – the interview guide

For the owner and managers:

1. Background

- 1.1 When did your company begin the lean journey?
- 1.2 Is it the first lean project for your company and could you please share some of the company's previous experience about lean implementation (if any)?
- 1.3 Before any training in this lean project, have you already known the idea of lean? If so, where does the information come from and how do you obtain it?
- 1.4 Why does the company hire consultants to conduct the lean project?
- 1.5 Why does the company hire consultants to conduct the lean project and what do you want the consultants to do during the project?
- 1.6 Who make the decision to select the consultancy and do you know the selection criteria?
- 1.7 Before starting the lean project, what kinds of resources did the company invest?
- 1.8 How many stages does the project have (such as pre-implementation stage etc.) and could you please briefly explain the tasks included in each stage?
- 1.9 What are your expectations or objectives about this lean project and have you used any specific criterion to measure expectations or objectives?

2. Initial

- 2.1 Have you attended the initial contact meeting?
- 2.2 If no, how and when do you know the company would like to hire the consultants to do the lean project? (No need to answer the following questions in this section)
- 2.3 If yes, how many initial contact meetings have you attended and who else have attended the initial contact meetings?
- 2.4 What kinds of preparations do you need to do before attending the meeting, for example, have you prepared and provided introductory documents to the consultants?
- 2.5 What are the key tasks/activities/topics for the initial meetings and what have the consultants done in the meetings?
- 2.6 How do you think about the consultants' performance at this stage (e.g. professional, experienced or not) and why do you think so?
- 2.7 What is your role in the initial contact meetings and what have you done during the meetings (e.g. introduced the company, explained the problems etc.)?
- 2.8 What kinds of information about your company have you prepared for the consultants?
- 2.9 Who do you think is the key decision maker and why do you think so?

3. Preparation

- 3.1 What kinds of activities have you been involved during the preparation (e.g. interviews, panel meetings)?
- 3.2 What kinds of topics have been discussed and what kinds of information have you given to the consultants during the preparation?
- 3.3 How can you communicate with the consultants during the preparation?
- 2.4 Have you been involved in the project plan-making process?
- 3.5 If no, how and when can you know the project plan? Do you think they should include you in the plan-making process and why? (No need to answer the following questions in this section)
- 3.6 If yes, whose ideas do you think has dominated the plan-making process (e.g. the consultants or managers) and what is your role in the plan making process?
- 3.7 Who actually decide the plan and why do you think so?
- 3.8 When working with consultants in plan-making processes, have you faced any problem or difficulty? If so, how do you deal with it?
- 3.9 How do you think about your involvement in the plan-making process (e.g. helpful, useful) and why?

4. Implementation

- 4.1 Who have been involved in the project steering team and how does the project steering team work (e.g. decision-making process)?
- 4.2 How do you view your role in the project steering team (for the person who has been involved in the project steering team)? How do you view other managers and the consultants' role?
- 4.3 Who do you think is the key decision maker when implementing the lean project and why do you think so?
- 4.4 During the implementation, have the involved departments kept any record? If so, what kinds of activities have been recorded? And who are responsible for keeping records?
- 4.5 How could you communicate with other employees and consultants during the implementation?
- 4.6 Why does the company include changing rules and policies as the important part of the implementation? Do you have any issue when changing them?
- 4.7 Can you give me some examples about the significant changes in your company when implementing lean (e.g. rules, policies, daily jobs, shop floor layout)? How do you think about these changes (e.g. good or bad) and why?
- 4.8 What kinds of training have you had in terms of learning lean based knowledge and what is your role in the training (e.g. student, designer)?
- 4.9 To what extent do you think the training you have had is relevant to your job?
- 4.10 Have you been involved in the design of the training materials? If yes, can you please give me some examples and how do you feel about being involved in this

process? If no, do you think you should be included in the design of the training and why?

4.11 Do you think it is easy for you to understand the content of the training? Why?

4.12 Do you have any difficulty during training? If so, what kinds of difficulties do you have? And how do you deal with them? Have they been improved?

4.13 Could you please also share some good experience about training with me?

4.14 In addition to training, does the consultancy or company provide other sources or activities for you to learn lean based knowledge? Can you give me some examples?

4.15 Do you think some of the existing practices in your company are not appropriate to lean practices? If so, what are these practices and why do you think so? And how can you get rid of these practices?

4.16 Have the pre-developed plan been changed or adjusted? If so, which task has been changed and why?

4.17 Who can made the decision to change the plan?

4.18 Do you have any difficulties when changing the plan? If so, what kinds of difficulties do you have and how do you deal with them?

5. Assessment

5.1 In general, how do you think about the consultants' service?

5.2 Does the outcomes of the lean project meet your expectations? If no, could you please state the differences? If yes, what kinds of measures have been used?

5.3 How can you measure consultants' performance (e.g. working hours, working places etc.)?

5.4 What is your role in assessment stage?

5.5 Whose ideas do you think dominate the assessment and why do you think so?

6. Follow-on

6.1 What are your expected outcomes from lean implementation programme? To what extent do you think the programme has achieved them?

6.2 What is the future plan for the company in terms of using consultants?

6.3 From your perspective, what advice will you give to those companies that wish to use consultants to implement lean?

For employees

1. Background

1.1 How many years have you worked in the company?

1.2 Could you please briefly describe your job activities?

1.3 Have you heard "lean" before? If so, where did you get the information?

1.4 Do you have any idea about “lean” now? If so, could you please describe it?

2. Initial

2.1 How and when do you know the company would like to hire the consultants to do the lean project?

2.2 Do you have any chance to attend the initial contact meetings? If yes, how many initial contact meetings did you attend what was your role in the initial contact meetings? If no, where could you get the information about the initial contact meetings?

2.3 Who do you think is the key decision maker in your company and why do you think so?

3. Preparation

3.1 What kinds of activities have you been involved during the preparation (e.g. interviews, panel meetings)?

3.2 What kinds of topics have been discussed and what kinds of information have you given to the consultants or managers during the preparation?

3.3 How can you communicate with the consultants during the preparation?

3.4 Have you been involved in the project plan-making process?

3.5 If no, how and when could you know the project plan? Do you think they should include you in the plan-making process and why? (No need to answer the following questions in this section)

3.6 If yes, what kinds of ideas have you provided to the consultants or managers?

3.7 Who actually decide the plan and why do you think so?

3.8 When working with consultants or managers in plan-making processes, do you face any problem? If so, how do you deal with it?

3.9 How do you think about your involvement in the plan-making process (e.g. helpful, useful) and why?

4. Implementation

4.1 How do you view your role when implementing the lean project and how do you view the consultants' role?

4.2 Who do you think is the key decision maker when implementing the lean project and why do you think so?

4.3 During the implementation, do you need to record any activities or data? If so, what kinds of activities have been recorded? And who are responsible for keeping records?

4.4 How could you communicate with managers or consultants during the implementation of lean project (e.g. providing feedback about the training course)?

4.5 Can you provide me some examples about big changes in your company when implementing lean (e.g. rules, policies, daily jobs, shop floor layout)? How do you think about these changes (e.g. good or bad) and why?

4.6 What kinds of training have you had in terms of learning lean based knowledge and have you been involved in developing any of the training materials?

4.7 Do you think it is easy for you to understand the content of the training? Why?

4.8 Do you have any difficulty during training? If so, what kinds of difficulties do you have? And how do you deal with them? Have they been improved?

4.9 Could you please also share some good experience about training with me?

4.10 In addition to training, does the consultancy or company provide other sources or activities for you to learn lean based knowledge? Can you give me some examples? How do you think about these activities?

5. Assessment

5.1 In general, do you think your job performance has been improved by the programme? If so, which aspects?

5.2 Do you feel any pressure from the programme or do you have any concern about the programme? If so, could you please tell me more about it?

5.3 From your own perspective, are you willing to be involved in future attempts to implement lean?

For consultants

1. Background

1.1 When do you start to do lean projects?

1.2 How many lean projects have you done/is doing/plan to do?

1.3 Would you mind to share your past experience of doing lean projects (e.g. types of client organisations, roles of consultants, good experience and bad experience)?

1.4 Where do you learn lean based knowledge?

1.5 Before conducting the lean project, what kinds of preparations do you usually do?

1.6 Could you please briefly describe your plan for the lean project in this company?

1.7 How many stages does the project have (such as pre-implementation stage etc.) and could you please briefly explain the tasks included in each stage?

1.8 Would you mind to share your training plan for this lean project (e.g. core training themes, attendees, timetable)?

1.9 What are your expectations about this lean project?

2. Initial

2.1 Who organise the initial contact meetings? Who do you think are the must-have persons in the initial contact meetings and why?

- 2.2 What are the key tasks/activities/topics for the initial contact meetings?
- 2.3 How do you prepare for the initial contact meetings?
- 2.4 What is your role in the initial contact meetings and what do you do during the meetings?
- 2.5 Who do you think is your key client at this stage and why do you think so?
- 2.6 Do you face any difficulty during the initial contact meetings? If so, how can you deal with them?
- 2.7 Do you think you need to work differently with SMEs like [insert the client organisation's name] at this stage? What consulting practices should be amended at this stage and why?

3. Preparation

- 3.1 What are the key activities included in the preparation stage and how long does the preparation stage take?
- 3.2 As it is said in the plan, an on-site investigation has been conducted at the preparation stage. May I know what is the on-site investigation scope and how can you define the on-site investigation scope?
- 3.3 Who have been involved in the on-site investigation and why? How do you think about their involvement (e.g. useful, helpful)?
- 3.4 Do you have any difficulty during your on-site investigation? If so, how can you deal with them? Have they been solved?
- 3.5 Who have been involved in the plan-making process and why they should be involved?
- 3.6 What is your role in the plan-making process and what do you think is other managers' roles in the plan-making process?
- 3.7 Whose idea do you think are dominant the plan-making process and why?
- 3.8 Who do you think is the key client at this preparation stage and why do you think so?
- 3.9 How can you communicate with managers and employees during the plan making process? Have you asked other managers and employees for ideas about the project plan?
- 3.10 It is noticed that the plan is quite structured with certain sections, why do you need to structure the plan like this? What do you think is the must-have information for the plan?
- 3.11 Do you think you need to work differently with SMEs like Autoparts at this stage? What consulting practices should be amended at this stage and why?

4. Implementation

- 4.1 Who have been involved in the project steering team and how does the project steering team work (e.g. decision-making process)?
- 4.2 How do you view your role in the project steering team and how do you view the owner and other managers' roles?
- 4.3 Who do you think is the key client when implementing the lean project and why do you think so?
- 4.4 During the implementation, do you need to keep any record? If so, what kinds of activities have been recorded and why?
- 4.5 How could you communicate with managers and employees during the implementation (e.g. collecting their feedback about the training or new policies)?
- 4.6 Why does the company include changing rules and policies as the important part of the implementation? Have you had any issue when changing them?
- 4.7 What kinds of training have you provided and who should attend the training courses?
- 4.8 How have the training materials been developed? What is your role in designing the training materials?
- 4.9 Do you have any difficulty when developing the training materials? If so, how can you deal with them?
- 4.10 How do you make sure that the training courses you provided are accepted and understood by the trainees?
- 4.11 Are there any other learning activities to help managers and employees learn lean practices? How have you been involved in these activities?
- 4.12 During the implementation stage, do you think you need to work differently with SMEs like [insert the client organisation's name] at this stage? What consulting practices should be amended at this stage and why?
- 4.13 Do you think some of the existing practices in the company are not appropriate to lean practices? If so, what are these practices and why do you think so? And how can the company get rid of these practices?
- 4.14 Have the pre-developed plan been changed or adjusted? If so, which task has been changed and why?
- 4.15 Who can made the decision to change the plan?
- 4.16 Do you have any difficulties when changing the plan? If so, what kinds of difficulties do you have and how do you deal with them?

5. Assessment

- 5.1 In general, do you think lean project is effectively implemented in the firm? If so or not, why?

5.2 What are your expected outcomes from this lean project? To what extent do you think you have achieved them?

5.3 If not completely achieved, could you please point out where the difference exists? What do you think could be the reasons for that?

5.4 During the assessment stage, whose ideas dominate the assessment process and who do you think is the key client and why do you think so?

5.5 What kinds of information do you need to provide to the owner or managers to show the outcomes of the project?

5.6 During the assessment stage, do you think you need to work differently with SMEs like [insert the client organisation's name] at this stage? What consulting practices should be amended at this stage and why?

6. Follow-on

6.1 Do you have any plan to help [insert the client organisation's name] sustain the benefits it has already had? If so, could you please tell me more about the plan? If not, do you have any suggestion for the firm to sustain the benefits?

6.2 From your own perspective, which area do you think could be the next step for [insert the client organisation's name] to improve? Why do you think so?

6.3 Will you continue to do the lean projects in the future? If not, why? If so, which areas could that be?

Appendix 9 Main case studies – the observation guide

Observation sheet-for meetings

Sheet number:_____ **Date:**_____ **Company name:**_____

Start time:_____ **End time:**_____ **Departments involved:**_____

No. Of people:_____ **Their positions:**_____

Topic(s) of the meeting:_____

Summary of interaction between people (e.g. consultant's side vs. manager's side):

Results of the meeting:

Observation sheet-for training courses

Sheet number:_____ Date:_____ Company name:_____

Start time:_____ End time:_____ Trainer(s):_____

No. of attendants:_____ Their positions:_____

Topic(s) of the training:_____

The delivery of training courses (e.g. structure of training course; training approach; the use of training materials and case examples):

The interactions between people: (behaviors of trainer(s) vs. the behaviors of attendants):

Observation sheet-for shop floor

Sheet number:_____ **Date:**_____ **Company name:**_____

Start time:_____ **End time:**_____ **Department/areas:**_____

No. of people:_____ **Job type:**_____ **Process being observed:**_____

Description/snapshot of process:

Summary of interaction between people in the vicinity:

Highlighting points (e.g. use of lean practices like Standard work/6S/Kanban/visual management/ SMED/Poka-Yoke/TPM/VSM):

Appendix 10 Main case studies – the documentation guide

A guide for documentation

Project related documents	PPT slides used in the initial stage, Project plan, training plan Training materials, progress report, new rules/policies/procedures, posters/bulletins/brochures, records of meetings.
Client organisations related documents	Current rules/organisational structure/production lines of the company, The layout of the plant, Annual reports, Production reports.

Appendix 11 Ethical approval-1

**ETHICS 2
FULL ETHICAL APPROVAL FORM
(STAFF/PHD STUDENTS) or students referring
their form for a full ethical review**



(For guidance on how to complete this form, please see Learning Central – CARBS RESEARCH ETHICS)

If your research will involve patients or patient data in the NHS then you should secure approval from the NHS National Research Ethics Service. Online applications are available on <http://www.nres.npsa.nhs.uk/applicants/>

NB: Safety Guidelines for researchers working alone on projects – please go to this University's web link to learn about safety policies - <http://www.cf.ac.uk/osheu/index.html>

Name of Lead Researcher : Qing HU

School: Cardiff Business School

Email: HuQ1@cardiff.ac.uk

Names of other Researchers:

Email addresses of other Researchers :

Title of Project:

Investigating the effectiveness of consultancy-led lean implementation within SMEs: cases from Chinese SMEs

Start and Estimated End Date of Project: Dec 2011- Sept 2014

Aims and Objectives of the Research Project:

The main aims of the research are:

- 1) to gain insights into a consultant-led lean implementation programme within Chinese SMEs in terms of how the consultancy drives small and medium-sized enterprises (SMEs) to implement lean thinking;
- 2) to assess the effectiveness of consultancy-led lean implementation in Chinese SMEs.

The main research questions are:

- 1) What contingent factors should be considered when investigating lean implementation issues within (Chinese) SMEs?
- 2) What are the main drivers for SMEs to implement lean thinking?
- 3) How do consultants drive SMEs to implement a lean programme?
- 4) What are the critical elements for SMEs to effectively follow a consultant-led lean implementation programme?
- 5) What SME resources could be exploited and developed through consultant-led lean implementation?
- 6) What are the suitable dimensions and indicators to assess the effectiveness of consultant-led lean implementation programme?

Please indicate any sources of funding for this project:

APPLICATION APPROVED
RESEARCH ETHICS COMMITTEE
CARDIFF BUSINESS SCHOOL
CARDIFF UNIVERSITY

1. Describe the methodology to be applied in the project

Case study research, which is described by Yin (2009) as a useful way to look into what is happening in the organization, is employed by data collection methods of semi-structured interview and direct observation (non-participant). Semi-structured interview is a widely used approach to gain data in case studies. According to Walliman (2006), it is a practical and useful way to obtain rich information from interviewees. The collected data will be coded according to the chronological order of response. As the research does not record interviewees' real names, they are not identifiable by this code. The target semi-structured interviewees are consultants, general managers, heads of departments and workers who are involved in the lean programme. To be consistent with the research questions (see appendix 1), the interview guides (see appendix 2) are designed firstly to gain some background information of lean programme such as when and why the firm decides to start their lean journey. In addition, the interview is also designed to gather some specific information of lean implementation within SMEs such as the learning and training issues, preparations and implementation of a consultancy led lean programme, the assessment of the effectiveness of the programme and finally the future development of the SMEs. Direct observation is also applied in the research. According to Yin (2009), direct observation could record the natural settings of each case and thereby, reveal the nature and reality as well as real-time issues of the case. However, Saunders, Lewis and Thornhill (2007) point out the researcher may face the risk of losing focus when doing direct observation. To avoid this, it is suggested that a guide or

ETHICS 2

Appendix 11 Ethical approval-2

sheet for observation (see appendix 3) should be developed (Saunders, Lewis and Thornhill, 2007). To analyze the qualitative data Miles and Huberman's (1994) framework will be used. It is also the intention of the researcher to use a software package such as NVivo or ATLAS.ti.

Reference:

Miles, M.B. and Huberman, A. M. 1994. *Qualitative data analysis: an expanded sourcebook*, 2nd ed. Thousand Oaks, CA : Sage Publications.

Saunders, M.; Lewis, P. and Thornhill, A. 2007. *Research methods for business students*, 4th ed. Essex: Pearson Education.

Walliman, N. 2006. *Social research methods*. London: Sage Publications.

Yin, R. 2009. *Case study: design and methods*, 4th ed. London: Sage Publications.

PLEASE ATTACH COPIES OF QUESTIONNAIRES OR INTERVIEW TOPIC GUIDES TO THIS APPLICATION

2. Describe the participant sample who will be contacted for this Research Project. You need to consider the number of participants, their age, gender, recruitment methods and exclusion/inclusion criteria

It is the belief of the researcher that to answer the research questions mentioned earlier, data should be obtained from multiple sources. Thus, the target participants should be 1) the consultants who lead the planning and implementation processes of the programme; 2) the general manager who can give general operational information about the programme and the strategic as well as tactical information about the firm; 3) head of each department who is involved in the programme and can provide specific information of lean implementation within each department; 4) workers who can give the information of lean implementation in a specific work situation. In this research, about ten consultants from the consultant team which lead the lean programme; four to eight general managers from four to eight Chinese manufacturing SMEs which are currently undertaking consultant-led lean implementation programme and located in the area of southeast China will be interviewed. In addition, for each SME, about eight leaders of departments and twenty workers from different jobs will be interviewed as well. Most of the consultants and managers are male and aged from 35-50 and fewer of them are female and aged from 35-40. For workers, most of them are male and aged from 25-35 and fewer of them are female and aged from 25-30.

A single senior administrative assistant in each firm will be selected as the contact to whom the appointment of interview will be made and relevant emails can be sent. Other information that will be supplied to the firms prior to the interview includes the main purposes of the research, why the firms have been invited to participate, how long the interview will last, and the way to carry out the interviews.

3. Describe the method by which you intend to gain consent from participants.

As part of the interview process a brief introduction of the research purposes and basic research plan will be made. The whole interview requires approximately 2 hours. Participation in this study is entirely voluntary and each interviewee can withdraw from the research at any time without giving a reason. Confidentiality and anonymity of the interview data will be safeguarded at all times and stored securely. Consent will be sought from interviewees prior to starting the interviews. Permission will also be sought to record the interviews. Similarly, permission will also be sought from relevant parties to carry out any observation. The feedback of the research will be available to the interviewees at the end of the entire research work.

PLEASE ATTACH A COPY OF ALL INFORMATION WHICH WILL BE GIVEN TO PROSPECTIVE PARTICIPANTS (including invitation letter, briefing documents and, if appropriate, the consent form you will be using).

4. Please make a clear and concise statement of the ethical considerations raised by the project and how you intend to deal with them throughout the duration of the project (please use additional sheets where necessary)

Interviewees will need to provide their contact details (at least their email addresses) to receive the feedback from the researcher. As a result, how to satisfy their needs of consent and confidentiality can be the main ethical issue in this research. To deal with this issue, the researcher will first follow and obey the Association Business Schools (ABS) ethics guide during the entire research. The researcher will also explain to the interviewees that the information will be used for academic study only and inform them that their personal information will be treated anonymously and kept confidentially. In addition, the researcher's contact details will be provided during the research, and hence, interviewees can contact the researcher for further information.

STUDENTS SHOULD BIND THE SIGNED AND APPROVED FORM INTO THEIR REPORT,

ETHICS 2

Appendix 11 Ethical approval-3

DISSERTATION OR THESIS.

Please complete the following in relation to your research project:

		Yes	No	n/a
(a)	Will you describe the main details of the research process to participants in advance, so that they are informed about what to expect?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b)	Will you tell participants that their participation is voluntary?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c)	Will you obtain written consent for participation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d)	Will you tell participants that they may withdraw from the research at any time and for any reason?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e)	If you are using a questionnaire, will you give participants the option of omitting questions they do not want to answer?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f)	Will you tell participants that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(g)	Will you offer to send participants findings from the research (e.g. copies of publications arising from the research)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(h)	If working with children and young people please confirm that you have visited this website : Working with children and young people and Vulnerable Adults please go to weblink - http://www.cf.ac.uk/govrn/cocom/resources/2010%November%20Safeguarding%20Children%20&20VA's.doc	<input type="checkbox"/>		<input checked="" type="checkbox"/>

PLEASE NOTE:

If you have ticked No to any of 5(a) to 5(g), please give an explanation on a separate sheet.

(Note: N/A = not applicable)

There is an obligation on the principal researcher/student to bring to the attention of Cardiff Business School Ethics Committee any issues with ethical implications not clearly covered by the above checklist.

Signed:

(Principal Researcher/Student)

胡青

Print Name:

QZNG HU

Date:

02/11/2011

SUPERVISOR'S DECLARATION (Student researchers only): As the supervisor for this student project I confirm that I believe that all research ethical issues have been dealt with in accordance with University policy and the research ethics guidelines of the relevant professional organisation.

Signed:

S. S. Williams

Print Name:

Dr Sharon Williams

Date:

02/11/2011

TWO copies of this form (and attachments) MUST BE OFFICIALLY STAMPED by Ms Lainey Clayton, Room F43, Cardiff Business School

STATEMENT OF ETHICAL APPROVAL

This project has been considered using agreed School procedures and is now approved.

Official stamp of approval of the School Research Ethics Committee.

Date:

28/11/2011

T. Evans
Chair

ETHICS 2

Appendix 12 Consent form

CARDIFF BUSINESS SCHOOL

RESEARCH ETHICS

Consent Form - Confidential data

I understand that my participation in this project will involve participating in an interview about my perspectives and experience towards lean operations which requires approximately 2 hours.

I understand that participation in this study is entirely voluntary and that I can withdraw from the study at any time without giving a reason.

I understand that I am free to ask any questions at any time. If for any reason I have second thoughts about my participation in this project, I am free to withdraw or discuss my concerns with Dr Sharon Williams (WilliamsS78@cardiff.ac.uk).

I understand that the information provided by me will be held confidentially and securely, such that only the researcher can trace this information back to me individually. The information will be retained for up to 1 year and will then be destroyed. I understand that if I withdraw my consent I can ask for the information I have provided to be destroyed in accordance with the Data Protection Act.

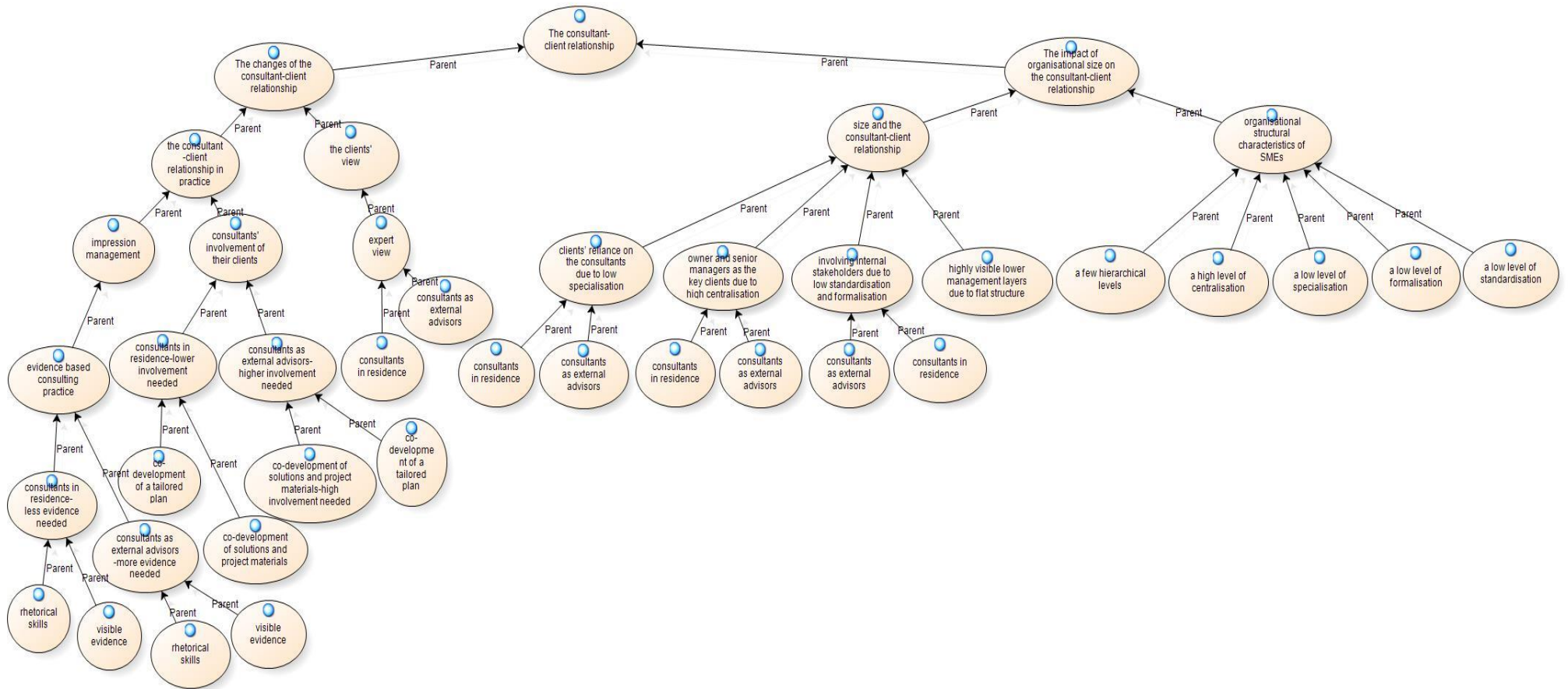
I also understand that at the end of the study I will be provided with additional information and feedback about the purpose of the study.

I, _____(NAME) consent to participate in the study conducted by QING HU(HuQ1@cardiff.ac.uk), PhD student of Cardiff Business School, Cardiff University, under the supervision of Dr Sharon Williams, Dr Robert Mason and Dr Pauline Found.

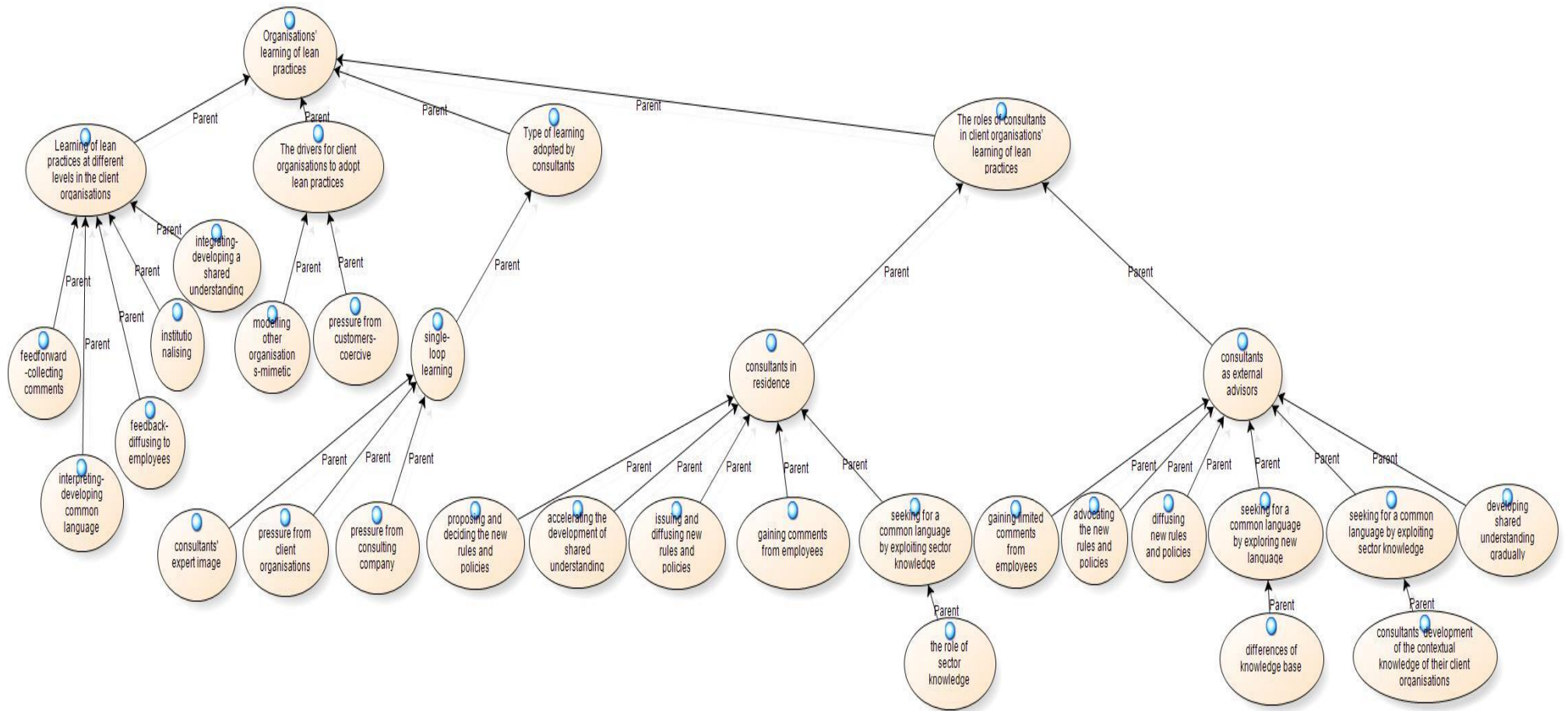
Signed:

Date:

Appendix 13 Codes for data analysis-1



Appendix 13 Codes for data analysis-2



Appendix 13 Codes for data analysis-3

