INSTITUTIONAL BARRIERS TO THE TRANSNATIONAL TRANSFER
OF SAFETY AND HEALTH PRACTICES

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Abstract

The study examines the barriers that impede the successful transfer of the parent’s occupational safety and health (OSH) practices at the Malaysian subsidiaries of a U.K. MNC. The study examines the process of transfer, translation and corruption of management practices as they move across the national boundaries.

The study applies a case study approach and is exploratory in nature. The study applies quantitative and qualitative methods to analyze the data. Overall a total of 291 employees participated in the study. Out of the total, 159 participated in the survey questionnaires and 132 in the qualitative interviews. The findings indicate two key factors had influenced the transfer and adoption of practices at the subsidiaries: the stage of economic development and the normative, cultural-cognitive systems of the host country, specifically ethnic stratification.

The contribution of the study is in applying institutional theory to produce understanding of processes in the cross national transfer of management practices. The study provides researchers better understanding in applying institutional theory in the transfer and adoption of management practices in MNCs. For the HR practitioners the study provides better understanding in managing rewards systems and training of management practices.
# Table of Contents

Abstract

CHAPTER 1: OVERVIEW .............................................................................. 1

CHAPTER 2: LITERATURE REVIEW ............................................................. 18

  Overview of the Context of Study .......................................................... 19
  Multinational Corporations (MNCs) ....................................................... 23
  Transfer of Organizational Practices .................................................... 34
  Factors affecting transfer/adoption across national contexts ................. 35

THEORETICAL FRAMEWORK .................................................................... 43

  Barriers to Adoption of Practices .......................................................... 52

CHAPTER 3: RESEARCH DESIGN (PART 1) .................................................. 65

  Research Strategy ................................................................................. 68
  Mixed Method Approach ...................................................................... 69
  Data Collection Process ....................................................................... 74
  Population/Samplings ......................................................................... 79
  Development of Measurement Instrument ............................................ 89

CHAPTER 3: RESEARCH DESIGN (PART 2) .................................................. 116

  Method of Analyzing the Qualitative Data ............................................ 117
  Data Analysis Tool ............................................................................... 122
CHAPTER 4: QUANTITATIVE ANALYSIS (PART 1) ............................. 133
  Tests for Implementation .................................................. 134
  Tests for Commitment .................................................... 144

CHAPTER 4: QUALITATIVE ANALYSIS (PART 2) ............................. 155
  Framework of Analysis ................................................... 157
  Perceptions and Behaviors - Managers ................................ 180
  Perceptions and Behaviors - Workers .................................. 202
  Key Difference Managers'/Workers' Behaviors ..................... 212
  Economic Factor ............................................................ 217
  Summary of Key Themes .................................................. 223

CHAPTER 5: FINDINGS AND IMPLICATION TO THEORY .................. 226
  Key Findings ............................................................... 227
  Barriers in Transfer of Practices ....................................... 230
  Impacts on Practice Adoption .......................................... 233
  Implications to Theory ................................................... 238
  Implications for our understanding of Greenfield/Brownfield .... 240

CHAPTER 6 – CONCLUSION ..................................................... 244
  Support for Existing Theory ............................................. 244
  Contributions ............................................................... 248
  Implications for Government Policies ................................. 254
  Implications for Human Resource Management .................... 255
  Limitations of Study ..................................................... 261
Implications for Future Research ............................................. 262
References ....................................................................... 266
Appendix 4.1 – ICI SSHE Policy ............................................. 286
Appendix 4.2 – ICI SSHE Standards ............................................. 287
Appendix 4.3 – ICI Group Vision ............................................. 290
Appendix 4.4 – OSH ACT 1994 ............................................. 291
Appendix 4.5 – CODE OF PRACTICE OSH 1994 ...................... 292
Table 4.6 - Accident Trends Malaysia (2000-2004) .............. 293
Table 4.7 - Accidents by Industry (2004) ................................. 294
Survey Questionnaires (App. 3.1)
Sample of Work Safety Scale (App.3.6)
Factor Pattern Matrix (App. 3.7)
Letters to ICI (App.3.8)
Dedications

This thesis is dedicated to my family, particularly my husband Yusop and children Fatimah, Faizal and Fathil who have provided me with the moral support and strength throughout the duration of my study.

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CHAPTER 1 - OVERVIEW

Introduction

This chapter gives an overview of the thesis. It provides a general background on the research area, the research questions, aims and objectives, criteria for selection, the company (MNC) in which this research is based, research strategies and their contributions to knowledge.

Research Area

The study examines the barriers in the transnational transfer of the occupational safety and health practices (OSH) across national boundaries. Specifically, the study examines the conflicting role of host country institution in the transfer and adoption of parent company’s practices at the subsidiaries to identify the factors that prevent the successful transfer of practices at the subsidiaries.

Theoretical Framework

The study applies institutional theories to examine the barriers in the cross national transfer and adoption of parent company’s practices at the foreign subsidiaries. Specifically, the institutional pillars and carriers’ framework is applied to analyze effects of the regulatory, normative and cultural-cognitive systems of the host country institution.
in the transfer and adoption of practices at the foreign subsidiaries. The study builds on the study of Kostova & Roth's (2002) in which they identified that pressures from the regulative, normative and cultural cognitive systems of the local institutional environment (Scott, 1995) have invoked behaviors that conflict with the efficiency of the practices. They concluded that while subsidiaries would adopt and implement the practices in the face of coercive pressure from the parent, internalization of the meaning of these practices by employees relied on congruence with the local cognitive-cultural mindset. They argued that coercive pressures from the parent and sanctions by certain legitimating actors are not always successful due to complexity of the normative, cultural-cognitive pillars of the host country environment. Kostova and colleagues (Kostova & Zaheer, 1999; Kostova & Roth, 2002) recognize that, in addition to pressures to conform to the external environment, foreign MNC subsidiaries are subject to internal pressures. The simultaneous pressures for foreign subsidiaries to conform to two different sets of isomorphic pressures described as 'institutional duality' (Kostova & Zaheer, 1999; Kostova & Roth, 2002), recognize that both external and internal legitimacy are likely to influence a foreign subsidiary's practices. Thus firms face conflicting forces towards global integration on one hand and local adaptation on the other.

**Research Questions**

Kostova & Roth made an important contribution to our understanding of the cross-national transfer of management practices across national boundaries. However, their study was based on cross-sectional survey data, and broad institutional contexts, which
left us with only a partial understanding of the processes through which implementation and internalization are achieved (or prevented).

The broad research question which this thesis addresses concerns the nature of processes by which management practices and values are transferred, translated or corrupted as they move across national boundaries within multinational firms. Specifically, the study addresses the following questions:

(a) What are the key factors that impede the process of transfer and adoption at the subsidiaries?
(b) How does the local institutional context influence the process of transfer and adoption?

Research Topic

Institutional barriers to the transnational transfer of safety and health practices

Aims and Objectives

The objective of the study is to investigate the barriers in the cross-national transfer of practices from the parent company to its foreign subsidiaries within the context of dual institutional pressures. Specifically, the study examines the competing pressures exerted
by the parent company vs. pressures exerted by the host country institutional context to
determine their influence on practice behaviors. The primary objective of the study is to
examine the complexities involved in the process of transferring management practices to
the subsidiaries in Malaysia. The study examines pressures exerted by the headquarters
(UK parent) in their attempt to transfer the practices and the opposing pressures exerted
by the local institutional context to determine their impacts on adoption at the Malaysian
subsidiaries.

Criteria for Selection

The Company, Imperial Chemical Industries U.K. (ICI UK) is chosen as a case study
because it is representative of an MNC company. The company is a centralized and
headquarters-dominated organization operating in 50 countries worldwide. The company
views the occupational safety and health (OSH) practices as an important business
strategy. Headquarters imposed the practices to all its companies and business units
worldwide, applying regular audits to monitor closely the adoption of practices across the
countries, thus it is a perfect case study to examine the complexities involved in the cross
national transfer of management practices to subsidiaries. Although the study is based
only on one company, however this company comprised of four separate organizations
each with different types of historical background, business, products, and OSH
experiences. Thus in the practical sense the study looks at four separate organizations.
By examining only one company, it allows the researcher to examine in-depth the
processes involved in the transfer and adoption of practices. It enables the research to
study closely the different approaches adopted by the individual subsidiary and identifying key issues confronting the subsidiary. It would be difficult to examine several MNC companies for this study due to lack of time, manpower and financial resources. Another reason for choosing the ICI organization is due to the researcher's relationship with the company. The researcher is an ex-employee of the company thus a relationship had already been established with them, which is important to the study particularly in facilitating the data gathering process. Besides, access to important documents and freedom of movements in the plants would make the data gathering process easier.

Besides the above, there are other important reasons why the researcher chose the company for the study:

**Differences in institutional contexts:** The parent company is from the U.K. (western) institutional context, while the subsidiaries are from Malaysia (South East Asian) institutional context. Difference in the regulatory, normative and cultural-cognitive systems between the parent company and the host country is important in examining the cross national transfer of practices at the subsidiaries. Besides, the institutional distance between the United Kingdom and Malaysia provide the variability that is necessary for examining the country-based institutional effects.

**National cultural differences:** Based on the findings by Hofstede (1991), countries that are culturally distant (e.g. U.K. and Malaysia) have more dissimilar cultural values and norms than those that are culturally close (e.g., U.K. and U.S). The national cultural distances between the parent and the subsidiaries provide complexity to the cross-
national transfer and adoption of practices. Specifically, the differences between multiethnic cultural values provide for added complexity due to greater misinterpretations on the meaning of the practices. In the context of the Malaysian subsidiaries, the multiple interpretations on the meaning of the practices of the (mainly Chinese) managers and (mainly Malay) workers had led to the corruption of practices.

**Greenfield and Brownfield Invested Companies:** The Malaysian subsidiaries comprised of both Greenfield and Brownfield companies. The subsidiaries have different history and business backgrounds thus they provide for interesting sub-cases to examine identification with the parent company. For example, the old subsidiary (ICI Paints) is a classic case of a 'Greenfield' invested company. The other subsidiaries (Uniqema, Esterol) are Brownfield invested companies; the other subsidiary (National Starch) is neither Greenfield nor Brownfield invested company. These subsidiaries provide for an interesting case study to identify local embeddedness with the local institutional environment.

**Reasons for choosing Occupational Safety and Health (OSH) Practices**

The practices that are used in this study concern the Occupational safety and health (OSH) practices. The practices are chosen because they are considered to be of strategic importance by the headquarters. They are part of the company's sustainable policy that is
important to all the ICI companies and their subsidiaries worldwide. They are important in protecting major risks that may affect the company’s worldwide business operations, its people and the external environment within which they operate. The practices are focal initiatives, which are transferred globally with general uniformity across different country locations. Besides, the OSH practices are sanctioned by the Malaysian government through legislation under the OSHA, 1994 Act to safeguard the employers and their employees in the manufacturing industries against risks relating to safety and health. Thus the OSH practices are important to the company because of the need to achieve external legitimacy at home and in the host country.

**Structure of Research**

The research applies a ‘Case Study’ approach to investigate the processes by which the OSH practices are transferred, translated and corrupted as they moved across national boundaries. There are several reasons for using a case study: First, the case study is a research strategy that comprises an all-encompassing method – covering the logic of design, data collection techniques, and specific approaches to data analysis. It relies on multiple sources of evidences, with data needing to converge in a triangulating fashion (Campbell, 2003). Thus, the case study is not just a data collection tactic or merely a design feature but a comprehensive research strategy (Stoecker, 1991). Second, the case study is an ‘empirical enquiry that investigates a contemporary phenomenon within its real life context, especially when the boundaries between phenomenon and context are
not clearly evident' and 'it relies on multiple sources of evidence' (Yin, 1994 p.13). Hence, it is an effective way to examine contemporary phenomena in-depth (Benbasat et al., 1987; Yin, 1994), especially when 'research and theory are at their early formative stages' (Benbasat et al., 1987 p.369). In this context, the concept of 'institutional duality' is still at its development stage, hence the application of a case study approach helps to explore areas where existing knowledge is limited (Cavaye, 1996). This allows the researcher to investigate the phenomena in-depth, and to provide rich descriptions and understanding (Walsham, 1995) of the phenomenon. Besides, applying the case study approach allows examination of the causal processes within the context of the 'real' world, and captures the characters of key players in its exact situation.

The study applies a 'mixed' approach using both qualitative and quantitative analysis to investigate the processes in which the practices are being transferred and adopted at the subsidiaries. The viability and necessity of such linkages have been advocated by various social scientists (e.g. Vidich & Shapiro, 1955; Reis, 1968; McCall & Simmons, 1969; Spindler, 1970; Diesing, 1971; Sieber, 1973). It was argued that in social sciences, the use of more than one method should be used in the validation process to ensure that the variance reflected that of the trait and not of the method (Campbell & Fiske, 1959). The convergence or agreement between two methods "...enhances our belief that the results are valid and not a methodological artefact" (Bouchard, 1976: 268). In this context, the qualitative and quantitative data add to the rich picture that is being built in the case, while comparing the subsidiaries systematically. In the study, data were collected both through survey questionnaires and qualitative interviews as well as examination of
company documents and websites. The various techniques and instruments reflect a range of perceptions that are qualitatively described and quantitatively represented to generate a rich and comprehensive picture. In one respect, qualitative data are used as the critical counterpoint to quantitative methods. In another respect, the analysis benefits from the perceptions drawn from personal experiences and firsthand observations. The mixed method research is also described as convergent validation or, what has been called “triangulation (Webb et al, 1966). Triangulation is broadly defined by Denzin (1978: 291) as “the combination of methodologies in the study of the same phenomenon.” The use of triangulation in this study also captures a more complete, holistic, and contextual portrayal of the unit(s) under study. That is, beyond the analysis of overlapping variance, the use of multiple measures may also uncover some unique variance which otherwise may have been neglected by single methods. Qualitative methods, in particular, can play an especially prominent role by eliciting data and suggesting conclusions to which other methods would be blind. Elements of the context are illuminated. Triangulation is used not only to examine the same phenomenon from multiple perspectives, but also to enrich our understanding by allowing for new or deeper dimensions to emerge. The effectiveness of triangulation rests on the premise that the weaknesses in each single method will be compensated by the counter-balancing strengths of another (Todd D. Jick, 1979).
Theoretical Framework

Broad institutional theories are applied as a basis for analysis. Institutional theory is widely used when studying the adoption of particular organizational practices or strategies (e.g., Meyer & Rowan, 1977; DiMaggio & Powell, 1983; Scott, 1995). Fundamental to institutional theory is the cross-border condition, which results in possibly conflicting sets of external environments for MNCs. Thus, the MNCs and their subunits face multiple, fragmented, nested, or often conflicting institutional environments. A central tenet of institutional theory is that organizations need to achieve and maintain external legitimacy. In addition to pressures to conform to the external environment, foreign MNC subsidiaries are subject to internal pressures to conform. The simultaneous pressures for foreign subsidiaries to conform to two different sets of isomorphic pressures are described as 'institutional duality' (Kostova & Zaheer, 1999; Kostova & Roth, 2002). Thus firms face conflicting forces towards global integration and local adaptation (Rosenzweig & Singh 1991; Goodergam, Nordaug & Ringdal 1998; Evans et al. 2002; Kostova & Roth 2002). The concept of 'isomorphism' (DiMaggio, 1983) is applied to examine the direct forces of local institutional pressures and the degree of local embeddedness.
Framework of Analysis

The study applies the concepts of 'Institutional Pillar' (Scott, 1995) and 'Institutional pillars and carriers' model (Scott, 2000) as a framework of analysis. The institutional pillars and carriers' framework help to unpack the nature of the institution and identify the impacts of dual institutional pressures at the subsidiaries. It allows the researcher to view the interplay between the regulative, normative and cultural-cognitive systems of the local institution and examine their impacts on practice behaviors.

Institutional Pillars (Scott, 1995)

According to Scott (1995), institutions comprised of three pillars – regulative, normative and cultural-cognitive (Table 1.1). The regulatory pillar is distinguished by the prominence given to explicit regulatory processes such as rule setting, monitoring and sanctioning activities. The regulatory process involves the capacity to establish rules, inspect others' conformity to them, and as necessary, manipulate sanctions through rewards or punishments in an attempt to influence future behavior. Force, fear, and expediency are central ingredients of the regulatory pillar; however they are often tempered by the existence of rules, whether in the guise of informal mores or formal rules and laws. In this context the regulative process represents the occupational safety and health legislation of the host country, OSH policies and regulations from the parent company. The normative pillar involves the normative rules that introduce a prescriptive, evaluative and obligatory dimension into social life. Normative systems include both
values and norms. Values are conceptions of the preferred or the desirable, and the constructions of standards to which existing structures or behavior can be compared and assessed. Norms specify how things should be done; they define legitimate means to pursue valued ends. Normative systems define goals or objectives, but also designate appropriate ways to pursue them. In this context, the cultural values and norms held by individuals in the local institutional environment constitute the normative component.

The cultural-cognitive pillar stresses the centrality of cultural-cognitive elements of institutions. They are the shared conceptions that constitute the nature of social reality and the frames through which meaning is made. In this context the normative, cultural-cognitive systems are represented by the multi-ethnic cultural values, specifically Chinese and Malay cultural values of the host country institution.

Table 1.1: Three Pillars of Institutions (Scott, 1995)

<table>
<thead>
<tr>
<th>Descriptions</th>
<th>Pillars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basis of compliance</td>
<td>Regulative</td>
</tr>
<tr>
<td></td>
<td>Expedience</td>
</tr>
<tr>
<td></td>
<td>Normative</td>
</tr>
<tr>
<td></td>
<td>Social obligation</td>
</tr>
<tr>
<td></td>
<td>Cultural-Cognitive</td>
</tr>
<tr>
<td></td>
<td>Taken-for-grantedness</td>
</tr>
<tr>
<td></td>
<td>Shared understanding</td>
</tr>
<tr>
<td>Basis of order</td>
<td>Regulative rules</td>
</tr>
<tr>
<td></td>
<td>Binding expectations</td>
</tr>
<tr>
<td></td>
<td>Constitutive schemes</td>
</tr>
<tr>
<td>Mechanisms</td>
<td>Coercive</td>
</tr>
<tr>
<td></td>
<td>Normative</td>
</tr>
<tr>
<td></td>
<td>Mimetic</td>
</tr>
<tr>
<td>Logic</td>
<td>Instrumentality</td>
</tr>
<tr>
<td></td>
<td>Appropriateness</td>
</tr>
<tr>
<td></td>
<td>Orthodoxy</td>
</tr>
<tr>
<td>Indicators</td>
<td>Rules, Laws,</td>
</tr>
<tr>
<td></td>
<td>Sanctions</td>
</tr>
<tr>
<td></td>
<td>Certification</td>
</tr>
<tr>
<td></td>
<td>Accreditation</td>
</tr>
<tr>
<td></td>
<td>Common beliefs</td>
</tr>
<tr>
<td></td>
<td>Shared logics of action</td>
</tr>
<tr>
<td>Basis of legitimacy</td>
<td>Legally sanctioned</td>
</tr>
<tr>
<td></td>
<td>Morally governed</td>
</tr>
<tr>
<td></td>
<td>Comprehensible</td>
</tr>
<tr>
<td></td>
<td>Recognizable</td>
</tr>
<tr>
<td></td>
<td>Culturally supported</td>
</tr>
</tbody>
</table>
Institutional Pillars and Carriers Model (Scott, 2000)

Institutions, whether regulative, normative, or cultural-cognitive elements are embedded in various types of repositories or carriers: symbolic systems, relational systems, routines, and artifacts. These distinctions are largely orthogonal to the three pillars, permitting the analyst to cross-classify them (Table 1.2).

The *symbolic system* involves culture, that is, the notion of rules and values, as well as symbolic schemata that include models, classifications, representations and logics. They can be examined as social phenomena external to any particular actor but also as subjective, internalized cognitive frames and beliefs that are carried in the minds of individuals. They exist not only as "widely held beliefs" in the wider environment or as laws that organizational actors need to take into account, but also as ideas or values in the heads of organizational actors (Scott, 2000). In this context the symbolic system is represented by the managers’ *Confucian* and the workers’ *Budi* values.

*Routines* are carriers that rely on patterned actions that reflect the tacit knowledge of actors: deeply ingrained habits and procedures based on inarticulate knowledge and beliefs. The stabilizing role played by participants' skills and organizational routines involve activities with little or no conscious choice and behavior as they are governed by tacit knowledge and skills of which the actor may be unaware (Nelson & Winter (1982). Routines range from “hard” activities encoded into technologies, to “soft” organizational
routines such as procedures, involving "repetitive patterns of activity" (Winter (1990, pp.274-75). In this context routines are represented by the daily work activities that are related to the employees' job functions, including the safety rules and regulations that they must comply.

Viewing *artifacts* as an instance of structuration allows analysts to recognize that such inventions are on the one hand, products of human action, but also that once developed and deployed, they become reified and appear "to be part of the objective, structural properties" of the situation (Orlikowski 1991:406). Analysts focusing on artifact creation are better able to see the multiple possibilities: the path selected versus the "roads not taken". Artifacts, like other carriers, can be viewed as associated with, and affected by, each of the three pillars. In this context, artifacts are represented by the technology, buildings, IT support systems that are being used at the subsidiaries.

Table 1.2: Institutional Pillars and ‘Carriers’ Model (Scott, 2000)

<table>
<thead>
<tr>
<th>Carriers</th>
<th>Pillars</th>
<th>Normative</th>
<th>Cultural-Cognitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbolic systems</td>
<td>Rules, laws</td>
<td>Values, Expectations</td>
<td>Categories, Deifications, Schema</td>
</tr>
<tr>
<td>Relational systems</td>
<td>Governance systems, Power systems</td>
<td>Regimes, Authority systems</td>
<td>Structural isomorphism, Identities</td>
</tr>
<tr>
<td>Routines</td>
<td>Protocols, Standard operating procedure)</td>
<td>Jobs, Roles, Obedience to duty</td>
<td>Scripts</td>
</tr>
<tr>
<td>Artifacts</td>
<td>Objects complying with mandated specifications</td>
<td>Objects meeting conventions, standard</td>
<td>Objects possessing symbolic value</td>
</tr>
</tbody>
</table>
Findings

The quantitative findings indicate high implementation and internalization of the practices in most of the subsidiaries, however the qualitative findings indicate significant decoupling of rhetoric and practices, with a marked disconnect between perceptions of the (mainly ethnic Chinese) senior management and the (mainly Malay) workforce. Both the quantitative and qualitative results show one Malaysian subsidiary (National Starch) to be making much less progress in implementation. In addition, the qualitative analysis identifies National Starch, a locally established company as highly resistant to the practice. The study identifies the key factors that prevent the successful transfer of practices are the stage of economic development of the host country and the normative, cultural-cognitive systems of the local institutional environment. The contribution of the study is to improve understanding of processes in the cross national transfer of management practices in MNCs.

Summary

The research lies in applying institutional theory to an empirical study to improve our understanding on the complexities involved in the transfer and adoption of management practices across-national boundaries. The research had identified pressures from the local institutional environment to have influenced the process of transfer and adoption of the practices at the subsidiaries. A significant factor is economic development at the host country as well as at the subsidiary. The high emphasis on productivity by the
government and the subsidiaries had led to low emphasis on the OSH practices. Another significant factor is the normative, cultural-cognitive system of the host country institution, in particular ethnic stratification. The multiple interpretations by the multi-ethnic employees at the subsidiaries had led to decoupling and ceremonial actions. Isomorphic pressures from the external institutional environment had influenced practice behaviors at the subsidiaries, reflecting embeddedness with the local institutional context.

The thesis is organized in six chapters. Chapter 2 discusses the literature reviews on the complexities faced by MNCs in the cross national transfer of practices across national boundaries, and issues relating to adoption. Chapter 3 discusses the research design, methodology, framework of analysis, development of measurement instrument, samplings and data collection process. Chapter 4 comprised of two parts. Part 1 discusses the quantitative analysis and Part 2 discusses the qualitative analysis. The quantitative section describes the various tests applied to analyze the survey data. The qualitative section describes the analysis of the interviews with employees. Chapter 5 discusses the findings and results of the quantitative and qualitative data, highlighting key issues affecting the process of transfer and their implications to theory. Chapter 6 discusses the conclusion, which includes the contribution of this study to understanding of processes in the cross national transfer of management practices, support for existing theories, implications to government policies and IJRM.
CHAPTER 2 – LITERATURE REVIEW

Introduction

Research on the transnational transfer of occupational safety and health (OSH) practices are very few. Most of the research interest in the transnational transfer of practices focused on human resource management (HRM) practices (Gooderham, Nordhaug & Ringdal 1999; Almond, Edwards and Clark 2003; Poutsma, Ligthart & Schouteten 2005). A lot of attention is focused on how multinationals are changing local HRM practices by importing successful practices across national borders, however there has been less focus on how different national institutions may have a differential effect on the ability of MNCs to diffuse such practices across different country settings. Some of the insights generated from the research are that MNCs economize on transaction costs as they transfer firm-specific advantages across national boundaries (Caves, 1971; Buckley & Casson, 1976). Kogut & Zander (1993) highlight the critical role that knowledge creation and transfer play in MNC growth. An important role of subsidiaries is to contribute to growth by building firm-specific advantage through their strategic initiatives and transferring these initiatives to other parts of the MNC network of subsidiaries (Birkinshaw et al., 1998).

MNCs are complex due to the cross-border condition that defines them (i.e., owning facilities and operating in more than one country). MNCs operate in multiple cultural and institutional environments, they use complex organizational arrangements such as virtual and cross-cultural teams, and they deal with a wide variety of managerial
practices, routines, and individual mindsets. As argued by Roth and Kostova (2003), the multinational enterprises are characterized by extreme heterogeneity at the external level (e.g., culture, institutions), the intraorganizational level (e.g., strategic goals, management practices, and control mechanisms of each unit), and the individual level (e.g., nationalities, languages, values, and beliefs of employees), which makes it difficult for shared norms and values to emerge (Kostova & Roth, 2003). It also increases the difficulty of developing identification with multiple units, especially when those units are geographically separated (D Vora & T. Kostova, 2007).

**Overview of the Context of Study**

Kostova and Roth examined the transfer of a quality management practice from the headquarters of a large, privately held U.S. multinational corporation to its subsidiaries in 10 countries in Europe, North and South America, and Asia. 534 managers and 3,238 employees from 104 locations participated in the survey. Kostova & Roth's (2002) study on the adoption of total quality management (TQM) practices by a multinational corporation’s (MNC) subsidiaries focused on the institutional context and internal relationship. They identified that pressures from the regulative, normative and cultural cognitive systems of the local institutional environment (Scott, 1995) have invoked behaviors that conflict with the efficiency of the practices. Kostova and Roth examined the behavioral and attitudinal components (internalized beliefs about the value of practices) of adoption responses by employees within subsidiaries and found variation in the level of institutionalization of the same practice across broad contexts (countries) as
well as across organizational units. In particular, they concluded that while subsidiaries would adopt and implement practices in the face of coercive pressure from the parent, internalization of the meaning of these practices by employees relied on congruence with local cognitive-cultural mindset. Recognizing this distinctiveness, Kostova & Zaheer (1999) offered special theorizing on legitimacy of MNCs, which they argued is necessary because the MNC case highlights a condition of complexity not taken into account in previous work (complexity in the external legitimating environment, the intraorganizational environment, and the process of legitimation). In their previous work, Roth & Kostova, (2003a), emphasized the heterogeneity and complexity of MNCs, which motivates international management researchers to use this context for validating and extending existing management theories.

Kostova & Roth applied cross-sectional quantitative survey to examine the adoption of organizational practices at the foreign subsidiaries of MNCs. In a broad sense, their research provides empirical evidence for the factors influencing MNC subsidiaries' responses to institutional duality. The results show that both dimensions of practice adoption, implementation and internalization, vary across foreign subsidiaries as a result of two factors - the institutional environment in the host country and the relational context within the MNC. However, Kostova & Roth's study was based on broad institutional contexts across several host countries and did not provide descriptions on the processes through which implementation and internalization of the practices were achieved (or prevented) and the factors affecting practice behaviors. Their broad study had left us with a partial understanding of the complexities involved in the cross national
transfer of the practices and adoption at the foreign subsidiaries. This study seeks to identify the barriers that prevent the successful transfer and adoption of the parent's practices across national boundaries. Specifically, the study investigates the factors that impede the successful transfer and adoption at the subsidiaries. The study is also to improve our understanding on the processes of transfer and adoption of parent's practices at the subsidiaries. Applying both quantitative and qualitative analysis, the study examines the process of transfer and adoption at the subsidiaries to provide for a richer description on the complexities involved in the transfer and adoption process. The study examines the conflicting roles played by the host country institutional context to identify the key factors that affect practice behaviors at the subsidiaries.

Using the broad framework of institutional theories the study examines the interplay between two institutional contexts to identify their influence in the cross national transfer and adoption of practices at the subsidiaries. The study draws on neo-institutional theory that does not assume that firms and actors within the institutions act mainly on the basis of rational economic analysis; rather social legitimacy is a principal motivation and economic success is only one source of social legitimacy among others (e.g. Scott, 1995). The study applies the concept of institutional duality (Kostova & Zaheer, 1999 and Kostova & Roth, 2002), which identifies competing pressure for consistency within the multinational enterprise (Rosenweig & Singh, 1991), and pressure for isomorphism with the local institutional environment (DiMaggio & Powell, 1983) to have affected the transfer of practices across national boundaries. When pressured by the parent company to adopt the practice, the subunits are subject to coercive pressure to comply because
there is a ‘within-organization’ domain that defines a set of pressure to which all units within the organization must conform (Kostova & Roth, 2002). However the foreign subsidiary resides in a host country that has its own institutional domain and may have adopted local practices through coercive, mimetic, or normative pressures. The organization may have become isomorphic with the local institutional environment (DiMaggio & Powell, 1983) and may have achieved “common understandings of what is appropriate and fundamentally, meaningful behaviour” (Zucker, 1983: 105). The organization is pressured to maintain legitimacy with the local institutional context and may experience resistance to conform to the internal pressures of the MNC (Westney, 1989). Thus, each foreign subsidiary is confronted with two sets of competing pulls - a need to maintain legitimacy within the host country on one hand, and a need to maintain legitimacy with the parent (MNC) on the other; a condition which is referred as institutional duality (Kostova & Roth, 2002). However, the foreign subsidiary is not an independent entity; hence, if a practice is mandated by the parent, the subsidiary is obligated to comply. In other words, coercive pressures exerted by the parent company force the subsidiary to conform to the practices (Kostova & Roth, 2002). At the same time the foreign subsidiary resides in a host country that has its own set of regulative, normative and cultural-cognitive contexts (Scott, 1995). The transfer of practices can be made more complex when the host country comprised of multiple ethnic groups. The different cultural values and belief systems may cause misinterpretations on the meanings of the practices that may affect adoption. As a result, the subsidiary may implement the practices partially, adopting those components that they feel are necessary to meet the requirements of the parent company, or in extreme cases they may not even consider
complying with the parent's request because they do not believe in the parent's motives (Kostova, 1999).

**Multinational Corporations (MNCs)**

The MNC is concerned with the logic of sequential overseas investments in increasingly important value-adding activities (Forsgren, Holm, & Johanson, 1992; ogut, 1982). Initial overseas investment decisions typically begin with exporting, then proceed through licensing, alliances, and joint ventures to direct investment in a sales subsidiary (Johanson & Vahlne, 1977; Root, 1987). Following the decision to create a sales subsidiary, the MNC will often make subsequent overseas investments in manufacturing (Vernon, 1966) and R&D (Ronstadt, 1977), and the subsidiary company will develop important resources and capabilities of its own (Birkinshaw & Hood, 1998; Malnight, 1995). Finally, the decision may be made to relocate the business unit HQ overseas, as the culmination of a process of sequential overseas investment. In other words, the business unit HQ moves overseas *in pursuit of* the sales and manufacturing activities that have already moved (Birkinshaw et.al, 2006). According to Birkinshaw, the HQ has two essential elements: a top management group that typically has an official location at which it meets, and a series of HQ functions that have the formal responsibility for fulfilling the treasury, investor relations, corporate communications etc., each one of which has an identifiable physical location. There is also a third element in the case of the corporate HQ (but not the business unit HQ), namely the legal domicile—the registration of the MNC in a particular sovereign nation, under which all the other legal entities that
make up the MNC can be grouped. Traditionally, these elements were co-located, but increasingly there had been some separation. It is relatively common at a corporate level for the firm to create a shell holding company in an offshore location because of tax advantages, or to move one or more corporate functions away from the traditional center for a variety of reasons.

According to MNC theories, the multinational corporations can be viewed from two dominant perspectives. Firstly, the 'economic' theory of foreign production, which centers around the insight that imperfections in intermediate markets provide the opportunity for the foreign firm to build competitive advantage over its domestic counterpart (Buckley & Casson, 1976; Dunning, 1980; Hymer, 1976; Rugman, 1981). The second theory is termed the 'network' approach, is that it models the MNC as a geographically-dispersed set of value-adding activities, each activity of which can be viewed as a semi-autonomous entity, with ownership ties, normative links and certain obligations to head office. This theoretical approach has its roots in the work of Prahalad (1976), Bartlett (1979), Hedlund (1986) and White and Poynter (1984), and others. It has recently been invigorated through the application of network principles from other disciplines (e.g. Axelsson & Easton, 1992; Forsgren & Johanson, 1992; Ghoshal & Bartlett, 1990; Nohria & Eccles, 1992).
MNCs: universal vs. context-specific

MNCs bring to the fore the integration/differentiation debate (Lawrence & Lorsch 1969; Roth & Morrison 1990; Birkinshaw, Morrison & Hulland 1995). The integration argument is that there are universal best practices that can be cost-effectively and fairly adopted across the organization world-wide (Pfeffer 1994). The differentiation approach focuses on the need to fit the practices to local conditions, rejecting the notion of one best way of doing things in all contexts (Delery & Doty 1996). This duality between context-free and context-bound multinational organizations is highlighted in the MNC literature (Tregaskis, Heraty & Morley 2001). Integration provides MNCs with economies of scale and a prima facie 'fair' way of operating across the global system; differentiation indicates the need for the organization to be aware of differences in legislative, cultural and other factors in order to gain legitimacy and to be effective. Given that MNCs have pressures for achieving both integration and differentiation, this has been defined by some as duality theory (Evans, Pucik & Barsoux 2002; Kostova & Roth 2002). The role of the multinational firm and the desire to promote integrated international standards versus pressures to be locally responsive, have been widely discussed (Hamel & Prahalad 1985; Ashkenas, Ulrich, Jick & Kerr 1995; Yip 1995; Kim & Gray 2005). MNCs have the option of adopting the practices with which they are most familiar or which appear to promise high returns in performance, regardless of the location of their subsidiary (Goorderham & Nordhaug 2003). However, this standardization can lead to conflict between company practices and local prevailing conditions in terms of national cultural phenomena, institutions and business systems. The extent of adaptation of practices required is thus largely related to the extent of differences that exist between the parent
and host country in terms of national regulations, institutions and culture, as well as corporate strategic choice (Taylor, Beechler & Napier 1996). The ability to deploy similar organizational practices worldwide is likely to encourage greater homogenization on efficiency grounds (Zeira & Harari 1977; Kostova & Roth 2002). This perspective assumes (within the rational choice tradition of management studies) that firms pursue economic advantage through choices 'guided by unambiguous preferences and bounded rationality' (Gooderham et al. 1999, p. 507). On the other hand, the notion of 'best fit' draws strongly on neo-institutional theory, arguing that multinationals operating in a new context are subject to a range of forces (coercive, mimetic and normative (DiMaggio & Powell, 1983). A primary concern of contemporary institutional accounts concerns isomorphism at country level (Guler, Guillen & Macpherson 2002). This reflects the formal regulatory structures, the manner in which the socialization process is framed by nation-specific formal and informal patterns of behaviour and, perhaps, the greater ease of researching within one national context. Comaroff & Comaroff (2001) note that globalization processes do not have simple homogenizing effects; rather they are reshaped, resisted and redeployed by the socially-embedded processes of the host locale, emphasizing country-level distinctiveness (see also, Ferner 1997; Ferner & Quintanilla 1998; D’Aunno, Succi & Alexander 2000).

**MNCs: Global Standardization**

The term 'globalization' is widely deployed and often differently understood: in most accounts it refers to the recent process of unification that has taken place in markets and
consumer tastes, increasingly mobile investor capital, and rapid technological change. From the perspective of convergence or similarity theories, the transnational transfer of practices from the head office of an MNC to its foreign subsidiaries can best be understood by looking at the concept of globalization. Within and between firms, actions are increasingly grounded in a perspective that views the whole world as being nationless and borderless (Ohmae, 1990, 1996). Whilst acknowledging that we start from regionally based economic systems, globalization theories hold that economies are becoming globally integrated, resulting in the proliferation of global management structures and the convergence of management techniques around shared notions of 'best practice' (Sera, 1992). This has placed renewed pressures on firms to enhance their competitiveness. Firms that operate across national boundaries are most exposed to the forces of globalization, and hence are most likely to fall in line with dominant worldwide practices aimed at enhancing competitiveness in world markets.

There is a body of literature that focuses on the role of the multinational firm, and the desire to promote integrated international standards, versus pressures to be locally responsive (Ashkenas et al., 1995; Hamal & Prahalad, 1985; Kim & Gray, 2005; Yip, 1995). The ability to deploy similar organizational practices worldwide, and to utilize the capacities of the entire firm, is likely to encourage greater homogenization on efficiency grounds (Kostova & Roth, 2002; Zeira & Harari, 1977). Grounded in the rational choice tradition, this perspective assumes that firms pursue economic advantage through choices 'guided by unambiguous preferences and bounded rationality' (Gooderham, Nordhaug & Ringdal, 1999, p. 507). Industries will adopt practices that promote the maximization of
economic goals; this will result in a set of best practices diffusing across the parent economy and worldwide. Firms will either try to enforce their own view of the most efficient ways of handling HRM in other countries; or they will all gradually drift towards policies for example occupational safety and health practices (OSH) that mirror the most efficient, the US, model (Jain, Lawler and Morishima, 1998; McDonough, 2003; Smith & Meiksins, 1995). Thus global markets create new homogeneous environments where the conditions in which companies operate become similar in terms of products, competition and the rate of technological change (Duysters & Hagedoorn, 2001). Global competition places greater demands on the coordination of resources, equipment, finance and people (Sparrow, Brewster & Harris, 2004). In response, the global enterprise adopts a global business strategy transcending both internal (people, processes and structure) and external (time and country) factors (Parker, 1998). Traditional business boundaries become increasingly permeable, accelerating the rate of convergence. Hence, in-firm practices become decoupled from setting, challenging national mindsets and assumptions (Sparrow & Hiltrop, 1997).

**MNCs: Localization**

Institutional theories suggest that organizations sharing the same environment will gradually adopt similar characteristics, and hence become ‘isomorphic’ with each other (Kostova & Roth, 2002). Three forms of isomorphism may be identified: coercive (where the firm is forced to adopt specific practices); mimetic (specific practices associated with success are adopted to avoid uncertainty); normative (behavior considered appropriate to
the environment) (Di Maggio & Powell, 1983). Firms will conform to the formal rules and unwritten norms of specific institutional contexts both for efficiency and legitimacy (Haveman, 1993; Kostova & Roth, 2002; Marsden, 1999). Social transactions remain embedded in specific social contexts (Boyer & Hollingsworth, 1997). This is likely to encourage the adoption of certain practices and discourage others within a particular context; those seen to be successful will be taken on board by other firms and those associated with failure discarded (Haveman, 1993).

The cultural perspectives, most closely associated with the writings of authors such as Hofstede (1991), Fukuyama (1995) & Sako (1998) had accord particular prominence to the possibility that organizations represent 'cultural communities' of rational utility maximizing individuals (cf. Cooter, 2000). Variations in practices will be in line with different cultural contexts (rather than institutional setting), which will cut across national boundaries (Lao & Ngo, 2001): Bartlett & Ghoshal (1989) called this the pressure for 'multi-culturalism' within international organizations. Culturalism is a very broad school of thought. Key distinctions in different approaches to understanding culture in different natural settings are the concepts of etics and emics. Etic approaches seek to 'describe phenomena in constructs that apply across cultures' (Morris et al., 1999, p. 782). Regional or national variations in culture are described in terms of some general or external standard or yardstick. Hence, Hofstede's (1980) framework for understanding cultural variations which seeks to identify key values, and the extent of variation thereof in different national settings, is firmly rooted in the etic tradition (Morris et al., 1999, p. 782). In contrast, emic approaches hold that culture is best understood as an integrated
whole or social system, rather than trying to identify specific components thereof (Giddens, 1990; Parsons, 1951); within this, individual and group understandings are societally and historically defined, and are best understood by attempting to see things from 'the insider's point of view' (Morris et al., 1999, p. 781). Culture is seen as a specific component of reality, shared by individuals as a means of conferring meaning, to add sense to social interactions. Whilst its composition may be relatively fluid and subjective, it provides a persistent boundary, horizon or 'segment' to the life-world of individuals and groups (Weber, 2000, p. 207). Both institutional and cultural theories suggest that the need for MNCs to obtain legitimacy or adapt their activities in specific contexts is likely to make for isomorphism in line with local practices (Kostova & Roth, 2002). Giacobbe-Miller et al. (2003) suggest that individual and group cultural orientations reflect specific cultural characteristics, whilst firms will vary within specific cultures according to institutional realities. As with institutional accounts, cultural theories suggest that MNCs' subsidiaries are likely to adopt practices in line with their host country.

Cross-national dissimilarities in institutional structures are likely to create management practices that vary from country to country, regardless of the fact that management theories are often rapidly disseminated across national borders (Gooderham, Nordhaug & Ringdal (1999: 508). Recent studies provide evidence supporting this view (Campbell & Lindberg, 1990; Cole, 1989; Hall, 1986; Jepperson & Meyer, 1991; Orru, Biggart, & Hamilton, 1991; Strang & Meyer, 1992; Whitley, 1992a, 1992b). For example, Orru and colleagues found that firms in Japan, Taiwan, and South Korea "operate according to
different institutional principles and exhibit dissimilar organizational and interorganizational structures (1991: 363). In a study, Budhwar, P.S. & Sparrow, P.R. (2002) identified similarities and differences in managers’ thinking on HRM policies and practices at the cross national level. They argued that the key to success lies in the availability of in-depth information on local settings. Duality theories suggest that firms face conflicting pressures towards global integration and local adaptation (Evans, Pucik & Barsoux, 2002; Gooderham, Nordhaug & Ringdal, 1998; Kostova & Roth, 2002; Rosenzweig & Singh, 1991) and that the speed at which different sets of practices are diffused is likely to vary from context to context and may vary between practices (Guler, Guillen & Machpherson, 2002) Whilst firms may strive to homogenize activities across national boundaries in line with a global strategy, invariably countertendencies will impel firms to take account of local difference; the outcome will therefore incorporate both national and global dimensions.

**Headquarters-Subsidiary Relationship**

It is currently accepted in the management literature that MNCs differentiate their local subsidiaries' roles (Taggart, 1998; Martinez & Jarillo, 1991; Bartlett and Ghoshal, 1989) and that structures, management processes and control practices will be differentiated to match the contexts of different national subsidiaries (Ghoshal & Nohria, 1989). Prior research supports the notion that there is an association between the context of the MNC subsidiary and the design of the management control system. Aspects of the "context" which have been addressed include: the interrelationships between subsidiaries (Baliga &
Jaeger, 1984), the environmental uncertainties (Brownell, 1987), the size of the subsidiary (Baliga & Jaeger, 1984; Snell, 1992), the subsidiary location (Schweikart, 1986; Daley et al., 1985), the nationality of the parent company (Egelhoff, 1984; Kriger & Solomon, 1992; Ulgado et al., 1994) and the cultural proximity of subsidiary to parent organisation (Baliga & Jaeger, 1984; Schweikart, 1986). A few studies have also examined the relationship between the mandates of MNC subsidiaries and controls (Gupta & Govindarajan, 1994; Birkinshaw, 1997) and the control issues related to knowledge, product and capital interdependencies (Brewster et al., 2007). The configuration of interdependence thus defines both the unique context of the subsidiary and its role in the MNC network. Thus the HQ–subsidiary relationship is that of the generic superior–subordinate relationship that exists throughout organizations (Birkinshaw et al., 2000). Building from the theories of perceptions (Levine & Shefner, 1981), Birkinshaw et al., (2000) argued that perception gaps exist between headquarters and subsidiaries. An issue of importance in MNC research is how to leverage and transfer dispersed knowledge (Kogut & Zander, 1995; Szulanski, 1996) to gain advantages from multinationality, or in managers' terms, how to 'transfer best practices'. Research by Arvidsson (1997) had shown gaps in perceptions can actually lead to the 'transfer of mediocre practices'.

Role of Subsidiaries

The subsidiary companies now are taking on an ever increasing variety of roles; whereas subsidiaries began as 'market access' operations for selling the MNC's products in the
host country, most now also perform higher value-added activities such as manufacturing and R&D (Forsgren, Holm & Johanson, 1992). This differentiation of roles makes it increasingly difficult for HQ to control their subsidiaries by traditional means, so they increasingly resort to other, more informal systems to retain control (Prahalad & Doz, 1981). In this perspective, the flow of information within the MNC is far from perfect. Knowledge is a 'sticky' asset (Szulanski, 1996; Von Hippel, 1994; Zander, 1991) that does not flow easily between locations; humans have limited rationality; and MNCs are extremely large, complex, and geographically dispersed. The subsidiaries' roles can be viewed from three different perspectives (Birkinshaw & Hood, 1998): Head office assignment, Subsidiary choice, and Local environment determinism. Head office assignment assumes that the role of the subsidiary is defined by head office managers, and is controlled through a variety of formal and informal mechanisms (e.g. Bartlett & Ghoshal, 1989; Prahalad & Doz, 1981). Subsidiary choice assumes that the subsidiary has sufficient degrees of freedom that it can define its own role (Birkinshaw, 1997). Local environment determinism assumes that the subsidiary's role is strongly influenced by the specific characteristics of the host country (Forsgren, Holm & Thilenius, 1997; Ghoshal & Nohria, 1989). Thus the role of the subsidiary then, is actually a negotiated position that is to some degree understood jointly between HQ and subsidiary managers (J. Birkinshaw et al. 2000).
Transfer of Organizational Practices

The role of the multinational firm and the desire to promote integrated international standards versus pressures to be locally responsive, have been widely discussed (Hamel & Prahalad 1985; Ashkenas, Ulrich, Jick and Kerr 1995; Yip 1995; Kim & Gray 2005). MNCs have the option of adopting the practices with which they are most familiar or which appear to promise high returns in performance, regardless of the location of their subsidiary (Gooderham & Nordhaug 2003). The ability to deploy organizational practices worldwide is likely to encourage greater homogenization on efficiency grounds (Zeira & Harari 1977; Kostova & Roth 2002). However, a primary concern in the transnational transfer of practices from the perspective of contemporary institutional accounts concerns isomorphism at the host country level (Guler, Guillen & Macpherson 2002). Comaroff & Comaroff (2001) note that globalization processes do not have simple homogenizing effects; rather they are reshaped, resisted and redeployed by the socially-embedded processes of the host locale, emphasizing country-level distinctiveness (see also, Ferner 1997; Ferner & Quintanilla 1998; D'Aunno, Succi & Alexander 2000). Neo-institutional theory (DiMaggio & Powell 1983) recognizes coercive and normative pressures in the environment often lead to organizations having to adapt their practices to fit the local context. It has been suggested that firms will adhere to embedded formal rules and unwritten norms in the interests of efficiency and legitimacy (DiMaggio & Powell 1983; Marsden 1999).
Factors affecting transfer/adoption of practices across national contexts

Regulatory Institutions/Rational Determinants: The organization’s positioning on the nature and extent of adoption of local practices can be explained in terms of regulatory institutions, or rational determinants such as local market conditions, ownership structures, the state of the external market and/or behavioral or attitudinal variables and factors such as whether or not the local subsidiary is engaged in joint or licensing ventures with local partners (Davis, Desai & Francis, 2000). The relative strength of local competitors may force firms to tailor their products to meet local taste or regulations, necessitating specific production policies. The ability of firms to establish a sustained competitive advantage is contingent on their ability to implement strategies that competitors are not immediately able to duplicate; such strategies vary from context to context (Park et al., 2003). Marginson et al. (1993) suggest that the relative size of a firm may impact on practices; this would encompass relative receptiveness to external environmental pressures. For example, complex social systems, like HRM systems, are not easy to imitate and may be the best sources of competitive advantage (Pfeffer, 1994; Snell, Youndt & Wright, 1996; Ulrich & Lake, 1990; Wright & McMahan, 1992). MNCs may be characterized by an internal differentiation of management practices from national context to national context (Bartlett & Ghoshal, 1989). Pressures towards conformity with embedded local practices will be contingent not only on size but also the firm’s own ownership structures (Jain, Lawler & Morishima, 1998). Ownership structure will partially determine behavior, and will reflect whether the subsidiary is wholly or
partially owned and the degree of integration or interdependence accorded to different parts of the firm. Some organizations may be more sensitive to pressures of local adaptation, while others may be more prone to internal consistency. Within the same subsidiary, some management practices might closely follow the parent company ones, while others may more resemble those of the host country.

**Culturalism:** Symbiotic emic and etic approaches to cross-national research focus on the dialectic between the general and the spatially specific, and explore the extent to which concepts and actions simultaneously incorporate dimensions that have a universal applicability or are specific to a particular culture (Lamond et al., 2001). Hence, behavioral variations of the duality perspective accord specific attention to variations in practice within the firm (Newbury, 2001; Rosenzweig & Nohria, 1994). Practices should be seen in terms of the active agency of subsidiary management, and the degree of discretion accorded to it (Kostova & Roth, 2002). In turn, this would reflect overall organizational strategic orientations, and the relative importance attached to conformity. Whilst management practices are required to fit in and be legitimated by the organization, local legitimacy is also dependent on compliance with local institutions and norms. Compliance with the 'ways of the country' may make for greater operational efficiency (Lee & Larwood, 1983, p. 657). Organizational outcomes will reflect the real choices made by individual actors, who may be more or less receptive to socialization in an attempt to behave in ways appropriate to their specific context (Lee & Larwood, 1983). Recurrent themes in the literature are the link between the strategy-structure configuration in MNCs and the competing demands for global integration and

**Cultural Distance:** Cultural distance, which refers to differences in cultures can hinder understanding of a foreign environment (Kogut & Singh, 1988; Park & Ungson, 1997). Countries that are culturally close (e.g., U.K. and U.S) have more similar cultural values and norms than those that are culturally distant (e.g., U.K. and Malaysia). Although there are differences between culturally close countries that can affect business operations (O'Grady & Lane, 1996), differences from culturally distant countries are greater and are expected to cause greater misunderstanding (Park & Ungson, 1997). Kogut and Singh (1988:414) suggest that 'the more culturally distant are two countries, the more distant are their organizational characteristics on average.' While cultural distance could be related to MNEs, the root cause of organizational differences here is cultural (rather than organizational) and thus cultural distance refers to the country-level (D Vora & T. Kostova, 2007). Culturally distant units differ in their organizational practices, administrative operations, and management systems (Kogut & Singh, 1988; Park & Ungson, 1997).

**Institutional Differences:** In addition to cultural differences, MNCs also face institutional differences (Kostova & Roth, 2002). Institutional theory suggests that organizations must adapt to the local environment's rule and belief systems in order to survive (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Scott, 1995). Institutional systems have regulatory, cognitive, and normative components. The regulatory aspect
comprises rules and laws to ensure stability and order, the cognitive component consists of shared cognitive categories such as schemas and frames that impact how people interpret the environment, and the normative component comprises society's values and norms (Kostova, 1999; Kostova & Zaheer, 1999; Scott, 1995). MNCs, because of their presence in different countries, must deal with multiple institutional environments since each country typically has its own institutional environment (Kostova & Zaheer, 1999). It is the overall differences in such institutional environments that are referred to as institutional distance. As Xu & Shenkar (2002: 608) explain, 'institutional distance is the extent of similarity or dissimilarity between the regulatory, cognitive, and normative institutions of two countries'. MNCs are embedded in their institutional environments and thus their characteristics are shaped by the surrounding institutions. As Xu & Shenkar (2002) note, local governments may enact laws precluding the MNC from adopting its typical business practices in a country, routines may need to be adapted to ensure no symbolic challenge to local cognitive schemas, and goals and objectives may need to change to reflect the normative environment. Hence, when the institutional distance between the MNC and the subsidiary countries is large, subsidiary managers identifying with both are likely to perceive their identifications as distinct. In contrast, the more similar the institutional environments, the less the MNC would need to adapt its goals, objectives, and practices to the local environment, and the more similar its units will be (D Vora & T. Kostova, 2007). Kostova (1998) and Kostova & Roth (2002) suggest that subsidiary employees who identify with the parent are more likely to transfer organizational practices from the parent to the subsidiary.
**Isomorphism:** Isomorphism refers to the adaptation of an institutional practice by an organization. The incorporation of institutionalized environmental structure is an isomorphic process and takes place “...via a broad array of adaptive processes occurring over a period of time and ranging from co-optation of the representatives of relevant environmental elements to the evolution of specialized boundary roles to deal with strategic contingencies” (Scott, 1991, p. 179). Three classifications that relate to the motivation to adopt institutional practices are proposed: coercive, mimetic and normative (DiMaggio & Powell, 1983). Coercive isomorphism results from both formal and informal pressures exerted on an organization by another party upon which it is dependent, and by expectations of the society within which it operates. Mimetic isomorphism is a process that takes place when an organization attempts to imitate a more successful referent organization, a process that is often due to the uncertainty and lack of guidance in its own environment. Normative isomorphism stems from professionalization, i.e. the collective struggle of members of an occupation to define the conditions and methods of work.

**Decoupling of Practices:** Decoupling (Meyer & Rowan, 1977) refers to the situation in which the formal organizational structure or practice is separate and distinct from actual organizational practice. In other words, the practice is not integrated into the organization’s managerial and operational processes. Formal structure has much more to do with the presentation of an organizational-self than with the actual operations of the organization (Carruthers, 1995). Ideally, organizations pursue economic efficiency and attempt to develop alignment between organizational hierarchies and activities. However,
an organization in a highly institutionalized environment may face conflicts and inconsistencies between the demands for efficiency and the need to conform to "ceremonial rules and myths" of the institutional context (Meyer & Rowan, 1977). In essence, institutionalized, rationalized elements are incorporated into the organization's formal management systems because they maintain appearances and thus confer legitimacy whether or not they directly facilitate economic efficiency.

**Relational Context:** Transfer failures are possible, even when both the social and the organizational contexts are favorable. A potential reason for such failures could reside in the specific relationships that exist between the parties involved in the transfer. The processes of transfer of strategic practices are commonly associated with major changes at the recipient unit, such as breakup of existing routines for certain tasks, extensive training of the workforce, shifts in the power structure, and changes in the organizational philosophy and culture. For this reason, the successful accomplishment of transfers requires substantial time, effort, and, therefore, motivation on behalf of the important decision makers and key players at the recipient unit. The core group, which consists of the key managers of the recipient unit who are "in charge" of all transfers, and who quite often have a lot of discretion in making a decision of whether to engage in the transfer or not and, if so, how much effort to put into it. The expert group is practice specific and may include employees who are experts in the functional area of the practice. For example, a "stickiness" which is defined as the difficulty of knowledge transfer inside the firm (Szulanski, 1996) is more likely to occur when there is a lack of motivation on behalf of the recipient, a lack of perceived reliability. Kostova (1999) propose that the
motivation of the transfer coalition to engage in the process of transfer is affected by the quality of its relationship with the parent company. As suggested in network theory (e.g., Granovetter, 1992), individual actions can be explained partly by their relational embeddedness. Relational embeddedness refers to the fact that "economic action and outcomes, like all social action and outcomes, are affected by actors' dyadic (pairwise) relations and by the structure of the overall network of relations" (Granovetter, 1992: 33). Relational embeddedness also reflects the temporal dimension in contextual influences—that is, the effects of past relationships between individuals on their current actions, which, as argued by Mowday & Sutton (1993), can enrich understanding of organizational behavior. Kostova (1999) argued that attitudinal relationships and power/dependence relationships affect the motivation to engage in the transfer process, especially when the direct value of the knowledge that is being transferred is difficult to assess, such as in the case of transfer of strategic organizational practices. Three types of attitudinal relationships affect the motivation of members to engage actively in the transfer process and, in turn, affect transfer success: their commitment to, identity with, and trust in the parent company. As suggested in the literature (Kagan, 1958; O'Reilly & Chatman, 1986), individuals' identity with an organization results from a strong belief and acceptance of the values and goals of the organization. Therefore, members of the transfer coalition who identify with the parent company likely will share the values and the beliefs of the company embodied in the practice that is being transferred, and they will understand better the meaning and the value of the practice for the company. As a result, members will be likely to engage more actively in the transfer of the practice to their units. These arguments are consistent with Child & Rodrigues's (1996) findings that
knowledge transfer in international joint ventures is facilitated when the partners involved in the transfer hold similar social identities and is impeded when they hold different social identities. Bromiley & Cummings' (1995) defined interorganizational trust as a common belief among members of the coalition that the parent company (1) makes good-faith efforts to behave in accordance with any commitments, both explicit or implicit; (2) is honest in whatever discussions precede such commitments; and (3) does not take excessive advantage of the recipient unit, even when the opportunity is available. Higher levels of trust in the parent company will likely reduce the uncertainty regarding the value of the practice for the recipient unit, as well as the motives behind the transfer. Higher trust also will be associated with higher perceived reliability of the source—a factor shown to positively influence transfer success (Szulanski, 1996). Finally, trust may reduce the costs of communication, negotiation, and exchange associated with a transfer between the sender (parent company) and the recipient (Bromiley & Cummings, 1995; Zaheer, McEvily, & Perrone, 1998). Transfers will be more likely to succeed when members of the transfer coalition hold positive attitudes toward the parent company.

**Theoretical Framework**

Institutional theory is widely used when studying the adoption of particular organizational practices or strategies (e.g., Meyer & Rowan, 1977; DiMaggio & Powell, 1983; Scott, 1995). A central tenet of institutional theory is that organizations need to achieve and maintain environmental legitimacy, defined as 'a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some
socially constructed system of norms, values, beliefs and definitions' (Suchman, 1995, 574). In order to survive, organizations conform to the rules and belief systems in the environment (Meyer & Rowan, 1977; DiMaggio & Powell, 1983) because this isomorphism earns them legitimacy (Suchman, 1995; Deephouse, 1996). As a result, organizations sharing the same environment will choose the same practices or strategies and become isomorphic with one another (DiMaggio & Powell, 1983; Baum & Oliver, 1991). In other words, conformity among firm practices within countries is due to an overall pressure to conform to the institutional norms within the environment. While organizations sharing the same environment will tend to choose similar strategies in order to achieve legitimacy, Rosenzweig & Singh (1991) recognize that differences in the external environments result in heterogeneity of organizational practices across countries, something the studies of Kostova (1999) and Xu & Shenkar (2002) confirm. Institutional theory scholars recognize that MNCs are faced with multiple institutional pressures (Westney, 1993), and contend that the establishment and maintenance of legitimacy in multiple host environments is one of the most critical MNC issues (e.g., Kostova & Zaheer, 1999; Kostova & Roth, 2002).

An increasing number of international management scholars are applying institutional theory to the study of MNCs (Dacin, Goodstein, & Scott, 2002) since it provides a rich theoretical foundation for examining a wide range of critical issues and also allows for theorizing at multiple levels of analysis, which is essential for MNC research (Djelic & Quack, 2003). In general, most international management scholars have adopted a view of institutional theory, drawing exclusively from neoinstitutionalism (e.g., DiMaggio &
Powell, 1991; Meyer & Rowan, 1977; Scott, 1995) and utilizing the concepts of organizational field, legitimacy, isomorphism, and mechanisms of institutional pressures. The neoinstitutional model essentially holds that organizational survival is determined by the extent of alignment with the institutional environment; hence, organizations have to comply with external institutional pressures. While allowing for a nominal amount of agency, neoinstitutionalists largely suggest that incorporation of institutionally mandated elements allows organizational actors to portray the organization as legitimate, thereby enhancing its likelihood of survival. Multinational organizations are substantially different from domestic firms, and some of these differences are not only "in degree" but also "in kind" (Westney & Zaheer, 2001). In their discussion of diversified MNCs, Doz and Prahalad suggested that the main distinction is based on "the combined consequences of multidimensionality and heterogeneity" (1991: 146).

**Institutional Duality (Kostova & Zaheer, 1999; Kostova & Roth, 2002)**

Fundamental to institutional theory is the cross-border condition, which results in diverse, non-monolithic, fragmented, and possibly conflicting sets of external environments for MNCs. In addition, MNCs have complex internal environments, with spatial, cultural, and organizational distance; language barriers; interunit power struggles; and possible inconsistencies and conflict among the interests, values, practices, and routines used in the various parts of the organization. The MNC is a single organization that operates in a global environment with a need to coordinate its far flung operations, at the same time the MNC is a network of organizations that operate in distinct national environments...
(Rosenweig & Singh, 1991). These organizations or foreign subsidiaries are faced with pressures of legitimacy from the parent on the one hand, and the host country institutional context on the other (Kostova & Roth, 2002). For purposes of synergy and efficiency, MNCs often engage in cross-unit transfer of business practices and knowledge that they believe to be a source of competitive advantage to the foreign subsidiaries (Kostova, 1999). Internal transfers of practices are critical for MNCs for the primary advantage that they bring to foreign markets, that is its superior knowledge which can be utilized in its subsidiaries worldwide (Bartlett & Ghoshal, 1997; Kogut, 1991). Several researches on the transfer of practices in MNCs had focused on the characteristics of the practices that are being transferred, and identified them to be cultural and organizational in nature (Ghoshal & Bartlett, 1988; Kedia & Bhagat, 1988; Szulanski, 1996; Zander & Kogut, 1995). Others had identified that organizations conformed to structures and practices because of coercive pressures (DiMaggio & Powell, 1983) from the external (political) and internal (MNC) domains. Organizations also conform to practices due to legitimacy reasons (e.g. Meyer & Rowan, 1977).

MNCs and their subunits face multiple, fragmented, nested, or often conflicting institutional environments. Such conditions, coupled with spatial, language, cultural, and organizational barriers, preclude sufficient interorganizational interactions (Kostova, Roth & Dacin, 2008). From the regulative perspective, MNCs across countries and industries operate according to particular rules, logic, and norms and that might be subject to scrutiny and sanctions by certain legitimating actors in the case of deviation or violation. This is consistent with recent trends in the practice of the global management
of establishing guidelines and expectations for MNC behavior on a worldwide basis, primarily in the area of social responsibility. Examples include environmental standards and safety, human rights issues, and ethical labor practices. However, this is not always successful since it involves institutionalized values and practices that MNCs enforces due to complexity of the normative, cultural-cognitive pillars of the host country environment (Kostova, 2002).

Applying institutional theory logic to MNC subsidiaries, Kostova and colleagues (Kostova and Zaheer, 1999; Kostova and Roth, 2002) recognize that, in addition to pressures to conform to the external environment, foreign MNC subsidiaries are subject to internal pressures to conform. In other words, there is a within-organization domain that defines a set of pressures to which all units within the organization must conform. At the same time, the foreign subsidiary resides in a host country with its own institutional patterns specific to that domain. The simultaneous pressures for foreign subsidiaries to conform to two different sets of isomorphic pressures described as 'institutional duality' (Kostova & Zaheer, 1999; Kostova & Roth, 2002), recognize that both external and internal legitimacy are likely to influence a foreign subsidiary's practices. Thus firms face conflicting forces towards global integration and local adaptation (Rosenzweig & Singh 1991; Gooderham, Nordhaug & Ringdal 1998; Evans et al. 2002; Kostova & Roth 2002).

The concept of 'institutional duality' provides an effective framework to analyze the transfer and adoption of practices within the context of dual institutional environments,
i.e. the U.K. parent and the Malaysian subsidiaries. The concept of institutional duality helps the researcher to identify competing sets of isomorphic pressures at multiple levels of the institutions. It helps to focus on internal and external pressures at different levels of the institutions that affect transfer and adoption of the practices. For example, at the headquarters level it helps to identify differences in institutional contexts between the Western parent and the South East Asian subsidiaries that may affect the transfer of practices. At the subsidiary (organizational) level, it helps to identify isomorphic pressures that influence practice perceptions and meaning of practices, which may influence practice behaviours and cause inefficiencies.

**Institutional Pillars and Carriers (Scott, 1995; Scott, 2000)**

Scott (1995) describes the institutional context as composed of three institutional pillars: regulatory, normative and cultural-cognitive systems. The regulative system is distinguished by the prominence of explicit regulatory processes such as rule setting, monitoring, and sanctioning activities. The primary form of control is coercion (DiMaggio & Powell, 1983) with force, fear and expedience being central ingredients (Scott, 2001). This element is important in ensuring stability and order in societies (North, 1990; Streeck & Schmitter, 1985; Williamson, 1975, 1991). The normative components of the institutional environment are the values and norms held by the individuals in a given context (eg. country, sector or cultural group) (Kostova & Roth, 2002). They introduce "a prescriptive, evaluative, and obligatory dimension into social life" (Scott, 1995: 37). Values are the conceptions of the preferred or the desirable, the
evil versus good, and paradoxical versus logical (Hofstede, 1991). Norms specify how things should be done, "they are the standards for values that exist within a group or category of people" (1991: 8). The cultural-cognitive mode is deep seated, and rests on "preconscious, taken-for-granted understandings" of the world they are in (Scott, 2001:61). The cognitive components constitute the nature of reality and the frames through which meaning is made (Scott, 1995: 40). They reflect the cognitive categories that are widely shared by the people in a particular country and affect the way people notice, categorize, and interpret stimuli from the environment (Markus & Zajonc, 1985). Although they are carried by individuals, cognitive programs are elements of the social environment and are social in nature (Berger & Luckman, 1967).

According to Scott (1995), external legitimacy is attained when organizations conform to three pillars of isomorphism: regulatory, normative and cognitive. The regulatory pillar refers to 'the existing laws and rules in a particular national environment that promote certain types of behaviour and restrict others' (Kostova, 1999, 314). The normative pillar reflects the cultural values, beliefs and desirable goals of the society, which determine legitimate organizational behavior. Finally, the cognitive pillar refers to the shared social knowledge and cognitive schemas used by the people in a country (Kostova & Roth, 2002). Researchers adopting Scott's three pillars of institutions suggest that elements of the regulatory, normative and cognitive pillars relevant to a specific behavior or issue vary (e.g., Rosenzweig and Singh, 1991; Kostova and Roth, 2002). Just as external pressures for legitimacy influence the strategies of MNE subsidiaries, institutional theory scholars recognize internal pressures for legitimacy within the MNE (Kostova & Roth,
2002). Internal legitimacy is similar to external in that it refers to 'the acceptance and approval of an organizational unit by other units within the same firm and, primarily, by the parent company' (Kostova & Zaheer, 1999, 72). Scott’s concept of institutional pillars provides an effective framework to analyze the interplay between the regulative, normative and cultural-cognitive systems of the local institutional context in the adoption of practices. For example, the framework helps to identify internal and external legitimacy, that is, the regulative systems or legislations specific to the practices, the attitude and behaviours towards the practices, and their links to the local cultural belief systems of the multiethnic groups. The framework also helps to identify coercive isomorphism from both formal and informal pressures and level of embeddedness with the local institutional context.

**Organizational Practices**

Organizational practice is defined as particular ways of conducting organizational functions that have evolved over time under the influence of an organization’s history, people, interests, and actions and that have become institutionalized in the organization (Kostova, 1999). Practices are multifaceted. They consist of different elements, including a set of written and/or unwritten rules of how a certain organizational function should be conducted and an accompanying set of cognitive elements (such as the concepts and categories by which these rules are described). In addition, the rules of a practice reflect a set of underlying values and beliefs (Hofstede, 1991). For example the practices of ethical business conduct employed by many firms include rules of how a firm
should relate to its various stakeholders (e.g. customers and communities), concepts (e.g. social responsibility and corporate giving) that are instrumental for explaining these rules, and a set of underlying values and beliefs (e.g. beliefs about what ethical business conduct is). The practices that organizations develop and institutionalize vary widely. Some are narrow in scope, referring to specific tasks within a functional area (e.g. a firm's practices for employee evaluation). Others are broader, referring to larger tasks (e.g. total quality management). Practices also differ with regard to their degree of formalization, ranging from highly formalized (i.e., there are written rules describing the practices) to completely informal (Kostova, 1999). Yet another distinction is their content and focus, with some being primarily technical and others more social. Winter (1990), for instance, suggests that organizational 'genes' range for "hard" (i.e. activities encoded into technologies) to "soft" (i.e. activities encoded into people's actions). Similarly, Kedia & Bhagat (1988) distinguish between "people-embodied" and "product-embodied" technologies. Organizational practices are also described as those practices that are believed to be of strategic importance to the firm – that reflect the core competencies of the firm and provide a distinct source of competitive advantage that differentiates the firm from its competitors (Kostova, 1999). Strategic organizational practices tend to be more complex and broad in scope, and more "people" rather than "technology" focused, because these characteristics are likely to make a practice less imitable and more critical for the competitive edge of a firm (Kostova, 1999). Thus, strategic organizational practices are meaning and value based, as well as knowledge based; hence the success of their transfer is determined by the transferability of meaning and value, in addition to the transferability of knowledge.
Organizational practices can also be seen as management innovation, specifically, the invention and implementation of a management practice, process, structure, or technique that is new to the state of the art and is intended to further organizational goals (Birkinshaw et al., 2008). There are four key perspectives in the literature: (1) an institutional perspective that focuses on the socioeconomic conditions in which new management ideas and practices take shape (e.g., Guillén, 1994); (2) a fashion perspective that focuses on the dynamic interplay between users and providers of management ideas (e.g., Abrahamson, 1996); (3) a cultural perspective that focuses on how an organization reacts to the introduction of a new management practice (e.g., Zbaracki, 1998); and (4) a rational perspective that focuses on how management innovations—and the individuals who drive them—deliver improvements in organizational effectiveness (e.g., Chandler, 1962). There is also a related body of literature concerned with the subsequent diffusion of management innovations across industries or countries (e.g., Guler, Guillén, & MacPherson, 2002).

**Barriers to Adoption of Practices**

*External Legitimacy:* Particularly important to the concept of dual institutional pressures is that the foreign subsidiary of the MNC is not an independent entity (Kostova & Roth, 2002). This is because the foreign subsidiary resides in the local institutional environment, defined by Lincoln, Hanada, & McBride (1986: 340) as a "set of highly established and culturally sanctioned action patterns and expectations". Organizations need to maintain legitimacy to receive acceptance by the local institutional environment.
since it is vital for their long term business survival and success (Dowling & Pfeffer, 1975; Hannan & Freeman, 1977; Meyer & Rowan, 1977). Organizations need social acceptability (Scott et al. 2000:237) and seek congruence between the values that they pursue and that of the wider society (Parsons, 1960). Hence, organizations need to be consistent with the established cognitive structures of the society to gain acceptance and achieve a "taken for granted" status in order to survive (Aldrich & Fiol, 1994; Suchman, 1995). Foreign subsidiaries are located in the host country institutional environment and are faced with the pressure to achieve legitimacy with the regulative, normative and cultural-cognitive systems of the local institutional environment (Kostova & Roth, 2002). When confronted with internal organizational pressure from their parent company to adopt a practice, foreign subsidiaries' may adopt the practices to a varying degree because the subsidiaries' responses to the parent's initiative are influenced by their interpretations and perceptions of the practices. Hence, a major challenge for foreign subsidiaries in the adoption of parent's practices is the local institutional context (Kostova & Roth, 2002).

**Difference in Institutional Contexts:** The foreign subsidiary is not an independent entity; hence, if a practice is mandated by the parent, the subsidiary is obligated to comply. In other words, coercive pressures exerted by the parent company force the subsidiary to conform to the practices (Kostova & Roth, 2002). At the same time the foreign subsidiary resides in a host country that has a different institutional context and may even be comprised of diverse ethnic groups, each with their own set of cultural rules. The transfer of practices is made complex due to differentiation in interpretation of the
meaning of the practices and standards of expected behaviors. As a result, the subsidiary may implement the practices partially, adopting those components that they feel are necessary to meet the requirements of the parent company, or in extreme cases they may not even consider complying with the parent's request because they do not believe in the parent's motives (Kostova, 1999).

**Isomorphism:** Another major challenge faced by subsidiaries in the adoption of foreign practices is isomorphism, a strong environmental pressure faced by subsidiaries of MNCs (Rosenweig & Singh, 1991). Organizations face pressures to adapt to local institutional demands and therefore tend to become isomorphic with the local environment (DiMaggio & Powell, 1983). Pressure for isomorphism may be one of the strongest environmental pressures faced by organizations (DiMaggio & Powell, 1983) that affect the adoption of practices at the subsidiaries. Isomorphism is the homogeneity of organizational forms and practices with the external environment (DiMaggio & Powell, 1983). It is described as constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions (Hawley, 1968). Organizations therefore are affected by "common understandings of what is appropriate and, fundamentally, meaningful behaviour" (Zucker, 1983; 105). Quite apart from seeking maximum efficiency, organizations may seek to adopt structures and processes that reflect the institutional environment, defined as a "set of highly established and culturally sanctioned action patterns and expectations" (Lincoln, Hanada, & McBride, 1986: 340). Environmental isomorphism may come about through coercive, mimetic, or normative pressures (DiMaggio & Powell, 1983). Coercive isomorphism stems from the political
influence and the problem of legitimacy; mimetic isomorphism results from standard
responses to uncertainty; and normative isomorphism is associated with
professionalization. Coercive isomorphism results from both formal and informal
pressures exerted on organizations by other organizations upon which they are dependent
and by cultural expectations in the society within which organizations function. Such
pressures may be felt as force, as persuasion, or as invitations to join in collusion, for
example government mandates. Normative isomorphism stems primarily from
professionalization, which is the collective struggle of members of an occupation to
define the conditions and methods of their work. The various kinds of professionals
within the organization may differ from one another; however they tend to exhibit much
similarity to their professional counterparts in other organizations, as well as in the
organizational field. For example, managers at the subsidiaries undergo anticipatory
socialization with other organizations in the wider environment through common beliefs,
values and norms.

**Host Country Institution:** The empirical study in this thesis is concerned with the
foreign subsidiaries of a U.K. MNC located in Malaysia, thus it is important to consider
literature on the host country institutional context. This section focuses on the dominant
multiethnic cultural values and belief systems of the local institution, or coercive external
pressures that may influence the transfer and adoption of practices at the Malaysian
subsidiaries.
Cultural Distance: Cultural distance (Hofstede, 1980) affects the transfer of parent’s practices to the foreign subsidiaries (Kostova & Roth, 2002). Hofstede (1980) found that national cultures vary significantly along four indices of work related values: individualism/collectivism, uncertainty avoidance, power distance and masculinity/feminity. By depicting nations on the basis of their scores on these dimensions, they were characterized as relatively similar to, or distant from, each other. The United States, Canada, and the United Kingdom, for example, are relatively close in cultural distance, but they are relatively more distant from many Asian and Latin American countries. The transfer of practices from the U.K. to Asian countries may face strong challenges due to the cultural distance (Kostova & Roth, 2002). The greater the difference between the institutional profiles of the home country of the practice and the recipient country, the greater the likelihood will be that there will be a misfit between the transferred practice and the recipient environment, which, in turn, may result in difficulties even failure of the transfer. Transfers of practices between the United States and Canada, for example perhaps will be easier to accomplish than transfers between the United States and Malaysia, owing to the regulatory, cognitive, normative similarities or differences between these countries (Kostova, 1999).

National Culture: Studies have confirmed that the Malaysian ethnic groups combined were indexed as collectivist society (Hofstede, 1980; 1984; Schwartz 1994, Triandis, 1995). In a collectivist society, the approval and acceptance of the ‘self’ are highly dependent on the perceptions of others (M. L. Storz, 1999). Hence, Malaysian managers tend to emphasize more on compassion, close cooperation and the avoidance of conflicts
In the organizational context, these behaviours may affect performance management in the organization, since managers are reluctant to give direct feedback to employees during appraisals. Malaysian managers show low uncertainty avoidance (Hofstede 1980, M.L. Storz, 1999). There is a tendency for individuals to solve problems not only through their intellect, or relying primarily on the logico-deductive process, but also the use of intuitions or feelings and seeking recourse to ‘higher’ authorities be it cosmic forces or other spiritual entities (M.L. Storz, 1999). Malaysia’s rating of high uncertainty avoidance indicates that Malaysian managers have greater tendency to work with nature, using more of the heart and feelings than the rational logico-deductive process. In the organizational context, it implies that managers tend to be slow in decision making and more fluid in their approach to problem solving. The Malaysian notion of ‘temporality’ or time, and how people construct its reality also have implications for the characteristics of the Malaysian managers (M. L. Storz, 1999). Time is seen as subjective, and its reality is not merely captured in terms of ‘clock time’ but also in terms of ‘rubber time’ which is a term used to describe the common practice of (un)punctuality. Hence, managers relate to time as changeable and stretchable, which implies that punctuality and project deadlines are moveable. These characteristics suggest that implementation of the practices may take longer time to complete than initially expected.
Multi-Ethnic Cultural Values

Several social scientists have studied different facets of Malaysian society and culture, primarily in the area of cross-cultural management issues (e.g. Dahlan, 1991; Hofstede, 1991; Sendut et al., 1991; Westwood, 1991, Storz, 1999), which looked at the common Malaysian values system, but there is lack of study on the differentiation of specific multi-ethnic value systems and its effects on work behaviours in Malaysian organizations. The main thrust of this argument concerns the diversities of the Malaysian ethnic cultural values, rather than on their commonalities, because of their origins and diverse belief systems. These diversities may have implications in the transfer and adoption of practices at the Malaysian subsidiaries. Individuals are governed by their cultural values, which are described as shared beliefs, customs, and meanings (Hofstede, 1980) that have been practiced for many generations in the society they belong to, and which have been conditioned via socialization (Parsons, 1951). There are two dominant ethnic cultural value systems in Malaysia based on the strength of the country’s population – Malay and Chinese cultural values. The Malay value system is encapsulated in the Budi complex (Tham, 1971; Dahlan, 1991), and the Chinese value system is embodied in what is termed as Confucianism (M.L. Storz, 1999). In the context of Malaysian organizations, the mainly Chinese managers are governed by Confucian values, while the mainly Malay employees are governed by the Budi values. Although the Malay and Chinese values share some similarities (Storz, 1999), however, there are also strong differences that have caused tensions between managers and employees in local organizations.
Malay Value System and Implications to Practice Behaviors

Islam permeates every facet of life of the Malays, especially in the realm of values and behaviours (Mastor, Jin, & Cooper, 2000). Islam and Malay cultural traditions coexist as powerful influences in the Malay contemporary life in which both are deeply concerned with promoting correct behaviour in all facets of life (Goddard, 2001). The Malay culture is guided by the ‘Budi’ complex that represents the ethical systems and the very essence of social relationship in the Malay society (Tham 1971). For the Malays ‘Budi’ is a way of orienting to the world, the mental insofar as it relates to the epistemological of how one knows; and the emotional of how one feels and how one manages one’s emotions in relation to other facets of one’s psychological life (Dahlan, 1991). The ‘Budi’ complex is composed of virtuous qualities such as ‘murah hati’ (generosity), ‘hormat’ (respect), ‘ikhlas’ (sincerity), ‘mulia’ (righteousness), ‘timbang rasa’ (discretion), ‘malu’ (feelings of shame at collective and individual level) which are typified by refinement, politeness and consideration for others (Dahlan, 1991). One of the prominent characteristics of Malays is not to say anything that may hurt others’ feelings (sensitivity for others) and are thus prone not to criticize others openly (lack of openness), which is part of the Islamic ethical teaching (Mastor et al., 2000). Malays are usually portrayed as polite (symbolizing ‘respect’), self-effacing (symbolizing ‘humility’), avoiding open conflict wherever possible (Crouch 1996). The more important Malay cultural ideals are being considerate and protective of other people’s feelings, showing respect and deference to parents, leaders, and old people, the cultivation of mutual kindness and gentleness, and being well mannered and well spoken (Goddard, 2001). In the organizational context,
these characteristics have several implications on practice behaviours. For example, the high importance placed on respect for the bosses may create large gaps in boss/subordinate relationships, which may affect communication relating to the practices. The lack of ‘openness’ may prevent managers from being aware of the actual problems that are confronting the practices, since employees may avoid giving direct feedbacks on the actual issues at the shop floor. Another aspect is that employees tend to ‘protect’ their colleagues if they are found to break safety rules because of high ‘consideration’ or sympathy for others. Workers tend to ‘cover up’ their colleagues who ignore the rules related to the practices, affecting efficiencies. Refer table 2.1

Table 2.1 – Malay ‘Budi’ Values and Implications to Practices

<table>
<thead>
<tr>
<th>‘Budi’ Values (Malays)</th>
<th>Implications to Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low ‘openness’</td>
<td>Avoid direct communications with managers. Feedbacks normally through others e.g. colleagues, or behind the managers.</td>
</tr>
<tr>
<td>High consideration for others</td>
<td>Tend to cover up colleagues for non conformance</td>
</tr>
<tr>
<td>High respect for bosses</td>
<td>Employees tend to agree with the managers.</td>
</tr>
<tr>
<td>High sense of ‘shame’ (malu)</td>
<td>Conflict avoidance. Sensitive to the feelings of others</td>
</tr>
</tbody>
</table>
Chinese Value System and Implications on Practices

The Confucianism system of ethics had for centuries influenced the thinking and behaviours of the Chinese in Malaysia (Storz, 1999). A significant aspect of Confucian teachings is sensitivity to hierarchy and the maintenance of social order (Lo 1997). In the organizational context, the strong emphasis for hierarchy indicates high power distances (Hofstede, 1981). This implies managers tend to take on a more dominant role and an autocratic type of leadership style. With the workers’ lack of openness and feedbacks, this may have serious effects on the decision making process relating to the practices, affecting their efficiencies. Importance is placed on conformity and acceptance of social roles, which set forth principles that define appropriate individual behaviours in relation to others in a social hierarchy (Berling, 1982). High priority is placed on productivity and results, and high control on work behaviours (K.F. Pun, K.S. Chin and H. Lau, 2000). They imply that managers tend to give higher priority on productivity and the attainment of results, but less on the practices. ‘Wealth’ is also an important value of the Chinese, which is linked to the Confucian principle of quanxi, or networking (Luo, 1997), thus wealth and profit consideration go hand in hand with business activities. Confucianism perceives relationship as highly important involving long term relationship (Arias, 1998; Luo, 1997). Thus, the concept of quanxi or networking can be viewed as a business advantage in the achievement of external legitimacy within the organizational field, particularly with the government agencies, other business communities and the public at large, which could provide the companies with monopolistic advantage (Styles & Ambler, 2003). Furthermore, it is typical for Chinese managed companies to be thrifty
and apply tight control on budgets to focus on low cost inputs in manufacturing (Carney, 1998). In Chinese culture, thriftiness is seen as a virtue because it encouraged people to save for 'rainy days' and provide security for the future generations (Pun, Chin & Lau, 2000). Thus in the context of practice implementation, the differences in normative and cultural cognitive systems between the mainly Chinese managers and mainly Malay employees (Tables 1 and 2) may lead to tensions affecting implementation of the practices.

Table 2.2 - Chinese 'Confucian' Values and Implications to Practices

<table>
<thead>
<tr>
<th>'Confucian' Values (Chinese)</th>
<th>Implications to Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Distance Culture</td>
<td>Authoritative. Low communication with workers.</td>
</tr>
<tr>
<td>High Concerns for Productivity</td>
<td>High priority on performance and results</td>
</tr>
<tr>
<td>High Concerns for Expenses (Thriftiness)</td>
<td>High concerns for costs</td>
</tr>
<tr>
<td>High Concerns for 'Wealth'</td>
<td>High priority for business success</td>
</tr>
</tbody>
</table>
Summary

Employees are carriers of the institutional environment (Zilber, 2002); they carry with them specific mindsets which have been programmed by the values and beliefs of the society in which they belong (Hofstede, 1980). When the parent company imposes a set of practices to the foreign subsidiaries, employees will interpret the practices based on the local institutional context (Kostova & Roth, 2002). Thus, the process of transferring the practice to foreign subsidiaries does not occur in a social vacuum, rather it is contextually embedded (e.g., Capelli & Sherer, 1991; Granovetter, 1992; Mowday & Sutton, 1993). Some countries provide for more favourable environments in the transfer of certain practices while others present a number of difficulties and challenges (Kostova, 1999). This is because countries differ in their institutional characteristics and the organizational practices that are transferred across borders may not "fit" with the institutional environment of the recipient country; which in turn may be an impediment to the transfer success. For example, transfers of practices between the United Kingdom and United States will be easier to accomplish than transfers between the United Kingdom and South East Asian countries because of the differences in national culture (Hofstede, 1980). Besides, practices that originate from the Western parent company may not be consistent with the national cultural environment of the foreign subsidiaries into which they are transferred, and may even be in conflict with them (Kostova & Roth, 2002). This is because organizational practices are "people" and "technology" focused, therefore they are "meaning and value" based, as well as "technology" based. However, most local companies have achieved isomorphism with the local institutional environment
(DiMaggio & Powell, 1983), thus employees at the foreign subsidiaries perceive and interpret the practices based on local institutional context (Kostova and Roth, 2002). Besides, the use of coercive pressures to force subsidiaries to adopt the practices may result in the 'corruption' of practices, whereby the practices are adapted to serve different purposes than originally intended (Lozeau et al., 2002). Similarly the foreign subsidiaries may implement the practices superficially, retaining mostly only a ritual function (Meyer and Rowan, 1977), and may even disapprove of the practices (Kostova, 1999). Thus, the success of the transfer of organizational practices is determined by the transferability of meanings and values, in addition to the transferability of knowledge ((Kostova, 1999: 4). In other words, the recipient unit (foreign subsidiaries) should achieve a state of internalization, in which the employees at the recipient unit attach symbolic meaning to the practices – they “infuse it with value” (Selznick, 1957). A practice becomes infused with value when it is accepted and approved by employees, when the employees see the value of using this practice, and when the practice becomes part of the employees' organizational identity (Kostova, 1999).

The next chapter (3) discusses the research design and methodology to examine the barriers in the transfer and adoption of parent’s practices at the subsidiaries, within the context of dual institutional pressures.
CHAPTER 3 - RESEARCH DESIGN (PART 1)

Introduction

This chapter discusses the research design. The chapter is organized into two Parts. Part 1 describes: (1) Hypothesis Development (2) Research Strategy (3) Development of Measurement Instrument. Part 2 describes (1) Quantitative Methods (2) Qualitative Methods

Hypothesis Development

A set of hypothesis was developed to address the research question. The hypothesis is part of a broader study in which much of the research is exploratory in nature, rather than testing or confirming the hypothesis. It afforded the opportunity to look for patterns for a more rigorous investigation in the next stage of analysis. The hypothesis was developed based on broad institutional theories, in which several concepts were applied to narrow down the investigation.

The motivation of the transfer coalition to engage in the process of transfer is affected by the quality of the relationship with the parent company (Kostova, 1999). As suggested in network theory, individual actions can be explained partly by the relational embeddedness (e.g., Granovetter, 1992). Relational embeddedness also reflects the
temporal dimension in contextual influences, that is, the effects of past relationships between individuals on their current actions (Mow-day & Sutton, 1993). Identification with the parent organization is reflected by the degree to which subsidiary employees experience a state of attachment to the parent (Kostova, 2002). Thus, employees in newly acquired subsidiaries who have a short history of relationship with the parent company may not have achieved identification with the parent and may find it difficult to accept the safety goals of the organization. The new subsidiaries will face more challenges in diffusing the practices, because the actors involved do not perceive themselves as similar (Strang & Meyer, 1993) to the parent company. Thus:

Hypothesis 1: There will be less implementation of safety practices in the most recently acquired subsidiaries than in the less recently acquired subsidiary.

Particularly important to this research is the concept for isomorphism (DiMaggio & Powell, 1983), which is described as the homogeneity of behaviours with the same set of environmental conditions (Hawley, 1968). The employees' ability to understand the practices, their interpretations on the values of the practice is largely influenced by their cognitions and beliefs which are shaped by the external institutional environment (Kostova & Roth, 1999). The motivation to engage in the transfer process, especially when the direct value of the knowledge that is being transferred is difficult to understand will make transfer of the practices more difficult. They will affect the motivation of employees to engage actively in the transfer process, affecting their commitment to the parents, identity with them, and trust in the parent company. As a result, members will not be able to engage actively in the transfer of the practices. The lack of trust for the
parent company will likely increase the uncertainty regarding the value of the practices, as well as the motives behind the transfer. Therefore, members of the newly acquired subsidiaries would identify less with the parent company and are unlikely to share the values and beliefs of the company which transfer the practices. Thus:

_Hypothesis 2: There will be less internalization of safety values among employees of the most recently acquired subsidiaries than in the less recently acquired subsidiary._

The process of transfer involves the diffusion of a set of rules and the transmission or creation of an "infused-with-value" meaning of these rules among the employees of the recipient unit (Kostova, 1999). The adoption of the formal rules describing the practice over a period of time will become internalized at the recipient unit—that is, the employees at the recipient unit attach to the practice a symbolic meaning and value, achieving a state of institutionalization. Institutionalization is conceptualized at two levels: implementation and internalization. Implementation is the degree to which the recipient unit follows the formal rules implied by the practice; which is reflected in certain objective behaviors and actions at the recipient unit. _Internalization_ is that state in which the employees at the recipient unit attach symbolic meaning to the practice—they "infuse it with value" (Selznick, 1957). Higher levels of implementation of a particular practice will be associated with higher levels of its internalization. Therefore, in an institutional theory framework, implementation is a necessary condition for internalization. Hence, the more a particular practice is used in an organization, the more likely it will be that employees will take it for granted and will attach a symbolic meaning and value to it. Thus:
Hypothesis 3: In all groups there will be greater implementation and internalization of safety practices now than 3 years ago.

Research Strategy

Case Study approach: The research investigates the factors affecting the transfer and adoption of the U.K. parent's occupational safety and health (OSH) practices at its Malaysian subsidiaries to answer the research question: What are barriers that impede the successful transfer and adoption of the practices at the foreign subsidiaries?

In finding the answers to the research question, the research adopts a case study approach that is exploratory in nature. The case study research looks for patterns, ideas or hypothesis, rather than testing or confirming a hypothesis (Jill & Roger Hussey, 1997). Case study research investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident (Yin, 2002). The case study research approach has been a common strategy in psychology, sociology, political science, social work (Gilgun, 1994) and business (Ghauri & Gronhaug, 2002). In all these situations the distinctive need for case studies arises out of the desire to understand complex social phenomena. The case study method allows researchers to retain the holistic and meaningful characteristics of real-life events such as organizational and managerial processes (Yin, 2002). It is the preferred approach when examining contemporary events where key evidence concerns direct observation of the events being studied and interviews of the persons involved. In addition, it deals with a variety of other evidences such as documents and artefacts. It is the preferred approach
when examining contemporary events where key evidence concerns direct observation of the events being studied and interviews of the persons involved. A major strength of a case study data collection is the opportunity to combine many different sources of evidence. The use of multiple sources of evidences in case studies allows the researcher to address a broader range of historical, attitudinal and behavioral issues. The most important advantage in using multiple sources of evidence is the development of converging lines of inquiry, a process of triangulation. Hence, any finding or conclusion in a case study is likely to be much more convincing and accurate if it is based on several different sources of information, following a corroboratory mode (Yin, 2003).

**Mixed Method Approach**

The paradigm to address methodological issues in the study applies a combination of positivistic and phenomenological approach. The inductive results from a qualitative approach serve as inputs to the deductive goals of a quantitative approach, and vice versa. Rather than each dismissing the others' work as based on wholly incompatible assumptions the goal is to search for useful points of connection. In this case study, both quantitative and qualitative methods were applied to answer the research questions. The method of analysis comprised multiple sources of evidence, or triangulation to guide the design, data collection techniques, and specific approaches of data analysis. Applying purely quantitative methods to study the cross national transfer of management practices may mask the detailed processes. In surveys for example, one can try to deal with phenomenon and context, but their ability to investigate the context is extremely limited.
Since phenomenon and context are not always distinguishable in real-life situations, data collection and data analysis strategies become an important part of the research design. Quantitative and qualitative techniques are a comprehensive research strategy since the use of more than one method strengthens the validation process and enhances the validity of the results (Yin, 2002). It is argued in social science the use of more than one method is important in the validation process (Campbell & Fiske, 1959) because it enhances the validity of the results (Bouchard, 1976:268). This approach is important in helping situations in which the intervention being evaluated has no clear, single set of outcomes. It also describes and evaluates the situation within a real-life context in which it occurred. Thus, the aim of the mixed method research is to gauge a range of perceptions that are quantitatively represented and qualitatively described. The quantitative method generates a comprehensive picture on the adoption of the western parent's practices at the Malaysian subsidiaries. The qualitative method identifies rich patterns of behaviours that are critical point to substantiate the quantitative findings. The qualitative method benefits from the perceptions drawn from personal experiences and firsthand observation of the situation, which is important for validation. The combination of quantitative and qualitative methods, or mixed method approach, is also described as convergent validation or, what has been called “triangulation” (Webb et al, 1966). Triangulation is broadly defined by Denzin, (1978: 291) as “the combination of methodologies in the study of the same phenomenon.” The use of triangulation captures a more complete, holistic, and contextual portrayal of the phenomena under study. Particularly in identifying the phenomena, the use of multiple techniques may uncover some unique variances which otherwise may have been neglected by single method. The qualitative
method, in particular, can play an especially prominent role by eliciting data and suggesting conclusions to which other methods would be blind. In this context, triangulation is used not only to examine the same phenomenon from multiple perspectives, but also to enrich our understanding by allowing for new or deeper dimensions to emerge. The effectiveness of triangulation rests on the premise that the weaknesses in each single method will be compensated by the counter-balancing strengths of another (Jick, 1979).

**Potential Issues in Applying Mixed Methods**

As a strategy of social research, combining quantitative and qualitative methods help to validate the conclusions. However, the case study as a distinctive form of empirical enquiry has potential weaknesses which may influence the direction of the findings. For example, during the interpretation of the qualitative interviews, the researcher may possess biased views on the findings. In this study, the researcher who is Malaysian may be biased when interpreting the qualitative data particularly if it is relating to local cultural issues; finding it difficult to 'see the water in which she swims'. However, using a combination of quantitative and qualitative techniques and discussing the results with supervisors from a western cultural background can help to minimize biasness by challenging some of the interpretations of the qualitative data. Another potential weakness of a case study approach is that the study may take longer to complete and result in massive, unreadable documents. The issue of timeliness may affect the case study since combining quantitative and qualitative analyses take a longer time to
complete. Analyzing and interpreting both the quantitative and qualitative components at the same time involved double time and effort compared to a single method. The whole process of collecting the data, integrating, analysing, interpreting and writing takes longer. Typically, analysis and interpretation of the survey component is faster to conduct compared to the qualitative, resulting in longer time to complete the thesis. Pressure may build up to complete the research resulting in less time for review and corrections. In the Malaysian culture, the issue of 'rubber time', or stretching deadlines is the norm, thus the researcher may be faced with the issue of deadlines, and will take longer time to complete the case study due to subjective perception of time. However, the delays in completion of thesis can be minimized through discipline and close monitoring of the research schedule. Certainly a western supervisor would help to ensure strict deadlines due to objectivity of time to make sure the thesis is completed within the deadlines. Multiple use of evidence in a case study imposes a great burden on the researcher since the collection of data from multiple sources is more expensive than if data were only collected from a single source (Denzin, 1978, p.61). Extra expenses will be required such as higher cost involving the data collection, more training required, and use of multiple softwares e.g. SPSS and QSR. Budgetary control is important to ensure that research expenses do not reach above limits. Another issue involving mixed methods of analysis is that the investigator needs to know how to carry out the full variety of data collection techniques (Yin, 2003). For example, in this case study the researcher had to collect and analyze documentary evidence on the history of the organization under investigation, retrieve and analyze archival records on the topic under investigation; design a survey instrument, conduct quantitative survey research, as well as conduct interviews and apply qualitative analysis techniques. The
requirement for mastering multiple data collection techniques involves training. The researcher should master skills in both quantitative and qualitative methods since they require different specializations. Familiarity in the use of quantitative and qualitative softwares is important to process the data. Typically researchers tend to specialize in either a predominantly quantitative or qualitative tradition, which may lead to unequal emphasis of the methods being used. Researchers also tend to have greater faith in one rather than the other, usually because of their methodological preference. In this context, it is important that the researcher put equal emphasis on both the quantitative and qualitative findings to ensure validity of results. Several commentaries suggest that mixed methods researchers do not always bring their findings together and that the quantitative and qualitative components are treated as separate domains. E.g. Greene, Caracelli, and Graham, (1989) identified this issue as a problem area. Similarly, Niglas (2004), concluded that “substantial integration of qualitative and quantitative data during the analysis was exercised very rarely” (p.98). These findings suggest that in a mixed method research the findings are not always integrated, and that the quantitative and qualitative components may be treated as separate domains. Thus there is a tendency for researchers to think of quantitative and qualitative research as separate domains inhibiting mixed method researchers. There is also a danger that some researchers may report just the qualitative or the quantitative data, or to give attention to one more than the other. Another issue is presenting the research in parallel which means that there is more or less no integration at all. There is also the question of whether the components of a mixed method investigation are related to each other or whether they are either totally or largely independent of each other (Alan Bryman, 2007). The key issue is whether in a mixed
methods project, the end product is more than the sum of the individual quantitative and qualitative parts. The issue of not linking properly the quantitative and qualitative analysis can be reduced by getting other people e.g. supervisors, fellow researchers and colleagues to provide constant feedback and comment on integration of data.

**Data Collection Process**

This section discusses the key activities involved in collecting the data focusing on two aspects: planning the data collection and the actual fieldwork.

**Planning the Data Collection**

The first stage of the data gathering process involves planning, which was done in advance of the fieldwork. Planning is important to the study since it helped to minimize obstacles during the data collection process that could affect the fieldwork. Planning the data collection involved several processes. First, the preliminary preparation. This involves sourcing for important information about the company particularly about the OSH policies and practices. The preliminary preparation includes collecting important information from the I.C.I. U.K official website to search for documentary evidences about the OSH practices. This includes finding information about the history of the organization, the company's businesses, mergers and acquisitions exercises, company's vision, corporate values, codes of ethics, corporate governance, policies, regulations and major programs. Second, the pilot study. The objective is to help refine the data
collection plans with respect to both the content of the data and the procedures to be followed. The pilot study helped to develop the lines of questions, and provide some conceptual clarification for the research design as well. In general, convenience and easiness for access are important for the pilot study. The pilot study is an important strategy for the development of a relationship between the researcher and the subsidiaries and to ensure success in the data collection process. The inquiry for the pilot case was much broader and less focused than the ultimate data collection plan; however it had provided considerable insights into the basic issues being studied. The information from the pilot study is used in parallel with the ongoing review of relevant literature so that the final research design will be developed based on both the prevailing theories and by a fresh set of empirical observations. Third, is the development of measurement instrument. After completion of the pilot study, the next stage is to develop the measurement instrument for the quantitative survey. The pilot study provides useful information about the relevant field questions and the logistics of the field inquiry. The information from the survey helps to ensure that the actual study reflects significant theoretical and policy issues as well as questions relevant to the case study. Fourth, is the field work. This involves going to the sites of each subsidiary to administer the survey questionnaires, and to conduct the qualitative interviews with target groups. The administration of questionnaires and qualitative interviews requires advance planning to achieve maximum participation. This includes confirmation of the meeting schedules and venues for administering the survey questionnaires as well as deciding on the most effective techniques to conduct the qualitative interviews. Proper administration of survey questionnaires helps to ensure maximum turnout from participants and reduce errors in
the questionnaires. Effective interview techniques are important since they allow for rich information that addresses the research questions. Fifth, is the supervision. Schedules for meetings with the supervisors are important part of the planning. Throughout the data collection, frequent discussions should be held with the supervisors and their feedbacks are important to address issues relating to the data collection, and to ensure that the researcher remained focus on the research questions. Most important, frequent discussions with the supervisors will help the researcher to view the situation objectively from the perspective of an outsider rather than only as a Malaysian to prevent biased interpretation. The final stage of data collection is the fieldwork, which involved going to the physical location and collecting the data from the target group. The process of data gathering commenced after the initial planning stage. A major concern at this stage was to get the Malaysian subsidiaries to participate in the research. At this point, a phone call was made to the Managing Director (MD) of ICI Holding Malaysia to seek permission to collect the data and participate in the study. The MD was very cooperative and agreed immediately to my request for permission to carry out the studies at the subsidiaries. He agreed to introduce the researcher to the General Managers of Uniqema, National Starch and Esterol to facilitate the data gathering process. The Human Resource Managers of the respective subsidiaries were assigned to coordinate the interview schedules and liaise with the target groups on the administration of survey questionnaires during the pilot study and fieldwork (Appendix 3 Figure 1). I was very grateful to the top management of ICI Malaysia for their cooperation in providing access for my data collection. My good fortune was partly due to my relationship with the Managing Director of ICI Holdings Malaysia who was my ex-colleague. We had known each other since I was
employed as the Human Resource Manager for ICI Paints from 1972 to 1985. The MD had remained loyal to the company despite the series of restructuring exercises that took place in the 90s. His loyalty and dedication to the company had catapulted him to the number one position with the ICI Malaysia Company. Things would be different if contacts were made without knowing some key people in the organization, particularly in Malaysia where relationship and networking with key people play a very important role in the society. Contacting the company without having the contacts means that the process of gaining entrance into the organization for data collection will be extremely slow, with the possibility one may not get the responses either verbally or in writing.

Fieldwork

The fieldwork started with a pilot study which was carried out for six weeks from 15th January, 2003 to 30th February, 2003. The field study looked at the implementation of the health and safety practices at the ICI subsidiaries as well as in the external environment. Interviews were held with key personnel involved in the implementation of OSH practices at the ICI corporate office, subsidiaries, wholesalers and suppliers. The interviews were to get first hand information on the transfer of OSH practices to the subsidiaries, the implementation process and safety behaviors at the manufacturing sites. Interviews were also held with key personnel from the Regulatory body i.e. the Department of Occupational Safety and Health. (DOSH), training institutions which provide safety training and certification programs i.e. National Institute of Occupational Safety and Health (NIOSH), Malaysian Institute of Occupational Safety and Health
(MSOSH and Malaysian Institute of Occupational Safety and Health (MSOSH) and the employees' trade union i.e. the Malaysian Trade Union Congress (MTUC) which has a direct interest in the safety of employees. The interviews were mostly unstructured to allow the rich flow of information from respondents and explore the situation from different angles. During the pilot study I also had the opportunity to attend a conference on 'Occupational Safety and Health Practices for Asia Pacific Region' in Kuala Lumpur, which was organized by the Malaysian Institute of Occupational Safety and Health (MSOSH). The conference gave a wider view on the issues confronting Asia Pacific countries relating to the OSH practices. After completion of the pilot study, the findings were discussed with my supervisors. Eventually, a measurement instrument for the quantitative questionnaires and an interview approach were developed to prepare for the final stage of data collection, the fieldwork. The design of measurement instrument for the next stage of fieldwork is discussed in the later part of this section. The duration of the fieldwork was 10 weeks, which started from mid June to the end of August 2003. The final schedule and venues for the data gathering were finalized before leaving for Kuala Lumpur. The fieldwork involved administering of survey questionnaires, qualitative interviews and direct observation of the OSH practices at the manufacturing sites. Besides conducting surveys for the quantitative method and interviewing employees for the qualitative method, the field work also includes visiting the production plants, observing the physical plan of the work areas, observing employees at work, and the technology used in the manufacturing plants. The physical or cultural artefacts i.e. the building and technology at the manufacturing sites is another source of evidence during the data collection.
Population and Sampling

The target population represents the population of the selected units, i.e. the organizations (subsidiaries), groups and individuals based on the specific purpose that are associated with answering the research study’s questions. The target groups are expected to yield especially valuable information to address the research questions.

Organization

The ICI Malaysian subsidiaries represent the particular background and setting that are associated with the investigation. They were deliberately selected for the important information they can provide to address the research questions. The case study involved the Malaysian subsidiaries of a U.K. multinational corporation (MNC), Imperial Chemical Industries (ICI), UK referred to as the ‘parent company’. The Malaysian ICI companies are referred to as the ‘foreign subsidiaries’. They comprised of: ICI Paints, Uniqema, National Starch and Esterol. For the purpose of analysis, the subsidiaries are categorized as ‘old’ and ‘new’ subsidiaries based on their historical association with the parent company. The old subsidiary comprised of ICI Paints, a company that has long been associated with the U.K. parent since its inception. The new subsidiaries comprised of Uniqema, National, Starch and Esterol that have been newly acquired by ICI UK PLC, and were new to the ICI OSH practices. The parent company, is a U.K. multinational corporation (MNC), Imperial Chemical Industries (ICI), PLC U.K was established in 1926. Over the years went through several restructuring exercises in line with its business
directions. In 1997 a major exercise led to the acquisition of Unilever's Speciality Chemicals division. The company comprised of 4 major businesses that spanned across the globe including Malaysia:

(i) Decorative and packaging coatings
(ii) Starch and synthetic polymers
(iii) Oleochemicals and surfactants
(iv) Flavors and fragrances

The Malaysian subsidiaries comprised of four businesses: ICI Paints (decorative and packaging coatings); National Starch (Starch and synthetic polymers), Uniqema (Oleochemicals and surfactants and Esterol (Flavors and fragrances). ICI Malaysia Holdings, a company which is fully owned by ICI PLC U.K. has 60% ownership of the Malaysian subsidiaries and Permodalan Nasional Berhad (PNB) the Malaysian government's investment arm owns 40% (Figure 3.1). The subsidiaries report direct to the ICI Asia Business Regional head office in Singapore. For the purpose of analysis, the Malaysian subsidiaries have been categorized as 'old' and 'new' subsidiaries based on their historical link with the parent company.
The old subsidiary ICI Paints Malaysia was established in 1956 as a business division of ICI U.K. Historically, ICI Paints had been associated with the parent company since its inception. ICI Paints is a coatings company that is involved in the manufacturing and sales of coatings products for the Malaysian domestic market. Its leading brands: Dulux, Maxilite & Glidden dominate 40.0% of the market. It is the biggest Decorative and Packing coating company in Asia (outside Japan) with an annual turnover of more than RM 180 million (£32 million). The subsidiary’s manufacturing site is based in Nilai, Negeri Sembilan about 80 miles from Kuala Lumpur, capital of Malaysia. The company employed a total of 218 employees at its manufacturing site.

The new subsidiaries comprised of the following companies:
Uniqema: Previously known as ‘Unichema’, the company was part of the Unilever group. It was merged with ICI Surfactants, a subsidiary of the ICI group of companies in 1997. Uniqema focuses on the lubricant business. The company manufactures and markets specialty products such as oleochemicals and surfactants. It is located in Klang, about 60 miles from Kuala Lumpur and employed more than 100 employees at its manufacturing site.

National Starch: The Company which was originally known as Adhesive Malaysia was established as a local company in Kuala Lumpur in 1975. In 1995, Adhesive Malaysia was bought over by National Starch Chemical U.S. which was owned by Unilever. In 1997 Unilever was bought over by ICI UK, and National Starch became one of the ICI companies. National Starch is located at its manufacturing site in Shah Alam, which is about 40 miles from the city of Kuala Lumpur. National Starch Malaysia reports to the Asia Pacific regional office in Singapore, who reports directly to the headquarters in the U.S. The company is involved in the manufacturing and marketing of specialty starch and synthetic polymers. It employs 232 employees at its manufacturing site.

Esterol: The company was established in 1995 as part of a joint venture with Eastman Chemicals, Quest International (MNC companies), and a local partner Kuala Lumpur Kepong Bhd. In 1996, Eastman Chemical decided to divest its shareholding to Quest International a subsidiary of Unilevers. Subsequently in 1997 Quest was acquired by ICI and Esterol became one of the ICI Companies. The company is engaged in the production of food emulsifiers mainly for the export market. It employs a total of 71
employees. The plant was built at the Bukit Raja site in Shah Alam (formerly under Klang district) in 1995.

**Target Groups**

The sample population involves “specific subgroups (strata) of a population, in a random manner where the probability of inclusion for every member of the population is determinable” (Tashakkori & Teddlie, 2003a, p. 713). The case study examines safety practices of two groups of employees: Managerial and Worker groups. Respondents were chosen for their direct involvement in implementing the practices, either through enforcement (e.g. managers) or compliance (e.g. supervisors, workers). The criteria for selecting employees to participate in the survey questionnaires and qualitative interviews were based on their direct involvement in implementing the practices. This refers to employees whose key responsibilities include enforcing (e.g. managers, executives) as well as compliance (e.g. supervisors, general workers) to the safety rules. For the purpose of performance measurement, safety is one of their key result areas which were measured against their work performance. Each employee was given a set of safety goals to achieve annually, which are measured against their performance. They were mostly employed at the production plants, warehouse, maintenance and laboratories at the manufacturing sites. The managers’ group comprised of senior managers, middle level managers and executives. The workers’ group comprised of supervisors, laboratory technicians, maintenance workers, production operators and general workers. The total
number of people who participated in the survey was 185. Out of this, 73 were from the managerial group (Table 3.1), and 112 were from the employees group (Table 3.2).

Table 3.1: Managers' Group (Quantitative Survey)

<table>
<thead>
<tr>
<th>Companies</th>
<th>Malays</th>
<th>Chinese</th>
<th>Indians</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICI Paints</td>
<td>4</td>
<td>22</td>
<td>2</td>
<td>28</td>
</tr>
<tr>
<td>Uniqema</td>
<td>5</td>
<td>30</td>
<td>1</td>
<td>36</td>
</tr>
<tr>
<td>National Starch</td>
<td>-</td>
<td>4</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Esterol</td>
<td>3</td>
<td>2</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>12 (16%)</td>
<td>58 (80%)</td>
<td>3 (4%)</td>
<td>73</td>
</tr>
</tbody>
</table>

(Source: ICI Malaysia Subsidiaries)

Table 3.2 – Workers’ Group (Quantitative Survey)

<table>
<thead>
<tr>
<th>Job Category</th>
<th>Ethnic Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Malay</td>
<td>Chinese</td>
</tr>
<tr>
<td>Supervisor/Team Leader</td>
<td>17</td>
<td>2</td>
</tr>
<tr>
<td>Production Operator/Worker</td>
<td>56</td>
<td>1</td>
</tr>
<tr>
<td>Maintenance Operator/Worker</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Warehouse Operator/Worker</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>96</td>
<td>3</td>
</tr>
</tbody>
</table>

(Source: ICI Malaysia Subsidiaries)
Overall a total of 291 employees (managers and workers) participated in the study (Table 3.3). 159 participated in the survey questionnaires and 132 participated in the qualitative interviews (Table 3.4). Out of the total of 159 forms received for the survey questionnaires, 32 forms were spoilt with 127 valid (Table 3.5).

Table 3.3: Participants by Subsidiaries

<table>
<thead>
<tr>
<th>ICI Subsidiaries</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uniqema</td>
<td>87</td>
</tr>
<tr>
<td>National Starch</td>
<td>59</td>
</tr>
<tr>
<td>Esterol</td>
<td>71</td>
</tr>
<tr>
<td>ICI Paints</td>
<td>74</td>
</tr>
<tr>
<td>Total</td>
<td>291</td>
</tr>
</tbody>
</table>

Table 3.4: Breakdown of Respondents by Methods

<table>
<thead>
<tr>
<th>ICI Subsidiaries</th>
<th>Survey Questionnaires</th>
<th>Interviews</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uniqema</td>
<td>35</td>
<td>52</td>
<td>87</td>
</tr>
<tr>
<td>National Starch</td>
<td>32</td>
<td>27</td>
<td>59</td>
</tr>
<tr>
<td>Esterol</td>
<td>25</td>
<td>46</td>
<td>71</td>
</tr>
<tr>
<td>ICI Paints</td>
<td>67</td>
<td>7</td>
<td>74</td>
</tr>
<tr>
<td>Total</td>
<td>159</td>
<td>132</td>
<td>291</td>
</tr>
</tbody>
</table>
Table 3.5: Spoilt forms by Subsidiaries (Survey)

<table>
<thead>
<tr>
<th>ICI Subsidiaries</th>
<th>Questionnaires</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Filled</td>
</tr>
<tr>
<td>Uniqema</td>
<td>35</td>
</tr>
<tr>
<td>National Starch</td>
<td>32</td>
</tr>
<tr>
<td>Esterol</td>
<td>25</td>
</tr>
<tr>
<td>ICI Paints</td>
<td>67</td>
</tr>
<tr>
<td>Total</td>
<td>159</td>
</tr>
</tbody>
</table>

There were several reasons that have contributed to the spoilt forms. In ICI Paints the sensitive environment may have contributed to the spoilt forms judging from the higher number compared to other subsidiaries. Since the researcher was not there to administer the survey, the issue of clarity on some of the questionnaires may arise. However this issue had been minimized since the questionnaires had been translated from English to Malay. Another reason is that some employees may feel obligated to please their superiors by responding positively to the questionnaires since they were aware that the forms will have to be collected by their supervisors and managers, with the possibility that they may see the information. This issue had been reduced by ensuring participants the confidentiality of the questionnaires and collecting the forms personally from them. Some of the reasons for the spoilt forms may have been contributed by the workers’ low educational background and lack of knowledge on the OSH practices. For respondents in
ICI Paints, this had been addressed by attaching each questionnaire with an envelope marked confidential so that they can seal the completed questionnaires before they pass it over to the supervisors/managers. Once the Plant manager had collected the forms they were immediately handed over to the researcher. However, timing of the data collection had some effects on the survey judging from higher rates of spoilt forms from ICI Paints.

**Administration of Survey Questionnaires**

The survey questionnaires were administered to target employees of the ICI subsidiaries. The objective of the survey is to gather data on employees’ perceptions of work safety practices based on questionnaires for the purpose of quantitative analysis.

**ICI Paints:** Before the start of the fieldwork, the researcher was asked by the HR Manager ICI Paints to postpone the survey and interviews with employees. This was due to the tensions between workers and the management due to a deadlock on union negotiations. The employees’ union had requested for an increase in salaries and benefits which took a long time to reach an agreement. Employees were showing signs of resentment towards the management; such as refusing to work overtime and going on work to rule. This had created a tension at work thus a decision was made with the HR Manager and Plant Manager to postpone the administration of questionnaires and interviews until the situation improved. The postponement was necessary to avoid negative impacts on the survey. The data gathering proceeded to other subsidiaries, which had agreed to bring forward their schedules. Due to the tension in ICI Paints, the
administration of questionnaires was deferred to a later dated. The administration of
questionnaires for employees of ICI Paints was carried out after all the other subsidiaries
had been completed. The questionnaires were handed to the Plant Manager and
supervisors along with an envelope each so that respondents can seal the questionnaires
in the envelopes after completion. Respondents were requested to complete the
questionnaires during the tea and lunch breaks to ensure maximum responses since most
would have gone home if conducted after the end of the shifts. The respondents handed
the completed forms to the supervisors in individual envelopes which was then passed to
the Plant Manager, who then handed them direct to the researcher.

Uniqema, National Starch and Esterol: The administration of questionnaires started
first with Uniqema, followed by National Starch, then Esterol and finally with ICI Paints
once the situation had returned to normal, that is, after successful negotiation between the
workers' union and the management team. The administration of questionnaires started
off with Uniqema, National Starch and Esterol, which was conducted at the
manufacturing sites of the respective subsidiaries. They were held at the meeting rooms
situated in the production plants and were identified for their close proximity to the work
area. To ensure maximum turnout arrangements had earlier been made with the
supervisors for the workers to fill up the questionnaires immediately after the end of each
shift before they go home.

The respondents comprised of two groups: workers' group (supervisors, maintenance
technicians, production operators and general workers) and non-workers' group (plant
managers, technical executives and laboratory technicians). Respondents were given the option to fill the questionnaires either in the English language or the Malay language (Bahasa Malaysia) version. Most of the Malay workers decided to fill in the questionnaires in the Malay language since they were not well versed in the English language. Others preferred to fill up the questionnaires in the English Language since they were well versed in the language. Any questions or confusion on the questionnaires was immediately clarified by the researcher who was present in the room. Respondents were assured of confidentiality of their responses. At the end of the session participants returned the questionnaires personally to the researcher. This process of administering the survey questionnaires applied to Uniqema, National Starch and Esterol.

**Development of Measurement Instrument**

This section discusses the processes involved in the development of measurement instrument. The discussion is organized into two areas: Origin of the measurement instrument and Validity of the Scales. The section focuses on the development of the Work Safety Scales (WSS) and the Commitment Scales using Confirmatory Factor Analysis (CFA) and Reliability tests to validate the scales.
Origin of measurement instrument

The development of the measurement instrument is based on the concepts of 'Implementation' and 'Internalization' (Kostova and Roth, 2002). The scales for 'Implementation' were adapted from Hayes et al’s Work Safety Scale (WSS) that measures employees’ perceptions of work safety. The scale for 'Internalization' was adapted from Kostova & Roth’s ‘Commitment’ scale’ to measure internalization of quality practices.

Work Safety Scale (WSS)

The Work Safety Scale (WSS) was adapted to measure employees’ perceptions on the level of ‘implementation’ of safety practices at the subsidiaries. The Work Safety Scale (WSS) scale was developed by Hayes et al (1998) to assess important dimensions of perceptions of workplace safety. The scale was developed based on past research on perceptions of workplace safety. Previous research has confirmed that perceptions of workplace safety issues are related to accident-related variables such as accident rates, anxiety, and employees’ compliance with safety behaviours (Guastello & Guastello, 1988; Murphy, Sturdivant, & Gershon, 1993). They argued that employees who perceive their jobs as safe tend to be involved in fewer accidents than employees who perceive their jobs as relatively more dangerous (Guastello & Guastello, 1988; Harrell, 1990; Smith et al., 1992). At the same time, employees who perceive their jobs as safe report
lower levels of job-related anxiety and stress, and exposure to fewer environmental hazards (Guastello, 1992), variables that have been strongly linked to accident rates (Guastello, 1989, 1991). The structure and content of the work safety scale was based on safety literature regarding measures of perceptions of work safety Guastello & Guastello, 1988; Sandman, 1992; Smith et al., 1992; Smith et al., 1987; Zohar, 1980). Hayes et al (1998) conducted three (3) studies to validate the Work Safety Scale, using Exploratory Factor Analysis (EFA). EFA is a variable reduction technique that identifies the number of latent constructs and the underlying factor structure of a set of variables.

Validation of WSS Scales

Various studies were conducted by Hayes et al (1998) to validate the WSS Scales. Their first study (Study 1) was conducted to generate the items for the WSS and determine the psychometric properties of the WSS. Sample items of the WSS questionnaires and instruction to complete the items are shown in Appendix 3 Table 3.1. Items in the WSS reflect a diverse set of items, including items that reflected actual behaviours and items that focused more on general attitude. Behavioural-type items were applied to the co-worker, supervisor and management subscales to allow for more specific feedback.

The second study (Study 2) was conducted to cross-validate the findings of Study 1. The study was designed to determine if other aspects of employees' perceptions of work safety were related to employees' compliance with recommended safe work practices. Additional validity evidence was provided in the current study, which include measures
of job satisfaction, job stress, and measures of psychological, physical and sleep complaints to determine if the WSS was logically related to job-related attitudes as well as health-related variables. The final results show the best predictors of accidents were management safety and job safety. The best predictor of compliance with safety behaviors was supervisor safety and co-workers safety. The third study (Study 3) was to provide additional evidences of the reliability (internal consistency) and validity of the WSS. Overall, the results showed the best predictor of near accidents was management safety, while the best predictors of CSB scores were management safety and co-workers safety.

Reasons for adopting WSS

The Hayes et al (1998) studies had provided a sound psychometric measure of perceptions of work safety. The studies had shown good evidences of convergent and discriminant validity. The five dimensions of the WSS subscales: (a) job safety, (b) co-worker safety, (c) supervisor safety, (d) management safety practices, and (e) satisfaction with the safety program had been proven to have high reliability in assessing perceptions of work safety. The exploratory principal-axis factor analysis of the WSS in Appendix 3 Table 3.2 had revealed an interpretable five-factor solution, each factor representing one of the WSS subscales. Additionally, across three independent samples, the internal consistency estimates for each of the WSS subscales were high (above .98) and the correlations among the WSS subscales were relatively low, suggesting that the WSS measured five empirically distinct constructs. The studies also suggest that employees
who worked in a safer environment also reported experiencing fewer accidents and fewer health complaints than employees who said they had a less safe work environment. This information provides useful leads for this research, particularly in investigating work safety at the subsidiaries. The studies had confirmed that some of the best predictors of accidents are compliance with safety behaviors. These findings provide opportunities for in-depth investigation particularly in looking at management support for the practices. It has also been pointed out in the findings that apart from these variables, a person’s social environment and employee behaviors at work have also been suggested to contribute directly or indirectly to accidents, which provide further leads for investigation in the case study.

**Adaptation of the Work Safety Scales (WSS)**

The studies (Hayes et al, 1998) had shown the factor structures for Job Safety, Co-worker's Safety and Compliance to Safety to have sound psychometric properties to measure employees' work safety. For the ‘Job Safety’ scale, the studies have shown that respondents reporting a safe work environment reported experiencing fewer accidents than respondents reporting a less safe work environment, thus to some extent, it captures the effects of the company’s policies and actions at the subsidiaries. The co-worker’s scale was chosen because it has the highest correlation with accident rates and therefore is considered an important variable to the implementation of safety practices. ‘Compliance to Safety’ is important since it reflects individual employee’s behavior and attitude towards work safety. Hence, it is for the above reasons that the variables: Job
Safety, Co-worker's Safety and Compliance to Safety have been identified to measure ‘implementation’ of safety practices at the work place. In adopting the Work Safety Scales, some of the original statements had been modified and the number of items had been reduced. There were several reasons for these modifications. Firstly, some of the statements were complex and difficult to understand. Since most of the respondents were lowly educated workers they may find the statements hard to relate with their job experience, and may chose to ignore them. Secondly, some the statements were quite long. They were described quite lengthily, and written mainly for English-speaking participants. Respondents may be confused with the long statements and hence need to be shortened so that they are easy to comprehend. Thirdly, since some of the respondents do not speak the English language the statements need to be translated to the Malay language. Hence, the statements must be simple and precise so that when translated to the Malay language, they should not lose their original meanings. These factors were taken into consideration to avoid high margin of errors affecting the results of the survey. The following scales were adopted from the WSS to measure the level of implementation of the safety practices at the subsidiaries:

**Scale - ‘Job Safety’**

The scale measures employees’ perceptions of job safety at the work place. Employees who perceive their jobs as safe tend to be involved in fewer accidents than employees who perceived their jobs as relatively more dangerous (Guastello & Guastello, 1988; Harrell, 1990; Smith et al., 1992; Hayes et al 1998). Further, employees who perceive
their workplace as safe report lower levels of job related anxiety and stress, and exposure to fewer environmental hazards (Guastello, 1992; Hayes et al, 1998). These variables have been identified because they are strongly linked to accident rates (Guastello, 1989, 1991), which has implications on the degree of implementation of the safety practices. For the scale 'job safety' 10 items have been identified by the Work Safety Scale (WSS), as shown in Table 3.6. However, not all of these items were included in the measurement instrument. In the adapted scale the items were reduced to 4 as shown in Table 3.7 since it was felt that too many questions may cause confusion to respondents. The term 'job safety' had been changed to 'work environment' to make it easier for workers to relate job safety with the work environment.

Table 3.6 – Job Safety Scale (WSS)

<table>
<thead>
<tr>
<th>Nos.</th>
<th>Description</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Dangerous</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2.</td>
<td>Safe</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3.</td>
<td>Hazardous</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4.</td>
<td>Risky</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>5.</td>
<td>Unhealthy</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>6.</td>
<td>Could get hurt easily</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>7.</td>
<td>Unsafe</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>8.</td>
<td>Fear for health</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>9.</td>
<td>Chance of death</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>10.</td>
<td>Scary</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
Table 3.7 – Work Environment (Adapted)

<table>
<thead>
<tr>
<th>Nos.</th>
<th>Description</th>
<th>Scale</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Dangerous</td>
<td>1 2 3 4 5</td>
<td>Safe</td>
</tr>
<tr>
<td>2.</td>
<td>High Risk</td>
<td>1 2 3 4 5</td>
<td>Low Risk</td>
</tr>
<tr>
<td>3.</td>
<td>Unhealthy</td>
<td>1 2 3 4 5</td>
<td>Health</td>
</tr>
<tr>
<td>4.</td>
<td>Dirty</td>
<td>1 2 3 4 5</td>
<td>Clean</td>
</tr>
</tbody>
</table>

**Scale – ‘Co-Worker Safety’**

The scale measures the employees’ perceptions of co-workers’ safety behaviours at the work place. People who perceived their jobs as safe complied with safety behaviors at work more frequently than people who perceived their jobs as less safe (Hayes et al. 1998). Questions generated for the variable are representative of statements typically found in safety evaluation programs (Peersen, 1978). They reflect a diverse set of items, including items that reflected actual behaviors and items that focused more on general attitudes (Hayes et al, 1998). They measure compliance with safety behaviors and reflect safe or unsafe behaviors. The ‘co-workers safety’ scale consists of 10 declarative statements. For each of the item, respondents were asked to indicate the extent to which they agreed that the item described its respective content domain. The WSS scale for Co-workers’ safety is presented in Table 3.8. In the adapted scale, all the 10 statements from the WSS were applied with no change made to the statements. However, the only difference is the scale measures co-workers’ safety behaviors in 2 different time dimensions: ‘before’ and ‘now’. This is to identify ‘shifts’ or improvements in safety behaviors. The adapted scales are presented in Tables 3.9 and 3.10.
Table 3.8: Co-worker Safety (WSS)

<table>
<thead>
<tr>
<th>Nos.</th>
<th>Questions</th>
<th>More than 3 years ago</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Ignore safety rules</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2.</td>
<td>Don’t care about others’ safety</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3.</td>
<td>Pay attention to safety rules</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4.</td>
<td>Follow safety rules</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>5.</td>
<td>Look out for others’ safety</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>6.</td>
<td>Encourage others’ to be safe</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>7.</td>
<td>Take chances with safety</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>8.</td>
<td>Keep work area clean</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>9.</td>
<td>Safety-oriented</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>10.</td>
<td>Don’t pay attention to safety</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

Table 3.9: Co-worker’s Safety ‘Before’ (Adapted)

<table>
<thead>
<tr>
<th>Nos.</th>
<th>Questions</th>
<th>More than 3 years ago</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Ignore safety rules</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2.</td>
<td>Don’t care about others’ safety</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3.</td>
<td>Pay attention to safety rules</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4.</td>
<td>Follow safety rules</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>5.</td>
<td>Look out for others’ safety</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>6.</td>
<td>Encourage others’ to be safe</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>7.</td>
<td>Take chances with safety</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>8.</td>
<td>Keep work area clean</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>9.</td>
<td>Safety-oriented</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>10.</td>
<td>Don’t pay attention to safety</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
Table 3.10: Co-workers' safety 'Now' (Adapted)

<table>
<thead>
<tr>
<th>Nos.</th>
<th>Questions</th>
<th>More 'Now'</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Ignore safety rules</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2.</td>
<td>Don’t care about others’ safety</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3.</td>
<td>Pay attention to safety rules</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4.</td>
<td>Follow safety rules</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>5.</td>
<td>Look out for others’ safety</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>6.</td>
<td>Encourage others’ to be safe</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>7.</td>
<td>Take chances with safety</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>8.</td>
<td>Keep work area clean</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>9.</td>
<td>Safety-oriented</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>10.</td>
<td>Don’t pay attention to safety</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

Scale - 'Safety Compliance'

This variable measures the individual employee’s perception of his/own safety behaviors at the work place. The variable was adapted from Study 2 to measure safe and unsafe job safety behaviours. The original scale consists of 11 statements, however for the purpose of the measurement instrument, the scale had been reduced to 5 statements. The reason was mainly to focus on the most relevant statements and to avoid confusions amongst respondents. The scale measures two different time dimensions: 'before' (more than 3 years ago) and 'now'. The original scale is presented in Tables 3.11 and the adapted scale in 3.12 and 3.13.
Table 3.11: Compliance with Safety Behaviours (WSS)

<table>
<thead>
<tr>
<th>Items</th>
<th>Statements</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Overlook safety procedures in order to get my job done more quickly</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2.</td>
<td>Follow all safety procedures regardless of the situation I am in</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3.</td>
<td>Handle all situations as if there is a possibility of having an accident</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4.</td>
<td>Wear safety equipment required by practice</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>5.</td>
<td>Keep my work area clean</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>6.</td>
<td>Encourage co-workers to be safe</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>7.</td>
<td>Keep my work equipment in safe working condition</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>8.</td>
<td>Take shortcuts to safe working behaviours in order to get the job done faster</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>9.</td>
<td>Do not follow safety rules that I think are unnecessary</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>10.</td>
<td>Report safety problems to my supervisor when I see safety problems</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>11.</td>
<td>Correct safety problems to ensure accidents will not occur</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
Table 3.12: Employee’s Safety Practices ‘Before’ (Adapted)

<table>
<thead>
<tr>
<th>Nos.</th>
<th>Questions</th>
<th>Before</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Overlook safety procedures to get my job done quickly</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2.</td>
<td>Handle all situations as if there is a possibility of having an accident</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3.</td>
<td>Wear safety equipment required by practice</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4.</td>
<td>Encourage co-workers to be safe</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>5.</td>
<td>Keep my work equipment in safe working condition</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

Table 3.13: Employee’s Safety Practices ‘Now’ (Adapted)

<table>
<thead>
<tr>
<th>Nos.</th>
<th>Questions</th>
<th>Now (Current)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Overlook safety procedures to get my job done quickly</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2.</td>
<td>Handle all situations as if there is a possibility of having an accident</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3.</td>
<td>Wear safety equipment required by practice</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4.</td>
<td>Encourage co-workers to be safe</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>5.</td>
<td>Keep my work equipment in safe working condition</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
Scale - 'Commitment'

The scale for 'internalization' was adapted from Kostova and Roth (2002) 'commitment' scale, who used this scale to measure internalisation of quality management practice. The scale was originally developed by Mowday, Steers & Porter's (1979) to measure psychological ownership, which is described as the state where individuals feel as though the organizational practice is theirs (Pierce et al., 1992). The scale for internalization includes practice commitment (adapted from Mowday et al. (1979) and practice satisfaction (adapted from Locke, 1976). Practice commitment is described as the relative strength of an individual's identification with, and involvement in the practice that is characterized by a strong belief in and acceptance of the practice's goals and values of the practice; practice satisfaction is described as an individual's positive affective attitude towards an organizational practice and an appreciation of its value for the organization (Kostova & Roth (2002). The scale for 'internalization' is represented in Table 3.14 under 'Commitment'. The scale describes the original statements with no change in the number of items.
Table 3.14: Commitment

<table>
<thead>
<tr>
<th>Nos.</th>
<th>Perceptions</th>
<th>Scales</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I am willing to put in a great deal of effort beyond the normally expected in order to make my own work place safe</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>2.</td>
<td>I encourage my co-workers to take safety procedures seriously</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>3.</td>
<td>My own beliefs and what the company belief about safety is very similar</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>4.</td>
<td>The company’s approach to safety really inspires me to do my best to make this work place safe</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>5.</td>
<td>I am really glad that I am involved in creating a safe work place</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>6.</td>
<td>I really care about safety procedures and the work place</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>7.</td>
<td>I often find it difficult to agree with the company’s approach to safety</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>
Tests for Validation - Confirmatory Factor Analysis (CFA)

Data from the survey questionnaires was analysed using Confirmatory factor analysis (CFA). The CFA tests the hypothesis that a relationship between observed variables and their underlying latent constructs exists. The CFA tests confirm whether the hypothesized factor structure is consistent with the data from the empirical study. This was important for two reasons. First, the Hayes et al scales had only ever been validated using an exploratory factor analysis approach. Second, these (modified) scales were being applied in a very different context with a different culture, language and in a developing country versus a developed country context.

Modeling

A common approach to CFA is to use structural equation modeling approaches. This involves specifying factors as latent variables which generate (with error) variation in a set of observed variables. The model will also specify whether factors are correlated or orthogonal (uncorrelated). An iterative process (maximum likelihood is most common) is then used to determine the set of regression weights and error variances for paths and error variables in the model which most closely reproduce the observed covariances between the observed variables. The difference between the observed covariance matrix and the covariance matrix reproduced though this iterative process is then used as the basis for a variety of measures of 'goodness of fit' between the model and the data.
Tests for 'Goodness of fit'

The following tests were conducted to test for 'goodness of fit':

The chi-square test indicates the amount of difference between expected and observed covariance matrices. A chi-square value close to zero indicates little difference between the expected and observed covariance matrices. It is possible to calculate the statistical significance of the difference. However this is not very useful since this is largely a matter of sample size - no factor model will ever be a perfect fit to the data. A common heuristic is to divide $\chi^2$ by degrees of freedom. Common recommendations for acceptable fit are that this ratio should be less than 3 (Joreskog & Sorbom, 1989) or less than 2 (Byrne, 1989, p55).

The Comparative Fit Index (CFI) is equal to the discrepancy function adjusted for sample size. CFI ranges from 0 to 1 with a larger value indicating better model fit. Acceptable model fit is indicated by a CFI value of 0.90 or greater (Hu & Bentler, 1999).

The non-normed fit index (NNFI), also known as the Tucker Lewis Index. This compares the fit of the model to a base case (a zero factor model). The normal criterion for acceptable fit is an NNFI greater than 0.90 (Hu and Bentler, 1995). The CFI and NNFI were chosen since (when used with maximum likelihood estimation) they do not vary systematically with sample size, unlike the GFI and NFI.
Root Mean Square Error of Approximation (RMSEA) is related to residuals in the model. RMSEA values range from 0 to 1 with a smaller RMSEA value indicating better model fit. Acceptable fit is a value of 'about 0.08 or less' (Browne and Cudeck, 1993)

**Procedures**

An initial CFA of the safety scales using data from ICI subsidiaries was carried out. The AMOS 16.0 package was used to conduct a CFA on the items from the four variables 'Work Environment' (job safety), 'Co-worker's Safety (co-worker work safety), 'Employee's own safety' (compliance with safety behaviors) and 'Commitment' (safety commitment). Listwise deletion was used to eliminate missing values resulting in a usable sample of 133 responses. The hypothesized factor structure is shown in figure 3.2 (latent error variables are not shown for simplicity). Straight paths with a single arrow represent regression weights to be calculated from latent variable (factor) to observed variable. Double headed curved paths represent correlations between factors. The first CFA was carried out using the behavior now version of the safety behaviour compliance and co-worker safety scales. A second CFA was carried out using the '3 years ago' version.
Figure 3.2: Initial CFA – fitted model
The following measures of fit were used:

The fit statistics in Table 3.15 give a clear picture of inadequate fit. Inspection of modification indices shows many large modification indices (some in excess of 50).

Table 3.15: Fit Statistics 1

<table>
<thead>
<tr>
<th></th>
<th>$\chi^2$</th>
<th>df</th>
<th>$\chi^2$/df</th>
<th>NNFI</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFA 1 (now items)</td>
<td>707.73</td>
<td>293</td>
<td>2.42</td>
<td>.69</td>
<td>.72</td>
<td>.10</td>
</tr>
<tr>
<td>CFA2 (3 years ago items)</td>
<td>606.59</td>
<td>293</td>
<td>2.07</td>
<td>.76</td>
<td>.79</td>
<td>.09</td>
</tr>
</tbody>
</table>

The pattern which emerges from this inspection (and inspection of the correlation matrix) is of strong relationships between the negatively worded question items in the co-worker and safety behaviour compliance scales. This kind of method artefact is not uncommon where a mix of positively worded and negatively worded items is used to measure the same underlying construct, especially with young or poorly educated research subjects, and may reflect confusion about meaning or a tendency to answer negatively worded questions more in line with recent negative experiences than overall impressions (Schmitt, & Stults, 1985; Schotte et al, 1996). This explanation is highly plausible since the majority of participants in this study were Malay workers with poor education.

In the light of this discovery the negative items were dropped from the co-worker scale and the safety compliance behaviors scale was dropped completely (this scale had the
weakest evidence of psychometric properties from former studies). The CFA was then repeated (again separately for 'now' and '3 years ago' items). The factor model fitted to the data is shown in figure 3.3 (now) and 3.4 (3 years ago), with estimated standardized regression weights and inter-factor correlations.

Figure 3.3: Follow-up CFA (now) – fitted model and standardized parameter estimates
Figure 3.4: Follow-up CFA (3 years ago) – fitted model and standardized parameter estimates
The model presented in Table 3.16 shows a markedly improved fit to the data. Strictly speaking this is not a true CFA since the model results from a modification to a hypothesized model and is fitted using the same data set as the rejected model. However, the model alteration is theoretically justifiable given what we know about negative measurement artifacts.

Table 3.16: Fit Statistics

<table>
<thead>
<tr>
<th></th>
<th>$\chi^2$</th>
<th>df</th>
<th>$\chi^2$/df</th>
<th>NNFI</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFA 3 ('now' items)</td>
<td>181.20</td>
<td>116</td>
<td>1.56</td>
<td>.92</td>
<td>.93</td>
<td>.07</td>
</tr>
<tr>
<td>CFA 4 ('3 years ago' items)</td>
<td>163.63</td>
<td>116</td>
<td>1.42</td>
<td>.93</td>
<td>.94</td>
<td>.06</td>
</tr>
</tbody>
</table>

**Reliability Tests**

Reliability tests were conducted to confirm reliability of the modified scales. The findings for the reliability tests for each of the scale are shown in Table 3.17.

Table 3.17: Scales - Reliability Analysis

<table>
<thead>
<tr>
<th>Scale</th>
<th>Reliability (Cronbach’s Alpha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Environment (Job Safety)</td>
<td>.799</td>
</tr>
<tr>
<td>Co-worker’s safety more than 3 years ago</td>
<td>.862</td>
</tr>
<tr>
<td>Co-worker’s safety now</td>
<td>.879</td>
</tr>
<tr>
<td>Commitment</td>
<td>.788</td>
</tr>
</tbody>
</table>
**New Scales**

The new scales for the measurement instrument now comprised of the following variables:

(i) Job Safety (Work Environment)
(ii) Co-worker's safety before (3 yrs ago)
(iii) Co-worker's safety now
(iv) Commitment

The new scales and full question texts and factor loadings are presented in table 3.18, 3.19, 3.20, and 3.21 below.

**Table 3.18: Scale - (Job Safety)**

<table>
<thead>
<tr>
<th>Nos.</th>
<th>Items</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Dangerous</td>
<td>.76</td>
</tr>
<tr>
<td>2.</td>
<td>High Risk</td>
<td>.70</td>
</tr>
<tr>
<td>3.</td>
<td>Unhealthy</td>
<td>.75</td>
</tr>
<tr>
<td>4.</td>
<td>Dirty</td>
<td>.65</td>
</tr>
</tbody>
</table>
### Table 3.19: Scale - Co-worker’s Safety ‘Now’

<table>
<thead>
<tr>
<th>Nos.</th>
<th>Items</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Pay attention to safety rules</td>
<td>.78</td>
</tr>
<tr>
<td>2.</td>
<td>Follow safety rules</td>
<td>.87</td>
</tr>
<tr>
<td>3.</td>
<td>Look out for others’ safety</td>
<td>.74</td>
</tr>
<tr>
<td>4.</td>
<td>Encourage others’ to be safe</td>
<td>.66</td>
</tr>
<tr>
<td>5.</td>
<td>Keep work area clean</td>
<td>.73</td>
</tr>
<tr>
<td>6.</td>
<td>Safety-oriented</td>
<td>.64</td>
</tr>
</tbody>
</table>

### Table 3.20: Scale - Co-workers’ safety (3 yrs. ago)

<table>
<thead>
<tr>
<th>Nos.</th>
<th>Items</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Pay attention to safety rules</td>
<td>.65</td>
</tr>
<tr>
<td>2.</td>
<td>Follow safety rules</td>
<td>.70</td>
</tr>
<tr>
<td>3.</td>
<td>Look out for others’ safety</td>
<td>.83</td>
</tr>
<tr>
<td>4.</td>
<td>Encourage others’ to be safe</td>
<td>.75</td>
</tr>
<tr>
<td>5.</td>
<td>Keep work area clean</td>
<td>.70</td>
</tr>
<tr>
<td>6.</td>
<td>Safety-oriented</td>
<td>.76</td>
</tr>
</tbody>
</table>
Table 3.21: Scale - Commitment

<table>
<thead>
<tr>
<th>Nos.</th>
<th>Perceptions</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I am willing to put in a great deal of effort beyond the normally expected in order to make my own work place safe</td>
<td>.61</td>
</tr>
<tr>
<td>2.</td>
<td>I encourage my co-workers to take safety procedures seriously</td>
<td>.58</td>
</tr>
<tr>
<td>3.</td>
<td>My own beliefs and what the company belief about safety is very similar</td>
<td>.67</td>
</tr>
<tr>
<td>4.</td>
<td>The company's approach to safety really inspires me to do my best to make this work place safe</td>
<td>.83</td>
</tr>
<tr>
<td>5.</td>
<td>I am really glad that I am involved in creating a safe work place</td>
<td>.80</td>
</tr>
<tr>
<td>6.</td>
<td>I really care about safety procedures and the work place</td>
<td>.61</td>
</tr>
</tbody>
</table>
Survey Questionnaires

The format for the survey questionnaires is shown in appendix 3 Table 33.

The questionnaires were first written in the English language and then translated into the Malay language since the respondents comprised mainly of the Malay ethnic group. Translating the questionnaires in the Malay language helps to reduce errors since participants understand the language better than the English language. However, in translating the questionnaires to the Malay language there may be a possibility that some of the wordings may not be fully accurate in describing the actual statements and some of the meaning lost in the translation. To avoid errors in translations and ensure the descriptions in the Malay language are correct and the meanings kept close to the original questions, a translator was sought to translate the questionnaires. This collaboration between the translator and the researcher who speaks fluent English and Malay as a mother tongue helped ensure translation accuracy. To further avoid the issue of misinterpretation, it was decided that the researcher personally administers the questionnaires. This allowed the researcher to explain and clarify the questions to the respondents directly to avoid unnecessary misinterpretation. The survey questionnaires were then administered to employees at the Malaysian subsidiaries and the data were later processed.
Summary

This section had discussed the research design, methodology, population and samplings, data collection process, development of the scales and measurement instrument. The next part of the chapter 3 (Part 2) discusses the process of analyzing the qualitative data.
CHAPTER 3 – RESEARCH DESIGN (PART 2)

Introduction

The quantitative method measures employees’ perceptions of implementation and internalization of the parent company’s safety practices and values at the Malaysian subsidiaries. Most importantly the quantitative method helps to identify subsidiaries that have low implementation and internalization, providing the lead for further investigation on the issues confronting the subsidiaries. The aim of the qualitative method is to validate the quantitative findings and examine the causes of, and differences in, low implementation and internalization at the subsidiaries. This is carried out through interviews to examine the challenges faced by the subsidiaries in adopting the practices, and to identify the factors that prevent successful implementation and internalization. Hence, the qualitative analysis complements the quantitative findings by examining the safety practices at the subsidiaries and identifying conflicting behaviors that impede the successful transfer and adoption of parent company’s safety practices at the Malaysian subsidiaries. It is also worth noting here that the qualitative approach is concerned with answering the overall research question that drive the study, which is very broad (and exploratory) in nature to answer the research question: “What are the barriers that impede the successful transfer and adoption of the parent’s OSH practices at the Malaysian subsidiaries?” At the same time, the qualitative analyses focuses on the narrower research questions and specific issues e.g. “In view of differences in
institutional contexts between the western parent and the South East Asian subsidiaries, what are the factors that prevent implementation and internalization?” These narrow questions are part of the broader overarching research question that the qualitative analysis will provide in answer to the overall research question.

**Method of Analyzing Qualitative Data**

This section is organized into three key aspects: (1) Interviews (2) Thematic Analysis (3) Theoretical Framework. The first section discusses the processes involved in conducting the interviews highlighting issues that may affect the interviews. The second section discusses the methods used to analyse the qualitative data and the procedures involved in analysing the data.

**Interviews**

Interviews are an essential source of information for case study research (Yin, 1994, p. 84), and arguably the primary data source where researchers can best access participants' views and interpretation of actions and events (Walsham, 1995). They provide important empirical evidence. Key informants are critical to the success of a case study, since they not only provide the case study investigator with insights into a matter but also can suggest sources of corroboratory or contrary evidence, and also initiate access to such sources (Yin, 2003). However, one has to be cautious about becoming overly dependent
on a key informant, especially because of the interpersonal influence. In this context, the researcher dealt with the situation also relying on other sources of evidence to confirm the information and to search for contrary evidence.

The general approach to the interviews was more of guided conversations rather than structured queries. In other words, the researcher is pursuing a consistent line of inquiry, where the actual stream of questions in the interviews is likely to be fluid rather than rigid (Rubin & Rubin, 1995). Thus, the interviewer has two objectives: (a) to follow the line of inquiry, as reflected by study protocol, and (b) to ask (conversational) questions in an unbiased manner that also serve the needs of the line of inquiry (Yin, 2003). Specifically, the interviews should satisfy the needs of the line of inquiry while simultaneously putting forth "friendly" and "non threatening" questions. For example, in trying to find out "why" a particular process occurred as it did, the interviewer should bear in mind that posing a "why" question may cause the informant to react in a defensive manner, compared to posing a "how" question (Decker, 1998, pp. 58-60). Hence, interviews should be carried out in an open-ended manner in which key respondents were asked about the facts of the matter as well as their opinions about events. In some situations, the respondents were asked to propose his/her own insights about certain situations and the information used as a basis for further inquiry. For the key respondents a focused interview can be applied (Merton, Fiske, & Kendall, 1990). Thus interviews with key managers were open-ended and assume a conversational manner, and the set of questions derived from the case study protocol. For example, when trying to understand the
impact of OSH legislation or company policies, the aim is to corroborate certain facts that have already been established.

Interviews are an essential source of case study evidence because most case studies are about human affairs. They should be reported and interpreted through the eyes of specific interviewees, thus key respondents provide important insights into the situation. They also provide information to the prior history of the situation, and help to identify other relevant sources of evidences. However, interviews may be subject to the common problems of bias, poor recall, and poor or inaccurate articulation. Particularly, Malaysia being a multicultural country, the perceptions given by the respondents may reflect cultural bias. For example managers may not give high priority on the OSH practices because of thriftiness, which is an important value within the hierarchy of values based on the Chinese Confucian belief system.

Similarly, workers may not be comfortable discussing issues which are perceived to be sensitive, for example they may not be willing to complain about the managers' lack of priority for the practices, because of this sensitivity, an important value in the Malay Budhi belief systems. Besides, the workers' lack of education may make it difficult for them to express or communicate articulately on the challenges faced in carrying out the practices. Furthermore, Malaysia as a developing nation may not see the importance placed on occupational safety compared to other developing countries e.g. the U.K. Due to the lower economic background respondents may see higher importance on job security than on personal safety as they may not want to jeopardize their job security by giving
negative statements on the practices during the interview. Hence respondents may not see the importance of OSH, affecting their perceptions of the situation.

**Procedures**

Target Groups: Interviews were conducted mostly with the target group from the ICI Malaysian subsidiaries (internal environment) to examine the challenges faced in implementing the ICI OSH policy and practices. The target group comprised of senior management as well as employees based at the manufacturing sites. Interviews were also conducted with selected people from other organizations in the wider environment to examine the challenges faced in complying with the OSH legislation enforced by the Malaysian government under the Occupational Safety and Health Act, 1994.

Administration: The interview schedule for ICI Paints, Uniqema, National Starch, and Esterol were done several weeks in advance of the interviews. The interviews with ICI Paints were carried out last due to the sensitive atmosphere at that time. Interviewees were identified based on their direct involvement to enforce and monitor the OSH policies (e.g. Senior Managers, middle managers), and through implementation of the OSH practices where the OSH practices constitute part of their job functions (e.g. Supervisors, Workers). Employees were informed two weeks before the interview schedule to ensure maximum turnout and participation. In Uniqema, National Starch and Esterol, the researcher conducted the interviews personally with the individual employee in the privacy of a meeting room close to the work area. The interviews were conducted
in privacy within the confines of the four walls of the meeting room ensuring participants confidentiality of data. The interviews at Uniqema, National Starch and Esterol were carried out without a hitch with workers cooperating fully with the line of enquiries. In ICI Paints, the situation was different due to the sensitive atmosphere at that time. The interviews were conducted by telephone and not face-to-face. The telephone interviews carried out with ICI Paints workers were not very informative as it was felt that workers were not giving enough information about the practices. This is possibly due to the lack of privacy as the phone was located in the supervisor's workstation. Interviewees may not feel comfortable discussing the safety issues in front of their supervisors and colleagues. Respondents tend to be cautious when responding to the interview questions and gave more positive feedbacks about the company's safety practices. This may have some effect on the response since 'real' issues relating to the practices could not be discussed. Particularly for the Malay workers, their indirectness and high sense of respect for superiors may prevent them from giving more accurate information regarding the practices.

**Process**

The interviews started by explaining to the participants the objectives of the study: "I am a PhD student of the Open University U.K. My research is about safety and health practices in ICI. The objective of this interview is to find out how safety and health practices are being carried out in your company." The interviews were guided by the following questions to ensure that they remain within the objectives:
(i) "How do you implement safety in your work place?"

(ii) "What are the safety rules that are applicable to your work?"

(iii) "What happens if you ignore the safety rules?"

(iv) "What are the problems you face in carrying out the practices?"

(v) "What are the differences in safety practices now and before?"

(vi) "How do you see safety and health being carried out in this company?"

The interviews were recorded using audiotape recorders to provide an accurate rendition of the interviews. However, interviews with top management were not recorded because they asked not to be tape-recorded due to the sensitivity of the discussion. In these cases the interviewer took contemporaneous notes and wrote field notes immediately following interviews. All other interviews were tape recorded to provide a complete description of the interviewees' responses and comments about their perceptions of the practices.

Data Analysis Tools

Qualitative approaches can be incredibly diverse, complex and nuanced (Holloway & Todres, 2003) however applying thematic analysis provides an effective tool for qualitative analysis in this case study context (V. Braun & V. Clarke, 2006). Thematic analysis is a method for identifying, analysing and reporting patterns (themes) within data. It minimally organizes and describes the data set in (rich) detail. However, frequently it goes further than this, and interprets various aspects of the research topic
(Boyatzis, 1998). Thus, thematic analysis can be a method that works both to reflect reality and to unpick or unravel the surface of ‘reality’ (V. Braun & V. Clarke, 2006). However, when using thematic analysis, it is important that the theoretical position of a thematic analysis is made clear. The thematic analysis is applied together with a theoretical framework (Scott’s “Institutional Pillars and Carriers) to examine assumptions about the nature of the data, what they represent in terms of the ‘the world’, or ‘reality’, thus, a good thematic analysis should make this transparent (V. Braun & V. Clarke, 2006).

A theme captures important aspects of the data in relation to the research question, and represents some level of patterned response or meaning within the data set. In a thematic analysis, an important question to address is, what counts as a pattern/theme? For example in this study, what constitute occupational safety and health practices (i.e. regulatory system e.g. ICI OSH policies, regulations, procedures)? Another question to address is, what size the theme needs to be? For example how high is the industrial accident rates and occupational health issues (i.e. accident and health rates)? This is a question of prevalence, in terms both of space within each data item and of prevalence across the entire data set. Although findings from the quantitative analysis is important, however the ‘keyness’ of a theme is not necessarily dependent on quantifiable measures, but rather on whether it captures something important in relation to the overall research question. Prevalence could be counted at the level of the data item, i.e. did a theme (e.g. work safety) appear anywhere in each individual interview? Alternatively, it could be counted between different data item who articulated the theme, i.e. did a theme appear more in the younger group than in the older group? or occurrence of the theme across the
entire data set i.e. did the theme appear more in the new subsidiaries than the old subsidiary?.

In applying thematic analysis a rich description of the data set, or a detailed account of one particular aspect is important to determine the claims that are being made in relation to the data set. By providing a rich thematic description of the entire data set, e.g. regulatory, (OSH policies and regulations), normative (safety attitude and behaviors) and cultural-cognitive systems (safety values) give the reader a sense of the predominant or important themes. Thus, applying thematic analysis provides a more detailed and nuanced account of one particular theme, or group of themes, within the data, that relate to a specific question or area of interest within the data, or to a particular 'latent' theme across the whole or majority of the data set. A thematic analysis at the latent level goes beyond the semantic content of the data, and starts to identify or examine the underlying ideas, assumptions, conceptualizations and ideologies that are theorized as shaping or informing the semantic content of the data. In this sense by examining values and norms the data can explain why the lack of compliance to the safety rules. For latent thematic analysis, the development of the themes themselves involves interpretative work, and the analysis that is produced is not just description, but is already theorized (i.e. institutional theory). Thus thematic analysis involves searching across a data set - be that a number of interviews or focus groups, or a range of texts - to find repeated patterns of meaning in relation to the safety practices.
The process of thematic analysis had already started when the researcher began to notice, and looked for patterns of meaning and issues of potential interest in the data during the interviews. The endpoint was the reporting of the content and meaning of patterns (themes) in the data. The analysis involved constant moving back and forward between the entire data set, the coded extracts of data that are being analyzed, and the analysis of the data that are being produced. Writing is an integral part of the analysis. Writing began at the initial stage of the study, by jotting down ideas relating to the safety behaviors and continued right through the entire analysis process. The thematic analysis involved several phases as shown in the summary in Table 3.22.

Table 3.22: Thematic Analysis Processes

<table>
<thead>
<tr>
<th>Phases</th>
<th>Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Familiarizing with the data. This involves transcribing the data, reading and re-reading the data, noting down initial ideas.</td>
</tr>
<tr>
<td>2</td>
<td>Generating initial codes: Using QSR software, interesting features of the data were coded in a systematic fashion across the entire data set, collating data relevant to each code.</td>
</tr>
<tr>
<td>3</td>
<td>Searching for themes: Applying the Institutional Pillars and Carriers framework (Scott, 2000) as a guideline, the data were coded into potential themes, gathering all data relevant to each potential theme.</td>
</tr>
<tr>
<td>4</td>
<td>Reviewing themes: This involves checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic ‘map’ of the analysis.</td>
</tr>
<tr>
<td>5</td>
<td>Defining and naming themes: This involves ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.</td>
</tr>
<tr>
<td>6</td>
<td>Producing the report: This involves the selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.</td>
</tr>
</tbody>
</table>
Each of the phases is described in detail below.

**Phase 1: familiarization with data**

After interviewing the employees at the ICI subsidiaries the data was then transcribed. This was a long process that took three (3) months to complete. During the transcription process, the data content was read and re-read several times, searching for meanings and patterns related to the research questions. Transcriptions of verbal data from the interviews were transcribed into written form before conducting the analysis. The process of transcription was time-consuming, frustrating, and at times boring. However, it was also viewed as an excellent way to start familiarizing with the data (Riessman, 1993). Some researchers even argue it should be seen as 'a key phase of data analysis within interpretative qualitative methodology' (Bird, 2005: 227), and recognized as an interpretative act, where meanings are created, rather than simply a mechanical act of putting spoken sounds on paper (Lapadat and Lindsay, 1999). Transcribing the data requires at a minimum a rigorous and thorough 'verbatim' account of all verbal (and sometimes nonverbal) utterances, but most important the transcript retains the information that are needed from the verbal account, and in a way which is 'true' to its original nature (eg, punctuation added can alter the meaning of data). Thus, although a lot of time was spent on transcription at the early stage of the analysis, it was felt that the time was well spent as it informs the early stages of analysis, and helped to develop a far more thorough understanding of the data through having transcribed it. Furthermore, the close attention needed to transcribe the data facilitates the close reading and interpretative skills needed to analyse the data (Lapadat and Lindsay, 1999). It is important at this
stage to also check the transcripts back against the original audio recordings for 'accuracy' (as should always be done).

**Phase 2: Generating initial codes**

Once the data had been read and familiarized, an initial list of ideas was generated about what is in the data and what is interesting about them. This phase involved the production of initial codes from the data. Codes identify a feature of the data (semantic content or latent) that appeared interesting, and referred to 'the most basic segment, or element, of the raw data or information that can be assessed in a meaningful way regarding the phenomenon' (Boyatzis, 1998: 63). The process of coding is part of analysis (Miles and Huberman, 1994), as the data was organized into meaningful groups (Tuckett, 2005). However, the coded data differ from the units of analysis (themes), which are (often) broader. Themes are where the interpretative analysis of the data occurs, and in relation to which arguments about the phenomenon being examined are made (Boyatzis, 1998). Coding the themes were more data driven, to identify particular features of the data set. Coding was performed through the QSR software programme, which systematically structured the coding and mapped out the themes.

**Phase 3: Searching for themes**

This phase re-focuses the analysis at the broader level of themes, rather than codes. It involved sorting the different codes into potential themes, and collating all the relevant coded data extracts within the identified themes, focusing particularly on relationship between codes, between themes, and between different levels of themes. Some initial codes formed the themes, whilst others formed the sub-themes, and others were
discarded. At this stage, the set of codes that do not seem to belong anywhere were labelled miscellaneous. Thus in this phase a collection of themes, sub-themes, and all extracts of data were coded. At this point, a sense of the significance of individual themes was seen. None of the data was abandoned as it was uncertain whether the themes hold as they are, or whether some need to be combined, refined and separated, or discarded.

**Phase 4: Reviewing themes**

This involved the refinement of those themes that had been devised. During this phase, it had become evident that some candidate themes were not really themes (e.g. those that do not enough data to support them, or the data were too diverse), while others had collapsed into each other (e.g. two apparently separate themes might form one theme). Other themes needed to be broken down into separate themes. Patton’s (1990) dual criteria for judging categories emphasize internal homogeneity and external heterogeneity, data within themes should cohere together meaningfully, while there should be clear and identifiable distinctions between themes. This phase involved two levels of reviewing and refining the themes. Level one involved reviewing at the level of the coded data extracts, which means reading all the collated extracts for each theme to see whether they appear to form a coherent pattern. In problematic theme some of the data extracts within it simply do not fit and were reviewed or discarded from the analysis. Once a ‘thematic map’ had been developed, the analysis moved on to level two. Level two involved a similar process, but in relation to the entire data set. This level considers the validity of individual themes in relation to the data set, and also whether the candidate thematic map ‘accurately’ reflects the meanings evident in the data set as a whole. This phase has two
purposes. The first is, to ascertain whether the themes ‘work’ in relation to the data set. The second is to code any additional data within themes that has been missed in earlier coding stages. The need for re-coding from the data set is an ongoing organic process.

**Phase 5: Defining and naming themes**

Once a satisfactory thematic map of the data had been developed, the theme was further defined and refined for analysis, analyzing the data within them. By ‘define and refine’, it means identifying the ‘essence’ of what each theme is about (as well as the themes overall), and determining what aspect of the data each theme captures as well as identifying what is of interest about the themes and why. For each individual theme, a detailed analysis was conducted and written, as well as identifying the ‘story’ that each theme tells. Thus, it is important that the theme fits into the broader overall ‘story’ that were being told by the data, in relation to the research question or questions, to ensure there is not too much overlap between themes. As part of the refinement, there was a need to identify whether or not a theme contains any sub-themes. Sub-themes are essentially themes-within-a-theme. They are useful for giving structure to a particularly large and complex theme, and also for demonstrating the hierarchy of meaning within the data.

**Phase 6: Producing the report**

The final phase involved the final analysis and write-up. The task of the write-up of a thematic analysis for a research assignment is to tell the complicated story of the data in a way, which convinces the reader of the merit and validity of the analysis. The analysis (the write-up of it, including data extracts) should provide a concise, coherent, logical,
non-repetitive and interesting account of the story the data tell within and across themes. There were two main issues identified when applying thematic analysis. The first issue is that, since thematic analysis allows for flexibility and provides for a wide range of analytic options, it may result in potentially broad outcomes. This makes developing specific guidelines for higher-phase analysis difficult, and can be potentially paralysing to the researcher trying to decide what aspects of their data to focus on. Another issue is that a thematic analysis has limited interpretative power beyond mere description if it is not used within an existing theoretical framework that anchors the analytic claims that are made. The use of theories is important to ensure that the researcher is not 'lost' amidst the vast data and lose focus on the research questions. The analysis is constantly being guided by institutional theories and framework to guide the process of analyzing and interpreting the data.

**Potential pitfall**

There are a number of pitfalls that can result in a poor analysis. The first of these is a failure to actually not analyse the data at all. The analysis is not just a collection of extracts strung together with little or no analytic narrative. Nor is it a selection of extracts with analytic comment that simply or primarily paraphrases their content. The extracts are illustrative of the analytic points the researcher makes about the data, and should be used to illustrate/support an analysis that goes beyond their specific content, to make sense of the data, and tell the reader what it does or might mean. A second, associated pitfall is the using of the data collection questions (such as from an interview schedule) as
the themes that are reported. In such a case, no analytic work has been carried out to identify themes across the entire data set, or make sense of the patterning of responses. The third is a weak or unconvincing analysis, where the themes do not appear to work, where there is too much overlap between themes, or where the themes are not internally coherent and consistent. All aspects of the theme should cohere around a central idea or concept. This pitfall has occurred if, depending on what the analysis is trying to do, it fails adequately to capture the majority of the data, or fails to provide a rich description/interpretation of one or more aspects of the data. A weak or unconvincing analysis can also stem from a failure to provide adequate examples from the data for example, only one or two extracts for a theme. This point is essentially about the rhetorics of presentation, and the need for the analysis to be convincing to someone who has not read the entire data set: The analysis of the material is a deliberate and self-consciously artful creation by the researcher, and must be constructed to persuade the reader of the plausibility of an argument (Foster and Parker, 1995: 204). The fourth pitfall is a mismatch between the data and the analytic claims that are made about it. In such an (unfounded) analysis, the claims cannot be supported by the data, or, in the worst case, the data extracts presented suggest another analysis or even contradict the claims. The researcher needs to make sure that their interpretations and analytic points are consistent with the data extracts. A weak analysis does not appear to consider other obvious alternative readings of the data, or fails to consider variation (and even contradiction) in the account that is produced. A pattern in data is rarely, if ever, going to be 100% complete and non-contradicted, so an analysis which suggests that it is, without a thorough explanation, is open to suspicion. It is important to pick compelling examples to
demonstrate the themes, so give this considerable thought. The fifth involves a mismatch between theory and analytic claims, or between the research questions and the form of analysis used. A good analysis needs to make sure that the interpretations of the data are consistent with the theoretical framework. Finally, even a good and interesting analysis which fails to spell out its theoretical assumptions, or clarify how it was undertaken, and for what purpose, is lacking crucial information (Holloway and Todres, 2003), and thus fails in one aspect.

Summary

Part 1 of the chapter describes the quantitative aspect of the research design and the development of measurement tools for the quantitative survey. Part 2 describes the qualitative aspect of the research design and the type of tool used to analyse the interviews. The overall design of the research is fundamental in providing the right direction for validity of results. Details of the qualitative and quantitative analysis are discussed in Chapter 4.
CHAPTER 4 – ANALYSIS AND RESULTS (PART 1)

Introduction

The previous chapter had discussed the research design and methodology. This chapter describes the process of analyzing the data, and highlights their findings. The first part of the chapter discusses the process of analyzing the quantitative data and the various methods used. The second part of the chapter discusses the process of analyzing the qualitative data and the methods applied. The quantitative and qualitative analysis look for common patterns or characteristics relating to the hypothesis.

Quantitative Analysis

This section describes the process of analyzing the quantitative data and the various tests applied to identify common characteristics relating to the hypothesis. The hypotheses are linked to the specific research question: How does the local institutional context influence the process of transfer and adoption to the subsidiaries?

Hypothesis 1: There will be less implementation of safety practices in the most recently acquired subsidiaries than in the less recently acquired subsidiary.
Test for Implementation

Implementation was measured using the variables: Job Safety, Co-workers' Safety 'now' and Co-workers' safety 'before' (more than 3 years ago).

Variable 1: Job Safety (Work Environment)

A one-way Anova was applied to test whether the newly acquired subsidiaries have significantly lower job safety than the old subsidiary (ICI paints). The mean statistics in Table 4.1 show employees at the subsidiaries perceived job safety to be fairly low on average (mean=2.6). National Starch had lowest job safety (mean=2.2) whilst ICI Paints had highest (mean=3.1).

Table 4.1: Mean -Work Environment (Job Safety)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Subsidiaries</th>
<th>Employees</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Environment (Job Safety)</td>
<td>ICI Paints</td>
<td>61</td>
<td>3.1</td>
</tr>
<tr>
<td></td>
<td>Uniqema</td>
<td>36</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td>National Starch</td>
<td>32</td>
<td>2.2</td>
</tr>
<tr>
<td></td>
<td>Esterol</td>
<td>23</td>
<td>2.6</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>152</td>
<td>2.8</td>
</tr>
</tbody>
</table>
Table 4.2 shows results of the ANOVA test. The results confirmed there are differences in job safety between the subsidiaries ($f=9.1, p=0.00$).

Table 4.2: Anova Test - Between subsidiaries

<table>
<thead>
<tr>
<th>Job Safety</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>21.8</td>
<td>3</td>
<td>7.2</td>
<td>9.13</td>
<td>.00</td>
</tr>
<tr>
<td>Within Groups</td>
<td>117.8</td>
<td>148</td>
<td>.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>139.7</td>
<td>151</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A further analysis was carried out using Bonferroni to find out which subsidiaries have significantly lower job safety. The results in Table 4.3 show job safety is significantly lower in National Starch when compared with ICI Paints, and also significantly lower in National Starch when compared with Uniqema.
Table 4.3: Multiple Comparisons between Subsidiaries – Job Safety

<table>
<thead>
<tr>
<th>(I) Company</th>
<th>(J) Company</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound Upper Bound</td>
</tr>
<tr>
<td></td>
<td>ICI Paints</td>
<td>Uniqema</td>
<td>.20</td>
<td>.19</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>National Starch</td>
<td>.98*</td>
<td>.19</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Esterol</td>
<td>.52</td>
<td>.21</td>
<td>.10</td>
</tr>
<tr>
<td></td>
<td>Uniqema</td>
<td>ICI Paints</td>
<td>-.20</td>
<td>.18</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>National Starch</td>
<td>.78*</td>
<td>.21</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Esterol</td>
<td>.31</td>
<td>.23</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>National Starch</td>
<td>ICI Paints</td>
<td>-.98*</td>
<td>.19</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Uniqema</td>
<td>-.78*</td>
<td>.21</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Esterol</td>
<td>-.46</td>
<td>.24</td>
<td>.35</td>
</tr>
<tr>
<td></td>
<td>Esterol</td>
<td>ICI Paints</td>
<td>-.52</td>
<td>.21</td>
<td>.10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Uniqema</td>
<td>-.31</td>
<td>.23</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>National Starch</td>
<td>.46</td>
<td>.24</td>
<td>.35</td>
</tr>
</tbody>
</table>

* The mean difference is significant at the 0.05 level.
Overall, the results show job safety is lower in National Starch than the other subsidiaries.

Variable 2 (a) - Co-worker’s Safety Before (More than 3 years ago) and Now

An analysis was carried out using one-way Anova to find out employees’ perceptions on co-workers’ safety behaviors more than three years ago. The ‘mean’ statistics in Table 4.4 show that in general employees perceived co-workers’ safety practices to be slightly above average (mean=3.5). The results also show co-workers’ safety behaviors at National Starch and Esterol to be lowest (mean=3.3) while ICI Paints and Uniqema were highest (mean=3.6).

Table 4.4: Co-workers’ Safety ‘more than 3 years ago’

<table>
<thead>
<tr>
<th>Variable (more than 3 years ago)</th>
<th>Companies</th>
<th>N</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-workers’ safety</td>
<td>ICI Paints</td>
<td>60</td>
<td>3.6</td>
</tr>
<tr>
<td></td>
<td>Uniqema</td>
<td>36</td>
<td>3.6</td>
</tr>
<tr>
<td></td>
<td>National Starch</td>
<td>32</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td>Esterol</td>
<td>21</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>149</td>
<td>3.5</td>
</tr>
</tbody>
</table>
The Anova test was carried out to determine whether there is any significant difference in co-workers' safety behaviors more than 3 years ago between the subsidiaries. The results in table 4.5 show that while ICI paints (with Uniquema) has the highest mean there is only a marginally ($p<0.10$) significant difference in co-workers' safety behaviors more than 3 years ago ($F=2.1$, $p=0.09$) between the subsidiaries.

Table 4.5: Anova test Between Groups – Co-workers' safety ‘>3 years’

<table>
<thead>
<tr>
<th>Variables</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-workers’ safety (more than 3 years ago)</td>
<td>Between Groups</td>
<td>4.71</td>
<td>3</td>
<td>1.57</td>
<td>2.15</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>105.58</td>
<td>145</td>
<td>.72</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>110.30</td>
<td>148</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The multiple comparison test was carried out using Bonferroni to determine which of the subsidiaries show significantly low co-workers' safety more than 3 years ago. The results in Table 4.6 show there is no significant difference between the subsidiaries on co-workers' safety more than 3 years ago.
<table>
<thead>
<tr>
<th>Bonferroni Dependent Variable</th>
<th>(I) Company</th>
<th>(J) Company</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-workers’ safety (more than 3 years ago)</td>
<td>ICI Paints</td>
<td>Uniqema</td>
<td>.01</td>
<td>.17</td>
<td>1.00</td>
<td>-.46</td>
<td>.49</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>National Starch</td>
<td>.37</td>
<td>.18</td>
<td>.29</td>
<td>-.12</td>
<td>.87</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Esterol</td>
<td>.38</td>
<td>.21</td>
<td>.46</td>
<td>-.19</td>
<td>.96</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Uniqema</td>
<td>ICI Paints</td>
<td>-.01</td>
<td>.17</td>
<td>1.00</td>
<td>-.49</td>
<td>.46</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>National Starch</td>
<td>.35</td>
<td>.20</td>
<td>.53</td>
<td>-.19</td>
<td>.91</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Esterol</td>
<td>.36</td>
<td>.23</td>
<td>.70</td>
<td>-.25</td>
<td>.99</td>
<td></td>
</tr>
<tr>
<td></td>
<td>National Starch</td>
<td>ICI Paints</td>
<td>-.37</td>
<td>.18</td>
<td>.29</td>
<td>-.87</td>
<td>.12</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Uniqema</td>
<td>-.35</td>
<td>.20</td>
<td>.53</td>
<td>-.91</td>
<td>.19</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Esterol</td>
<td>.01</td>
<td>.23</td>
<td>1.00</td>
<td>-.62</td>
<td>.65</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Esterol</td>
<td>ICI Paints</td>
<td>-.38</td>
<td>.21</td>
<td>.46</td>
<td>-.96</td>
<td>.19</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Uniqema</td>
<td>-.36</td>
<td>.23</td>
<td>.70</td>
<td>-.99</td>
<td>.25</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>National Starch</td>
<td>-.01</td>
<td>.23</td>
<td>1.00</td>
<td>-.65</td>
<td>.62</td>
<td></td>
</tr>
</tbody>
</table>
Variable 2 (b) Co-Worker’s Safety ‘Now’

The mean statistics in table 4.7 show that overall co-workers’ safety now had improved at the subsidiaries (mean=4.1). Particularly Esterol had the highest (mean=4.4), while National Starch is still the lowest (mean=3.9). This indicates that Esterol had overtaken ICI Paints, while National Starch is still lagging behind.

Table 4.7: Mean – Co-workers’ safety ‘now’

<table>
<thead>
<tr>
<th>Variable</th>
<th>Companies</th>
<th>N</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-worker safety</td>
<td>ICI Paints</td>
<td>61</td>
<td>4.0</td>
</tr>
<tr>
<td>(now)</td>
<td>Uniqema</td>
<td>36</td>
<td>4.3</td>
</tr>
<tr>
<td></td>
<td>National Starch</td>
<td>32</td>
<td>3.9</td>
</tr>
<tr>
<td></td>
<td>Esterol</td>
<td>23</td>
<td>4.4</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>152</td>
<td>4.1</td>
</tr>
</tbody>
</table>

The Anova test in table 4.8 was carried out to determine whether there is any significant differences, on co-workers’ safety now, between the subsidiaries. The results confirm there is significant difference between the subsidiaries on co-workers’ safety behaviors now (f=2.8, p=0.04).
Table 4.8: Anova test  Between Groups – Co-workers' safety now

<table>
<thead>
<tr>
<th>Variables</th>
<th>Groups</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coworker safety (now)</td>
<td>Between Groups</td>
<td>4.65</td>
<td>3</td>
<td>1.55</td>
<td>2.84</td>
<td>.04</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>80.80</td>
<td>148</td>
<td>.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>85.46</td>
<td>151</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The multiple comparison test was carried out using to determine which subsidiaries have lowest co-workers' safety now. The results in Table 4.9 below show co-workers' safety now to be only marginally significantly different\(^1\) between National Starch and Esterol (0.6).

\(^1\) Since there are small sample sizes in each subsidiary and hence tests have low power to detect differences, I report significance at the p<0.1 level as 'marginal significance'.

Table 4.9: Multiple Comparisons between subsidiaries - 'Co-workers' safety now

<table>
<thead>
<tr>
<th>Bonferroni Company</th>
<th>(I) Company</th>
<th>(J) Company</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
</tr>
<tr>
<td>Coworker safety (now)</td>
<td>ICI Paints</td>
<td>Uniqema</td>
<td>-.20</td>
<td>.15</td>
<td>1.00</td>
<td>-.62</td>
</tr>
<tr>
<td></td>
<td></td>
<td>National</td>
<td>.15</td>
<td>.16</td>
<td>1.00</td>
<td>-.28</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Starch</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Esterol</td>
<td>-.37</td>
<td>.18</td>
<td>.23</td>
<td>-.85</td>
</tr>
<tr>
<td>Uniqema</td>
<td>ICI Paints</td>
<td>.20</td>
<td>.15</td>
<td>1.00</td>
<td></td>
<td>-.21</td>
</tr>
<tr>
<td></td>
<td></td>
<td>National</td>
<td>.35</td>
<td>.17</td>
<td>.29</td>
<td>-.12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Starch</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Esterol</td>
<td>-.17</td>
<td>.19</td>
<td>1.00</td>
<td>-.69</td>
</tr>
<tr>
<td>National Starch</td>
<td>ICI Paints</td>
<td>-.15</td>
<td>.16</td>
<td>1.00</td>
<td></td>
<td>-.58</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Uniqema</td>
<td>-.35</td>
<td>.17</td>
<td>.29</td>
<td>-.83</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Esterol</td>
<td>-.52</td>
<td>.20</td>
<td>.06</td>
<td>-1.06</td>
</tr>
<tr>
<td>Esterol</td>
<td>ICI Paints</td>
<td>.37</td>
<td>.18</td>
<td>.23</td>
<td></td>
<td>-.10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Uniqema</td>
<td>.17</td>
<td>.19</td>
<td>1.00</td>
<td>-.35</td>
</tr>
<tr>
<td></td>
<td></td>
<td>National</td>
<td>.52</td>
<td>.20</td>
<td>.06</td>
<td>-.01</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Starch</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The small sample size in each subsidiary means there is weak power to detect differences between individual subsidiaries. However, the most notable difference that emerges in the analysis for implementation is that National Starch shows the least favorable job safety. Perceptions on co-workers' safety now show National Starch to be marginally significantly lower than Esterol. However, a picture emerges of overall improvement, with the oldest subsidiary (ICI Paints) having the highest safety implementation in the past, but had been overtaken by Esterol, while National Starch fails to make any progress. There are somewhat negative perceptions of safety at the work environment, particularly at the newly acquired subsidiaries.

**Newly Acquired Subsidiaries** - The above findings show that in particular, National Starch was slow to adapt to the ICI safety practices. Job safety was significantly lower in National Starch when compared to ICI Paints and Uniqema. This suggests that employees in National Starch perceived their workplace to be more dangerous and unhealthy compared to employees in ICI Paints and Uniqema. Interestingly, the findings also show that a new subsidiary with limited exposure to the ICI safety practices had made significant improvements on co-workers' safety now and caught up with the old subsidiary. Esterol had shown remarkable improvements on co-workers' safety practices now and had overtaken ICI Paints. This suggests that employees are facing fewer challenges to adopt the ICI practices than in other subsidiaries. The findings also show that Uniqema is on par with ICI Paints in terms of job safety and co-workers' safety.
Old Subsidiary - ICI Paints had longer exposure to the parent's practices thus it was expected that the old subsidiary would achieve highest job safety when compared to all of the newly acquired subsidiaries, which had shorter exposures to the ICI practices however, the results show that this is not the case. For example job safety is only significantly higher than National Starch, but not with all of the newly acquired subsidiaries. Similarly, co-workers' safety was only marginally higher than National Starch but not with all of the new subsidiaries. This indicates that although ICI Paints had longer exposure to the safety practices, however safety practices is not significantly better than the new subsidiaries.

Hence, the quantitative findings partially support Hypothesis 1: *There will be less implementation of safety practices in the most recently acquired subsidiaries than in the less recently acquired subsidiary.*

**Hypothesis 2:** *There will be less internalization of safety values among employees of the most recently acquired subsidiaries than in the less recently acquired subsidiary.*

**Test for Commitment**

The Anova test was carried out to compare the level of internalization between the subsidiaries. Internalization is measured through the variable - commitment. The results in Table 4.10 show employees at the Malaysian subsidiaries generally perceived they are committed to the ICI safety practices and values (mean=5.9). Particularly, employees at
Esterol see themselves to be more committed to the ICI safety practices and values (mean=6.2). However employees in National Starch see themselves to be less committed to the ICI safety practices and values (mean=5.3).

Table 4.10: Mean - Commitment

<table>
<thead>
<tr>
<th>Variables</th>
<th>Subsidiaries</th>
<th>Employees</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commitment</td>
<td>ICI Paints</td>
<td>61</td>
<td>5.9</td>
</tr>
<tr>
<td></td>
<td>Uniqema</td>
<td>36</td>
<td>6.1</td>
</tr>
<tr>
<td></td>
<td>National Starch</td>
<td>32</td>
<td>5.3</td>
</tr>
<tr>
<td></td>
<td>Esterol</td>
<td>23</td>
<td>6.2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>152</td>
<td>5.9</td>
</tr>
</tbody>
</table>

The Anova test in Table 4.11 below shows there are significant differences in safety commitment between the subsidiaries (f=8.5, p=0.00).

Table 4.11: Anova test between subsidiaries – Commitment

<table>
<thead>
<tr>
<th>Commitment</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>13.75</td>
<td>3</td>
<td>4.58</td>
<td>8.52</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>79.61</td>
<td>148</td>
<td>.53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>93.37</td>
<td>151</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The multiple comparison test using Bonferroni was conducted to determine which subsidiaries have significantly lower commitment to the safety values. The results presented in Table 4.12 show National Starch to be significantly less committed to the ICI safety values compared to ICI Paints (p=0.00), Uniqema (p=0.00), and Esterol (p=0.00). This suggests National Starch has lowest commitment of the subsidiaries.

Table 4.12: Multiple Comparison – Commitment

<table>
<thead>
<tr>
<th>(I) Company</th>
<th>(J) Company</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Lower Bound</td>
<td>Upper Bound</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICI Paints</td>
<td>Uniqema</td>
<td>-0.14</td>
<td>0.15</td>
<td>1.00</td>
<td>-0.55 - 0.27</td>
</tr>
<tr>
<td></td>
<td>National Starch</td>
<td>0.58*</td>
<td>0.16</td>
<td>0.00</td>
<td>0.15 - 1.01</td>
</tr>
<tr>
<td></td>
<td>Esterol</td>
<td>-0.32</td>
<td>0.17</td>
<td>0.43</td>
<td>-0.80 - 0.15</td>
</tr>
<tr>
<td>Uniqema</td>
<td>ICI Paints</td>
<td>0.14</td>
<td>0.15</td>
<td>1.00</td>
<td>-0.27 - 0.55</td>
</tr>
<tr>
<td></td>
<td>National Starch</td>
<td>0.72*</td>
<td>0.17</td>
<td>0.00</td>
<td>0.24 - 1.20</td>
</tr>
<tr>
<td></td>
<td>Esterol</td>
<td>-0.18</td>
<td>0.19</td>
<td>1.00</td>
<td>-0.70 - 0.34</td>
</tr>
<tr>
<td>National Starch</td>
<td>ICI Paints</td>
<td>-0.58*</td>
<td>0.16</td>
<td>0.00</td>
<td>-1.01 - 0.15</td>
</tr>
<tr>
<td></td>
<td>Uniqema</td>
<td>-0.72*</td>
<td>0.17</td>
<td>0.00</td>
<td>-1.20 - 0.24</td>
</tr>
<tr>
<td></td>
<td>Esterol</td>
<td>-0.90*</td>
<td>0.20</td>
<td>0.00</td>
<td>-1.44 - 0.37</td>
</tr>
<tr>
<td>Esterol</td>
<td>ICI Paints</td>
<td>0.32</td>
<td>0.17</td>
<td>0.43</td>
<td>-0.15 - 0.80</td>
</tr>
<tr>
<td></td>
<td>Uniqema</td>
<td>0.18</td>
<td>0.19</td>
<td>1.00</td>
<td>-0.34 - 0.70</td>
</tr>
<tr>
<td></td>
<td>National Starch</td>
<td>0.90*</td>
<td>0.20</td>
<td>0.00</td>
<td>0.37 - 1.44</td>
</tr>
</tbody>
</table>

* The mean difference is significant at the 0.05 level.

Newly Acquired Subsidiaries - The findings show that National Starch has significantly lower commitment to the parent's safety values and practices than the other new subsidiaries. This indicates that National Starch is facing higher challenges in
accepting the parent's safety values than the other subsidiaries.

*Old Subsidiary* - ICI Paints had longer exposure to the parent's safety practices, however commitment to the safety values is not significantly higher than all the new subsidiaries, but only when compared with National Starch.

Hence, the above findings partially support Hypothesis 2: *There will be less internalization of safety values among employees of the most recently acquired subsidiaries than in the less recently acquired subsidiary.*

**Hypothesis 3:** *In all groups there will be greater implementation and internalization of safety practices now than 3 years ago.*

This section compares the level of implementation now and 3 years ago between the subsidiaries to find out whether there is any significant change in co-workers' safety practices. The variables - Co-workers' safety now and Co-workers' safety 3 years ago were tested for implementation, however the variables - job safety and commitment - could not be used because data for these variables were not available. The time dimension '3 years ago' was not measured for job safety and commitment because it was anticipated that employees would find it difficult to recall them after 3 years. Table 4.14 compares the mean for implementation 'now' and 'more than three years ago' between the subsidiaries. The results in table 4.13 below show that overall co-workers' safety now has improved (mean=4.1) over the last three years ago (mean=3.5) at the Malaysian
subsidaries. In particular National Starch had also shown improvements on co-workers' safety now (mean=3.9) compared to 'three years ago' (mean=3.2).

Table 4.13 – Co-workers’ safety now and 3 years ago

<table>
<thead>
<tr>
<th>Variable</th>
<th>Subsidiaries</th>
<th>N (now)</th>
<th>Mean</th>
<th>N (3 yrs. Ago)</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-worker safety</td>
<td>ICI Paints</td>
<td>61</td>
<td>4.09</td>
<td>60</td>
<td>3.69</td>
</tr>
<tr>
<td></td>
<td>Uniqema</td>
<td>36</td>
<td>4.30</td>
<td>36</td>
<td>3.67</td>
</tr>
<tr>
<td></td>
<td>National Starch</td>
<td>32</td>
<td>3.94</td>
<td>32</td>
<td>3.32</td>
</tr>
<tr>
<td></td>
<td>Esterol</td>
<td>23</td>
<td>4.47</td>
<td>21</td>
<td>3.30</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>152</td>
<td>4.16</td>
<td>149</td>
<td>3.55</td>
</tr>
</tbody>
</table>

The paired sample t-test in Table 4.14 below confirms co-workers' safety in all the subsidiaries including National Starch is significantly higher now than 3 years ago (p=0.00). However, although National Starch had made significant improvement on co-workers' safety now, employees' perceptions of low job safety suggests that co-workers follow the safety rules to avoid the high risks at the work place. The low commitment (Table 4.10) at National Starch also suggests that although co-workers’ safety had significantly improved, however they still find it difficult to believe in the values of the practices.
Table 4.14 – Paired Sample T Test (Coworkers’ safety now and 3 years ago)

<table>
<thead>
<tr>
<th>Company</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference Lower</th>
<th>Upper</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICI Paints</td>
<td>.41</td>
<td>.81</td>
<td>.10</td>
<td>.20</td>
<td>.62</td>
<td>3.96</td>
<td>59</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.62</td>
<td>.69</td>
<td>.11</td>
<td>.38</td>
<td>.85</td>
<td>5.39</td>
<td>35</td>
<td>.00</td>
</tr>
<tr>
<td>Uniqema</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.62</td>
<td>.84</td>
<td>.14</td>
<td>.31</td>
<td>.92</td>
<td>4.17</td>
<td>31</td>
<td>.00</td>
</tr>
<tr>
<td>National Starch</td>
<td>.62</td>
<td>.77</td>
<td>.16</td>
<td>.81</td>
<td>1.51</td>
<td>6.91</td>
<td>20</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Esterol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Paired Samples Test

Paired Differences

<table>
<thead>
<tr>
<th>Company</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference Lower</th>
<th>Upper</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICI Paints</td>
<td>.41</td>
<td>.81</td>
<td>.10</td>
<td>.20</td>
<td>.62</td>
<td>3.96</td>
<td>59</td>
<td>.00</td>
</tr>
<tr>
<td>Uniqema</td>
<td>.62</td>
<td>.69</td>
<td>.11</td>
<td>.38</td>
<td>.85</td>
<td>5.39</td>
<td>35</td>
<td>.00</td>
</tr>
<tr>
<td>National Starch</td>
<td>.62</td>
<td>.84</td>
<td>.14</td>
<td>.31</td>
<td>.92</td>
<td>4.17</td>
<td>31</td>
<td>.00</td>
</tr>
<tr>
<td>Esterol</td>
<td>1.16</td>
<td>.77</td>
<td>.16</td>
<td>.81</td>
<td>1.51</td>
<td>6.91</td>
<td>20</td>
<td>.00</td>
</tr>
</tbody>
</table>
National Starch vs. Other Subsidiaries

A comparison was carried out between National Starch and the other subsidiaries. The group mean statistic results in Table 4.16 show National Starch to have lowest level of implementation (i.e. job safety and co-workers’ safety now) compared to the other subsidiaries.

Table 4.15: Implementation - National Starch vs. Others

<table>
<thead>
<tr>
<th>Implementation</th>
<th>N</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICI Paints</td>
<td>62</td>
<td>3.65</td>
</tr>
<tr>
<td>Uniqema</td>
<td>36</td>
<td>3.64</td>
</tr>
<tr>
<td>Esterol</td>
<td>23</td>
<td>3.57</td>
</tr>
<tr>
<td>National Starch</td>
<td>32</td>
<td>3.07</td>
</tr>
<tr>
<td>Total</td>
<td>153</td>
<td>3.51</td>
</tr>
</tbody>
</table>

The Independent Samples T test in Table 4.16 below confirms implementation is significantly lower in National Starch compared to other subsidiaries (p=0.00).
Table 4.16: Mean Independent Sample T-Test – National Starch vs. Others

<table>
<thead>
<tr>
<th>Group Statistics</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Safety</td>
<td>National Starch</td>
<td>32</td>
<td>2.21</td>
<td>.74</td>
<td>.13</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>120</td>
<td>3.03</td>
<td>.94</td>
<td>.08</td>
</tr>
<tr>
<td>Co-workers' safety (now)</td>
<td>National Starch</td>
<td>32</td>
<td>3.94</td>
<td>.79</td>
<td>.14</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>120</td>
<td>4.22</td>
<td>.73</td>
<td>.06</td>
</tr>
<tr>
<td>Commitment</td>
<td>National Starch</td>
<td>32</td>
<td>5.37</td>
<td>.97</td>
<td>.17</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>120</td>
<td>6.06</td>
<td>.66</td>
<td>.06</td>
</tr>
</tbody>
</table>

Table 4.17 below shows that job safety and commitment are significantly lower in National Starch than other subsidiaries. Co-workers' safety is partially significant (0.6) than others. Hence, the findings confirm that National Starch has lowest implementation and internalization than other subsidiaries.
Table 4.17: Independent Sample T-Test – National Starch vs. Others

<table>
<thead>
<tr>
<th></th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
<td>t</td>
</tr>
<tr>
<td>Job Safety</td>
<td>Equal variances assumed</td>
<td>4.29</td>
<td>.040</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>.49</td>
<td>.57</td>
</tr>
<tr>
<td>Co-workers' safety (now)</td>
<td>Equal variances assumed</td>
<td>.30</td>
<td>.57</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>.18</td>
<td>.82</td>
</tr>
<tr>
<td>Commitment</td>
<td>Equal variances assumed</td>
<td>3.00</td>
<td>.08</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>3.75</td>
<td>.75</td>
</tr>
</tbody>
</table>
National Starch seemed to be making little progress and lagging behind the other subsidiaries. Uniqema had started higher than the other new subsidiaries but made little progress. Esterol had started low but had significantly improved over the last 3 years, and overtaken the old subsidiary ICI Paints. ICI Paints had started higher than the new subsidiaries but was not able to sustain it. Thus, the findings indicate that the subsidiaries had achieved different levels of implementation over the last 3 years. Hence this partly confirms Hypothesis 4: In all groups there will be greater implementation and internalization of safety practices now than 3 years ago.

Summary

The general picture that emerges from the analysis is that implementation in National Starch is lower than other subsidiaries. It also shows that the old subsidiary (ICI paints) began with higher implementation, but has been caught up by Esterol. Implementation in Uniqema is slow and making little progress. Overall employees' perceptions of implementation are moderately positive. Reported commitment to safety values was fairly high, although lowest in National Starch. However, employees' perceptions of job safety were fairly negative in all subsidiaries. Again the most negative attitudes were found in National Starch. Employees mostly report themselves as committed to and implementing the safety practices (as they understand them), however, they had negative perception of the safety climate in which they work. Overall the findings indicate that National Starch had lowest implementation, lowest internalization and worst safety
environment. This will become the focus for further investigation in the qualitative section of this chapter.

National Starch is 'Brownfield' company. It was founded by a group of local Chinese businessmen in Kuala Lumpur. The company started its humble beginning as a small medium enterprise (SME) before its acquisition by an American MNC and later ICI. The findings show that National Starch is faced with higher normative and cultural-cognitive pressures from the local institutional environment.

ICI Paints (Old Subsidiary) had started as a 'Greenfield' company. It was established as a business subsidiary of the U.K. parent company more than 50 years ago. The findings show higher implementation to the OSH practices than other subsidiaries indicating strong identification with the parent company.

Uniqema and Esterol are neither 'Greenfield' nor 'Brownfield' companies. They were established as business subsidiaries of foreign MNCs and were later acquired by ICI. The findings indicate Uniqema and Esterol have lower implementation than ICI Paints but higher than National Starch (although they seem to be catching up with ICI paints over time). This indicates the subsidiaries have less identification with the parent company than ICI, but over time may move towards closer identification.
CHAPTER 4 – ANALYSIS AND RESULTS (PART 2)

Introduction

This section analyzes the qualitative data to identify patterns of behaviors or characteristics that support the quantitative findings. The qualitative analysis focuses on behaviors and their influences to the transfer and adoption of practices. The quantitative analysis had indicated National Starch to have lowest level of implementation, lowest level of internalization and worst safety environment compared to other subsidiaries. This suggests that National Starch is facing stronger challenges than other subsidiaries to implement the practices. This section analyzes the qualitative data to identify the issues that impede the process of implementation and internalization at the subsidiaries, in particular National Starch. This section is organized into four parts: Methods and procedures for qualitative analysis, overview of the host country institution, overview of the company, analysis and results.

Framework of Analysis

Applying theories is equally important in this approach to qualitative analysis since the theoretical framework helps to unpack the data and focus on key issues that relate to the
research questions. In applying a theoretical framework, the researcher was able to view the issues from different perspectives at multiple levels to analyze and interpret the data. In this case study, the institutional pillar and carriers' model (Scott, 2000) was applied as a theoretical framework to analyze and interpret the data. While the thematic analysis method was used as a process of analyzing and mapping the data, the theoretical framework investigates in-depth the processes in which the practices were being implemented and internalized. At the broader level, the theoretical framework examined the interplay between the regulative, normative and cultural-cognitive pillars within the context of dual institutional environment, to unpack the factors that impede adoption. The analysis examined the process of transferring the OSH practices by the western U.K. parent to the Malaysian subsidiaries, and employees' responses to the practices within the context of host country institutional environment. The transfer of practices involved was analyzed through the regulative pillar, i.e. the imposition of policies, rules, procedures and sanctions by the parent company. The adoption of practices i.e. employees' perceptions of the practices, interpretations on the meanings of the practices and practice behaviors were analysed through the normative and cultural-cognitive pillars of the local institutional context. Practice behaviors were then compared with the wider external environment to look for common patterns, or homogeneity of behaviors. In view of institutional differences between the Malaysian subsidiaries and the U.K. parent company, the qualitative analysis looks for differences in interpretations of meanings and the underlying causes affecting behaviors. Thus the theoretical framework helps to identify the opposing factors that impede implementation and internalization at the Malaysian subsidiaries.
Procedures

Transcription: The first step of the qualitative analysis was to transcribe the data. The data transcription was 'verbatim', retaining the information needed in a way that is 'true' to its original nature. The transcription was frustrating at times as the tapes had to be replayed several times to listen closely to the interviewees, and to make sense of what they said. However, the time spent in transcription is not wasted as it helped the researcher to develop a thorough understanding of the data through having transcribed it. The close attention to the data facilitated close reading, as well as familiarization of data. Using QSR software, the interesting features of the data were coded systematically across the entire data set, collating data relevant to each code, and then collating the codes into potential themes. The themes were reviewed and checked in relation to the coded extracts (level 1) and the entire data set (level 2), generating a thematic 'map' of the analysis. The themes were continuously refined based on the overall story the analysis tells, generating clear definitions and names for each theme. The final analysis involved selecting vivid, compelling extract and examples of selected extracts in relation to the research question and literatures.

Theoretical Framework: The second step of the analysis was to apply the theoretical framework for further examination of the data. After the themes have been identified, the data was fitted into the theoretical framework for further analysis and interpretation. Using the concept of institutional pillars and carriers (Scott, 2000), the study analyzed the various levels of carriers - symbolic systems, relational systems, routines, and artefacts -
within the context of the regulative, normative, and cultural-cognitive pillars of the local institutional environment. The symbolic system represents the cultural rules, beliefs and values, as well as symbolic schemata of the local institutional environment. The symbolic system was examined from two angles - the external cultural system and the internal cognitive belief system. These systems are carried in the minds of the individual employees, which exist as values and belief systems of the population at the subsidiaries, who were mainly from the Chinese and Malay ethnic groups. The interpretations of data were considered in relation to local cultural norms: Chinese Confucian values for the mainly Chinese managers and the Malay Budi values for the mainly Malay workers. The analyses are made within the context of regulative, normative and cultural-cognitive pillars.

**Institutional pressures**

The empirical study in this thesis is concerned with the foreign subsidiaries of a U.K. MNC located in Malaysia, thus it is important to consider the host country institutional context.

**National Context**

*Historical Background:* The host country Malaysia was previously known as Malaya, a Pacific Rim nation that lies in a well-travelled ancient trade route, which for centuries
has been traversed and dominated by several nationalities (Malaysian Review, 2005). The formal state was established in 1400 as the sultanate of Malacca. It developed into a rich and powerful trading centre, which soon drew the attention of the Europeans. In 1511 the Portuguese conquered Malacca and established the Malay Peninsula. In 1641, the Dutch took control, followed by the British in 1815, and the Japanese in 1942. After World War II, Malaya became a protectorate of Britain until 1957, when it was granted independence. The British colonization of Malaya had significantly influenced the political, economic and social landscape of modern Malaysia. British administration in Malaya (now Malaysia) was established after 1874. In the late 19th century the models for successful colonial development were those systems in which a large peasant population produced raw materials for the world market (Kratoska, 1982). Malaya then lacked the population to produce raw materials and the British began importing Chinese and Indian laborers. By 1921 Indians and Chinese immigrants constituted 49.5% of the population of British Malaya. The British administrators established a high degree of ethnic specialization in which rice planting was almost exclusively done by Malays, tin mining employed mainly Chinese labor, and Indians predominated on rubber estates. By 1921 and 1930 tin and rubber accounted for almost 60% of Malaya’s exports. The British had in fact established a plural society in which the different ethnic groups - Malays, Chinese, Indians and the British, each play a separate but complementary role within the economy. The British performed the role of government assisted by the Malay aristocratic elites, the Malay commoners were peasant farmers confined to the rural areas, the Chinese oiled the wheels of the economy by controlling the tin mines and market place, while the Indians provided the essential services of working in the plantations (C.W. Watson, 1996). With
the division of occupation, the different ethnic groups had in common only the fact that they live in the same country since in race, religion, language, culture, economic interests, their outstanding characteristic is not unity but profound diversity; and this diversity continues to be evident in Malaysia today.

**Political:** The independence of Malaya in 1957 had brought about nationalistic feelings and intense identification between the major ethnic groups. The *Barisan Nasional* (National Front), the country's major political organization has been in power since the country's independence in 1957. The *Barisan Nasional* (then known as the *Alliance Party*) comprised of three political parties representing the major ethnic groups: United Malay National Organization (UMNO) the dominant political party that represents the Malay ethnic group, the Malayan Chinese Association (MCA), that represents the Chinese ethnic group, and the Malayan Indian Congress (MIC), that represents the Indian ethnic group. Despite the united political front, there is still the issue of communal divisions of ethnic groups, which have often resulted in contestations, as well as encouraging compromise (Lee, 2000). There is a controlled and tolerable tension as the needs of the two major ethnic groups, the Malays and the Chinese are met in important ways where there are spaces for each ethnic collective to exercise its dominance and power (Joseph, C., 2006). The racial riots on 13 May 1969, which was a significant event in the nation's ethnic politics, are now accepted as antecedent of Malaysia's present day political and cultural manifestations (Andaya and Andaya, 2001).
Social: Malaysia now comprised of four major ethnic groups: Malays (Bumiputra), Chinese, Indians and others (Malaysian Review, 2005). According to the Malaysian department of statistics report 2006, the total population as of June 2006 is 26.4 million. Based on the census carried out in 2000, the Malays, or the indigenous (Bumiputra) group are the largest (65.1%) as well as the most homogeneous ethnic group in the country in terms of culture, language and religion. The second largest ethnic group is Chinese, consisting of 26% of the population. The third largest ethnic group is the Indians, which formed 7.7% of the population. The term ‘Bumiputra’ refer to the indigenous people of Malaysia, which comprise of the indigenous Muslim Malays from Peninsular (West) Malaysia, and the indigenous Christian non-Malays from the states of Sabah and Sarawak (East) Malaysia in Borneo. The indigenous non-Malay Bumiputras comprised of the Kadazans, Ibans, Dayaks, Melanaus and other indigenous people from the Eastern Malaysian states of Sabah and Sarawak. For the purpose of this thesis, the term ‘Malay’ represents the indigenous Muslim Malays (Bumiputra) in Peninsular (West) Malaysia, in which the foreign subsidiaries are located.

Regulative System

The Occupational Safety and Health Act, 1994 (OSHA, 1994) legislation was established in 1994 to regulate the safety and health practices in Malaysia. OSHA 1994 derived from the philosophy of the Roben’s Commission and Health & Safety At Work Act 1974 in UK, in which the employer’s duties include the provision of a safe system of work,
training, maintenance of work environment and arrangement for minimizing the risks as low as reasonably practicable. OSHA emphasizes that the responsibility of occupational safety and health rest on those who create the risks (employers) and those who work with the risks (employees). The Department of Occupational Safety and Health (DOSH) is responsible for ensuring the occupational safety, health and welfare of people at work as well as protecting other people from the safety and health hazards arising from the activities of the industrial sectors. However, enforcement by DOSH is weak, due to the lack of manpower and inexperienced officers:

ICI SHE Regional Mgr Asia: “I think the enforcement is weak at the moment in Malaysia, but the rules to the legislation generally are there although the enforcement is not good, partly due to not enough resource I think, or not enough inspectors ... secondly quite a few of the ones I have seen are very young and inexperienced..." (Lines 241-245)

Manager, National Institute of Occupational Safety and Health (NIOSH): “In DOSH their manpower is limited, their expertise is also limited. Traditionally DOSH is known as the Department of Machineries so all the enforcement officers were engineering graduates, that was fine when inspections were limited to machineries but when DOSH has expanded to occupational safety and health they need doctors, people from agricultural background, people from other different industries..." (Lines 165-173)
Representative, Trade Union: "...there is lack of enforcement due to the fact that the government do not have enough staff..." (Lines 187-189)

The Social Security Organization (SOCSO) which administers the employment injury scheme (including occupational diseases) and the invalidity schemes to compensate Malaysian workers reported there were 95,006 incidents (1.9%) in 2000 compared to 69,132 incidents (1.5%) in 2004 (reported accidents against the workforce). The number of permanent disability had increased from 20,009 cases (21.1%) in 2000 to 22,505 cases (32.6%) in 2004 (reported permanent disability against incidents). The number of deaths had also increased from 991 people (1.04%) in 2000 to 1,256 people (1.8%) in 2004 (reported deaths against incidents). In financial sense, the compensation paid out by SOCSO had increased from RM608,311,584 in 2000 to RM835,512,732 in 2004. In a speech by the Minister of Human Resource (New Straits Times, 21/12/04) it was announced that the occupational accident frequency rate in Malaysia for the year 2004 is 7.4 accidents per thousand workers, which is higher compared to the international yardstick of 4 accidents for every 1000 workers used by developed countries. (Appendix 4.6 and 4.7)

Given known significant under-reporting, the true figure is likely to be much higher. Under reporting, is more significant in the informal and small and medium sized industries, where workplace tend be more hazardous and OSH awareness is low (Ng, 2001a). Under the OSHA, 1994, medical doctors are required to report to DOSH,
however under reporting continues. The shortage of trained safety officers at the local companies also contributes to under-reporting of practices:

Officer, Trade Union: "... even though one knows about this but one would not take it up e.g. the safety officer would be aware of it but he may not take the trouble to bring it up. He won't go into the trouble of bringing it up because it is more work for him. In the private sector it is always lean, one person does a number of work so you don't have time to do it ...sometimes you intentionally decide to overlook it because you don't have the time to do it". (Lines 379-386)

The SOCSO statistics for 2004 reported that a total of 335,335 employers from MNC and SME companies were registered as active contributors to the SOCSO Scheme. However, the number of active employees registered was only 4,567,365 or 40% of the total workforce (1,011,562 persons) in the manufacturing sector, indicating a large number of the workforce is not protected under SOCSO scheme. This is despite the fact that the level of hazards in the manufacturing sector is high compared to other industries. In terms of injuries (26,690 cases) and fatalities (5644) the manufacturing recorded the highest compared to other industries (Appendix 5, Table 5.2). These figures indicate the lack of positive attitude given towards occupational safety and health practices by most local companies.
OSH Practices – Local Companies

Most local companies in the manufacturing sector comprised of small medium industries (SMI) and small medium entrepreneurs (SME). In a survey conducted by the National Institute of Occupational Safety and Health, the majority of local companies are either not aware of the existence of OSH legislation or if they do, are not fully complying with the regulations (NIOSH Report, 2000), reflecting their attitude towards the safety practices. Besides, most of the local companies are new to the concept of occupational safety and health, thus they were not familiar to the practices.

Representative, Trade Union: “Sometimes even if they give attention it is not sincere, for example the establishment of committee. They establish the committee because of the requirements of the law, and then they don't allow the committee to function. A committee must meet at least once in 3 months but the committee doesn't meet even in a year. Another example in certain cases it is very clear that they would have to provide some personal protective equipment e.g. mask, glove what they do is they provide them with the cheapest one available. So it may not be actually effective for instance the mask, they might be inhaling the toxic and once it wears off lets say in two months, it tears for example, they (management) don't replace they will probably do it after one year, or sometimes in some cases once given that's it, they are not responsible any more. Its a lifetime if for instance they give you boots once after that they don't give you again until your career ends.” (Lines 174-351)
Most local companies see occupational safety and health as affecting the company's productivity and profits. The companies have low priority for safety, which is reflected in the low operating budget and small budget to implement the practices.

Marketing Director, National Starch: "Attitude, it is basically attitude and the mentality I think, it is the mentality ... so I think for the local organizations it is the way they are — it is inherited, you know my father did it that way so what is wrong? They were brought up that way, you see. I believe they want to change but don't know how ... (Lines 154-165)"

Manager, (NIOSH): "... from what we have seen it all boils down to costs, the cost factor is always there. We have actually given free training to SMIs even then it was very difficult to get them to participate although it was free ... on the part of the employers, they themselves are not that well versed with OSH ... Another part is that they are looking at the productivity of the company, in the sense that if they were to send people for training for 2 days they would loose their targets even though we give the training for free and they don't have to pay for training, but for them they would loose out on productivity because 2 or 3 people will be out of the plant ... the feedback that we got from the people who were actually doing the marketing of these courses were like these are hard nuts to crack to put it bluntly. The main reason they give was the cost factor, they can't afford to let people go for training for more that one or two days ... because to them the return for safety is not immediate ... the returns is like in 2 years time or when the accident happens so the direct relation between spending and income is not there..." (Lines 31-63)
Representative, Trade Union: "SMEs are the people who don't want to spend money for the frills of it. If they can produce particular items for 20 cents and if they include OSHA practices and the products become 30 cents why should they do it? So they are very profit focused and they keep safety and health out. Of course safety and health practices mean money, it is a lot of money but then they should see that there is an investment just like buying a machine for producing products but they would not look at it that way, so the issue of compliance." (Lines 174-186)

**OSHA Practices - Multinational Companies**

Most rich multinational companies invest highly in occupational safety and health practices and regard the practices as important to the company's business objectives. They have bigger budgets to support the practices indicating high importance placed on the practices.

**SHE Advisor, British Petroleum (BP):** "For example the oil companies, where we are also part of the parent company and also multinationals where safety and health are taking very seriously. For them safety and health are to make sure that the profit that we make stays and maintained for the development of the country or the organization. If there is an accident it will have to come out from the profit to rectify the accident. They will have to pay for the costs. No organization has the budget for accidents they have budgets for safety and health campaigns but not for accidents. So as a result what is
happening here we have a situation where all the multinationals have a leading role or led the way very far compared to the other SMls or smaller companies because we invest on safety and health. So our right now we have already switched over from objective ...Competitiveness is about productivity and how are you going to be competitive? You cannot be competitive if you have very poor health and safety records, people getting sick and people getting injured you cannot proceed. So we want to relate to you occupational safety and health is a business option, its not an option anymore where you have to put money on a cost factor. The cost factor is gone long ago nowadays its business option, how does it relate to business option? Any accident that happens you have to take from the profits to rectify and correct the problem is no one is going to give you the budget to correct the accident so it is quite different.”  (Lines 91-205)

Production Mgr, National Starch: “You see for the multinationals it is different, when they invest, they put their investment in the country and of course they will do the justifications to make sure that their operations will be profitable. They can estimate the cost of running their operations from their experiences in other countries. That cost is inclusive of safety as well, so for them once they set up the company in the country they have no problem in investing the money in safety. It is part of the cost already since everything has been calculated. Once they set up they take into consideration the safety in terms of all costs. For the local entrepreneurs they are different, they started from ‘0’ and they have no base so when they start they have to think about profitability and they try to make profit, but some of them maybe they are withdrawing too much from the company that they set up. Sometimes when they make profits they just take it out and use
it as their personal wealth and then leave the company with very, very little, nothing much in there so how can they talk about building safety?" (Lines 161-175)

Supplier, Federal Metal Products (FMP): "...some of our customers are multinational and some are very Chinaman - local, so we can see the difference. If we go in to the multinationals companies in terms of safety and health they are well taken care of ... for the SMEs, the small scale operators, for them not much of attention is given to this area."

Most contract workers from local companies ignore safety rules when working in the company's premises, reflecting the attitude of local contractors towards safety:

Technical Mgr. Uniqema: "I think the culture of contractors is the main issue, for them it is purely money and to get the business here, so they come in. For those people who come in there are a lot of complications here so they commit them on and off, which are our main concern. For them is money. Yes they have the awareness but it is only 60%. You get people coming in and smoke. They do understand but they do it in secret places behind the big (volatiles) tank. We do catch people and we even warn companies. (Lines 39-51)

HR Manager, Esterol: "Sometimes they are very good these people, when they walk on the plank they are supposed to hook the safety harness but they just placed it on them but
did not hook it so the guys normally they observe and they take a photograph and give a memo to the project manager, at what time etc I found this contractor not complying."

(Lines 88-93)

Technical Manager, ICI Paints: "...90% of the time when I go out to deal with complaints by the customers it is not to do with the products ... it is because they (contractors) didn’t apply the paints correctly ...they didn’t follow our guidelines, or they mix our paints. You know they have adulterations going on, they buy our paints and they mix some powder inside so that they can go further. Instead of using 2 drums they used 1 drum not knowing that you cannot tamper the formulation. I mean we have formulated the paints in such a way that everything is sufficient but if you keep on adding the powder there is nothing to bind the paint. You need resins in order to bind the paints, so without that the paints will disintegrate prematurely and they blamed it on the paints. Sometimes when we were called in we have to do a lot of tracking and we are guilty until proven. The painters here are different ... they just couldn’t care less, that’s how they survive by undercutting, by short changing ... " (Lines 266-298)

The above indicate there are some similarities in safety behaviors with the local company and the newly acquired subsidiaries. They share similar characteristics, for example most do not fully comply with the OSHA legislations. Another common trait is high concerns for costs, which is reflected in the cheap and low quality safety equipment they provide to employees. Besides, the companies share high concerns for productivity and avoid sending their employees for safety training to ensure productivity is not disrupted.
Normative, Cultural Cognitive

There are two dominant cultures in Malaysia - Malay and Chinese cultures. The Malay cultural value system is encapsulated in the Budi complex (Tham, 1971; Dahlan, 1991). The Chinese value system is embodied in Confucianism (M.L. Storz, 1999). Although the Confucian and Budi values systems have some commonalities however, there are also strong differences.

Malay 'Budi' Values

The 'Budi' complex is composed of virtuous qualities such as 'murah hati' (generosity), 'hormat' (respect), 'ikhlas' (sincerity), 'mulia' (righteousness), 'timbang rasa' (discretion) and 'malu' (feelings of shame at collective and individual level), which are typified by refinement, politeness and consideration for others (Dahlan, 1991). The more important Malay cultural ideals are being considerate and protective of other people's feelings, showing respect and deference to parents, leaders, and old people, the cultivation of mutual kindness and gentleness, and being well mannered and well spoken (Goddard, 2001). One of the prominent characteristics of Malays is not to say anything that may hurt others' feelings (sensitivity for others) and are thus prone not to criticize others openly (lack of openness), which is also part of the Islamic ethical teaching (Mastor et al., 2000). Malays are usually portrayed as polite (symbolizing 'respect'), self-effacing (symbolizing 'humility'), and avoiding open conflict wherever possible (Crouch 1996). There is a high sense of 'shame' (malu), which is characterized by high
concerns of others' perception of one's self as it affects one's dignity, which is also a common characteristic of a collectivist society (M.L. Storz, 1999). The 'Budi' values have a significant impact on workers' behaviors in local organizations.

**Chinese 'Confucian' Values**

The *Confucianism* value system had for centuries influenced the thinking and behaviors of the Chinese in Malaysia affecting the way they operate businesses (Storz, 1999). A significant aspect of Confucian ideologies is society, which is seen as a higher pyramid of social roles governing how people should act and behave. This belief is based on the political context of differentiation of one's position in a hierarchy, which reflects sensitivity to hierarchy, an important *Confucian* value (K.F. Pun, 2001, Martinson, 1996; Redding, 1993). The high importance placed on conformity and acceptance of social roles, which set forth principles that define appropriate individual behaviors in relation to others in a social hierarchy (Berling, 1982). This is characterized by tight rules, close monitoring and high emphasis on end results (K.F. Pun, K.S. Chin and H. Lau, 2000). Another significant aspect of Confucian ideologies is 'relationship', which is linked to the Confucian principle of *Quanxi*, or networking (Luo, 1997). Relationship is also about establishing close networking with the customers to achieve long-term mutual gains (Arias, 1998; Luo, 1997). A central principle behind *guanxi* is mutual-gains for both sides, which stressed on the establishment of a connection between two independent individuals to enable a bilateral flow of personal or social transactions (Watt, 1999). In this sense, both parties must derive benefits from the transaction to ensure continuation of
the relationship, which must be nourished and maintained over time. An important aspect of *quanxi* is related to 'wealth', thus profits consideration go hand in hand with business activities. Another important aspect of Confucianism is 'thriftiness'. It is typical for Chinese managed companies to be thrifty and apply tight control on budgets to focus on low cost inputs in manufacturing (Carney, 1998). Thus in Chinese managed organization, it is common to be thrifty to minimize operational expenses. Confucian ideology placed importance on humanity/benevolence, which is characterized by high consideration and sensitivity for 'face' (Watt, 1999).

The differences ethnic cultural values had led to differentiation between managers and workers in Malaysian organizations.

**Parent Company**

The case study focuses on the Malaysian subsidiaries of a U.K. multinational company (MNC), Imperial Chemical Industries (ICI U.K PLC). The company (ICI PLC U.K) also known as the ‘parent company’ is based at the company’s headquarters in the U.K.

ICI (Imperial Chemical Company) was formed in the U.K. in 1926 with the merger of four large chemical companies. In 1993 ICI demerged its bioscience business to publicly-listed company Zeneca (later AstraZeneca PLC) to concentrate on its chemical and paints businesses. The huge majority of the industrial chemicals portfolio: polyester, chlorochemicals, fertilizers, titanium dioxide and petrochemicals businesses were divested in
1997. As part of its repositioning strategy, the Group acquired Unilever’s Speciality Chemicals division in July 1997. Unilever comprised of four businesses: National Starch and Chemical, Quest International, Unichema and Crosfield adding to its specialty products and paints businesses. The acquisitions and divestments formed part of the Group’s strategy to reposition its business towards the manufacture of products to meet specific customer needs.

ICI is one of the world’s major specialty products and paints businesses. Based on the company’s report (2005), the group has 50,000 product ranges with annual sales of almost £5.8bn. The company develops, manufactures and markets their products to the consumer and industrial markets. Its key products are decorative paints, industrial adhesives, modified starches, fragrances and flavors. Its key markets include architectural coatings, home and personal care, food, packaging, and electronics, with particular geographic emphasis on Asia. At the time of data collection, ICI was organized into four business subsidiaries:

- ICI Paints - decorative and packaging coatings
- National Starch - specialty starch and synthetic polymers
- Uniqema - specialty oleochemicals and surfactants
- Esterol - flavors and fragrances
Regulative

*Occupational Safety and Health Policy*

ICI complies with the UK Combined Code on Corporate Governance and the U.S. Sarbanes-Oxley Act, which stressed on the importance of Occupational Safety and Health (OSH) performances. The ICI Sustainability Policy addresses the direct impact of the external environment against the company's manufacturing operations, its relationships with employees, suppliers, customers, the communities, and product stewardship across the supply chain. Safety, Security, Health and Environment (SSHE) is an important component of the ICI Sustainability Policy, which protects the company from exposed risks that may hinder its business objectives.

The SSHE Policy sets out clearly the company's stand on safety, health and environment performances (Appendix 4.1). The OSH policy is part of the Security, Safety, Health and Environment (SSHE) Policy. The Policy is mandatory to all the ICI companies, its worldwide subsidiaries and businesses. They are expected to operate based on SSHE global standards, the minimum standard of which is based on the local laws of the country in which they operate (Appendix 4.2). The ICI companies and subsidiaries are expected by the parent company to meet as a minimum standard, the local OSH laws of the country in which they operate. The Company views the OSH practices as an important business strategy in the delivery of its products to customers. The significance of OSH to the company's business is spelt out in the company's vision statement.
(Appendix 4.3). As a minimum standard of practices, the Malaysian subsidiaries are expected to meet the requirements set by the Occupational Safety and Health Act, 1994 (OSHA), which is regulated by the Department of Occupational Safety and Health (DOSH) Malaysia.

Transfer of Practices

The ICI Board is responsible for maintaining and reviewing the effectiveness of the Group’s system of internal controls, including occupational safety and health practices. The Audit Committee supports the Board to monitor and assess the company’s Internal Control Process in identifying and managing risks. The Company sets high standards on the implementation of the occupational safety and health practices, which are set out under the Safety, Security, Health and Environment (SSHE) Standards. Internal and external auditors constantly monitor the OSH performance standards through audit checks at the subsidiaries and submit the report to the headquarters. Performance reporting includes performance against objectives and compliance against OSH requirements. Each subsidiary is expected to achieve a set of OSH targets based on the 5-year challenge goal. Every five years the headquarters sets objectives and improvement milestones for the ICI companies and their subsidiaries to achieve. The five-year challenge program started in 1990. It focused on environmental issues, setting standards for new plants and targets for waste reduction, energy efficiency and recycling. The company sets higher challenging targets every 5 years, which are more demanding than its predecessor covering a broader range of issues. The OSH annual targets are based on a
5-year target. The managing directors of the subsidiaries are given the mandate to achieve the targets in line with the 5-year challenge goal. The targets are further broken down into individual performance targets and monitored yearly through the performance management system. The performance targets are related to pay and performance bonuses. The Responsible Care Management System (RCMS), which was developed jointly by the international and regional businesses and the corporate staff, documents all aspects of health and safety practices, including environmental protection, product stewardship, community awareness, processes, equipment and safety issues. The RCMS Lotus Notes database is a management system that forms part of the Responsible Care Database.

Adoption of Practices

This section focused on two aspects of adoption at the Malaysian subsidiaries – implementation and internalization. The institutional pillars and carriers model was applied to examine the process of implementing and internalizing the practices at the subsidiaries. A multiple level approach was used to analyze the subsidiaries. The first level of analysis focus on the symbolic systems to examine how managers interpret the practices from the perspective of local cultural values to view shared conceptions and the frames through which meaning is made. The second level of analysis focuses on the relational system, which is characterized by the power system. This section examines the approaches used by management to enforce the practices focusing on monitoring and control (including training, discipline and performance incentives) and the development
of safety behaviors. The third level of analysis examines the routines, which is characterized by daily work routines and tacit knowledge in relation to the practices. This includes examining workers’ perceptions of the practices, safety attitude and behaviors. The fourth level of analysis examines the artefacts, which is characterized by the number of ISO certifications and CEO awards that the subsidiaries had achieved in relation to the OSH practices.

The Malaysian subsidiaries - ICI Paints, Uniqema, National Starch, and Esterol, are owned by ICI (Malaysia) Holdings. The company was established as a wholly owned company of ICI UK in the 1950s. It was then a leading global player in the heavy chemical industry. ICI (Malaysia) Holdings is jointly owned by ICI PLC U.K. (60%), and Permodalan Nasional Berhad (40%), the Malaysian government’s investment arm.

**Old Subsidiary**

ICI Paints (‘old’ subsidiary) was incorporated in 1959. At the time of establishment, the subsidiary was fully owned by ICI UK, then a leading global player in the heavy chemical industry. The company reports direct to the Asia Business Region, whose head office is in Singapore. ICI Paints is coatings company that is involved in the manufacturing and sales of coatings products for the Malaysian domestic market. Its leading brands: Dulux, Maxilite & Glidden dominate 40.0% of the market. It is the biggest Decorative and Packing coating company in Asia (outside Japan) with an annual turnover of more than RM 180 million (£32 million). The subsidiary’s manufacturing site
is based in Nilai, Negeri Sembilan about 80 miles from Kuala Lumpur, capital of Malaysia. The company employs a total of 218 employees at its manufacturing site.

'Newly Acquired' Subsidiaries

The newly acquired subsidiaries comprised of Uniqema, National Starch and Esterol. These subsidiaries used to belong to UniJever, a U.K. multinational company. They were acquired by ICI in 1997 as a result of a major restructuring exercise.

National Starch

The Company was established in Kuala Lumpur in 1975, and was originally known as Adhesive Malaysia. In 1995, Adhesive Malaysia was bought over by National Starch, and was then known as National Starch Chemical Malaysia. The company became part of National Starch Chemical U.S. which was then owned by Unilever, a multinational company. In 1997 Unilever was bought over by ICI UK, and National Starch became one of the ICI companies. National Starch is located at its manufacturing site in Shah Alam, which is about 40 miles from the city of Kuala Lumpur. National Starch Malaysia reports to the Asia Pacific regional office in Singapore, who reports directly to the headquarters in the U.S. The company is involved in the manufacturing and marketing of specialty starch and synthetic polymers. It employs 232 employees at its manufacturing site.
Uniqema

Previously known as 'Unichema', the company was part of the Unilever group, and was merged with ICI Surfactants, a subsidiary of the ICI group of companies in 1997. Uniqema focuses on the lubricant business, involved in the manufacturing and marketing of specialty products such as oleochemicals and surfactants. Located in Klang, which is about 60 miles from Kuala Lumpur. The company employs more than 100 employees at its manufacturing site.

Esterol

The company was formed initially as a joint venture company comprising Eastman Chemicals, Quest International and a local partner, Kuala Lumpur Kepong Bhd. In 1994 the joint venture company was formed to manufacture food emulsifiers mainly for the export market. The plant was built at the Bukit Raja site in Shah Alam (formerly under Klang district) in 1995. In 1996, Eastman Chemical decided to divest its shareholding to Quest International a subsidiary of Unilevers. In 1996 Quest was acquired by ICI Malaysia and Esterol became part of the ICI Company. The company is engaged in the production of food emulsifiers. It employs a total of 71 employees.
Normative, Cultural-Cognitive

Perception and Behaviors - (Managers)

*Symbolic System*

This section examines the managers' perceptions and behaviors that influence the implementation of practices at the subsidiaries.

*Legislation*

Senior Managers at the old and new subsidiaries perceived the OSH practices as a set of 'legislations' mandated by the parent company dictated through the company's mission statement and the SHE policies governing how the subsidiaries should operate their businesses. They see the mandates as an important business strategy to which they were obligated to comply.

*Production Manager ICI Paints: “...you find that ICI (parent) is dictating a lot of things that we do ...” (Lines 32-33)*
SHE Manager, Esterol: "...the first thing that they (parent) did was to impose safety rules..."  (Lines-68)

Production Manager, National Starch: "...in our SHE policy and even in National Starch mission statement... SHE is very important...” (Lines 16-18)

HR Director, Uniqema: “The business, product stewardship everything falls under safety, health and environment rules ...”  (Line 194)

The senior managers also perceived the OSH practices as 'laws' mandated by the government to which the subsidiaries must conform to avoid the risks of business closures. They see the practices as critical to the company’s long-term existence in the local environment:

SHE Regional Manager, Asia Pacific ICI Paints: “Basically if we don't follow any safety, security, health and environment what is going to happen is that people will get killed, they will pollute the environment, we upset the local authority, we will get bad publicity and if we are really bad then we will close down. You know the government will say you are too dangerous, you do not have a lot of right to continue operating.”  (Lines 172-177)

HR Director Uniqema: “We ask ourselves what are the things we do? ...so we have a team of people going out talking to people, the villagers, local councils ... finally they
realize if there is any accident...if something like that happens... how is this community going to be affected? ... not only that we have a problem in our factory...” (Lines 125-134)

Production Manager, National Starch: “Not only the product but if something happen and then we are very serious if lets say we are not care about the environment, we discharge our waste water to the public drain it goes to the river it kills the fish, what will happen from the regulatory body what will they do for you and stop operation of this plant, you cannot operate anymore, I mean that is the more serious scenario, more for the business. If you want to continue to run the business for years we have to make sure this thing do not happen. (Lines 27-34)

Ethical values

Managers perceived the practices represent the company’s ethical values. They believed they have a moral responsibility to protect employees’ life:

General Manager, Esterol: “We say in the end we emphasize on safety employees feel that we are really being valued because then the employer really value them as a human being, not just wanting to come here and work for money I think that is also very important.” (Lines 204-207)

Production Manager, Paints: “You talk about ethics, how we conduct the business in terms of integrity, in terms of confidentiality, in terms of professionalism so that to the
outside world ... there is only one single picture ... we should give the impression that ICI
is a good company to work with, there is no unethical behavior. I think that stands to the
outside world....” (Lines 17-23)

Instrumental Values

Managers perceived the practices as a means to achieve business success. They see the
practices as an important strategy to the company’s achieve business success indicating
higher importance place on instrumental value rather than on the safety value:

Finance Manager, ICI Paints: “As you know ICI is very, very serious about SHE values
because for us the fundamental principle of SHE is that it is the ‘license to operate’ what
it means is that is we cant manage SHE there is no reason for us to be in business.”
(Lines 8-11)

General Manager, Esterol: “...this is branding power ... it is the base, I believe the
perception is also that if you can work safely, you can get a good product out of the line.
You can tell people that my company work safely and is environmental friendly, these are
all added marketing tools. Something else to say when you are selling things” (Lines
195-197)

Human Resource Director, Uniqema: “...we all work for the customers...if you are not
doing something for the customers then you must ask yourself why are we doing this?
...the customer overrides everything else...no. 1. Everything we do the question we need
to ask is...is this going to help the customer? If that's what we want to follow through then whatever we deliver in terms of the ways we work must be towards the customer ...and we ask the customer to pay higher margin for our products...so he must be able to see a difference in the kind of services...the kind of products we give him ...compared to our nearest competitor." (Lines 32-40)

Marketing Director National Starch: "Yes of course with ICI it gives even more weight if they use ICI Paints so a lot of customers will say how can ... I believe National Starch quality will be there, it is understood it is there, they do not know National Starch first time they know but when they see ICI logo if ICI can maintain that type of quality and the brand name it lends a lot of weight that National Starch will be consistent in their quality." (Lines 90-95)

The above interviews highlight two key factors. First, the practices were mandates from the parent company and the government. Thus, the subsidiaries were faced with coercive pressures from both the internal and external environments. Second, the practices was as an important business strategy, which provides the means to achieve competitive edge.

Relational System

This section examines managers' behaviors and the approaches applied to implement the practices at the subsidiaries
National Starch

Concern for Costs

There was strong concerns on the high cost of expenses involved in implementing the practices:

Production Manager National Starch: "...safety is very expensive, it is very, very expensive. For example if I want to make adhesive ... and take into consideration the proper way ... the price would be double or triple. I mean ... we are making exactly the same thing but the cost is double or triple." (Lines 197-203)

Safety Training

The high concern for costs had affected safety training, which was rather lacking:

Plant Executive National Starch: "We require support from the management, more training on safety awareness and bigger budget". (Lines 7-8)

Production Manager, National Starch: "Every quarter we have one day where we stop the plant operation and gather everyone and squeeze them in the conference room where we have some kind of training, more like awareness training. We get various people from executives and managers to come in and talk about different aspects of safety, talk about health, and talk about the environment". (Lines 52-57)
Safety training was mainly through weekly briefings in the plants:

*SHE Officer National Starch:* "...every Monday morning I have briefings, each plant has safety briefings and in each safety briefing I will include current information on safety, health environment...The supervisor will talk about productivity and quality, and I will focus on safety, health and environment". (Lines 58-67)

The workplace is risky and dangerous affecting workers' health and safety:

*SHE Manager National Starch:* "In a chemical industry like National Starch Chemical we have 301 types of chemicals and we have to categorize those that are hazardous and those that are non hazardous because the exposures to the chemical today will affect the employees only in the next 5 – 6 years because their effects are long term...Chemicals have acute and long term effect, if acute and corrosive if in contact with the skin it burns on the spot but some of the harmful chemical that we are exposed today, if we don't handle it safely after 5 years – worse still the illness will only appear after 20 years or the 2nd generation of the family only then we are able to detect them, so that's what we are trying to emphasize on...we are not just frightening them (workers) but this is the reality, these are the effects if we don't care about safety." (Lines 28 – 46)

**Concern for Productivity**

There was a concern that the extra work involved in the practices affect productivity:
Production Manager, National Starch: "...ICI's culture on safety emphasizes a lot on documentation. They have a full set of documents about safety... I mean we have some set of procedures over there but when we look at ICI procedures we say - oh it is not applicable over here, there are some differences... we do not have much documentation and we have nobody to audit documents ...but what we emphasize more is on the experience of the person in the company... The set of procedures definitely will benefit us, it serves as a guide, the minimum requirement, but the problem is to maintain it, we need resources to do that. Over here actually we focus on lean we do not want to have too many people here so the resource is not available" (116-132)

The high concern for productivity had led to the delay in updating the OSH policy and procedures:

R&D Manager, National Starch: "Overall in the company in safety in terms of identification we have still not we have not really enforced especially in this company. Identification of the chemicals, bottles they were saying that you have to identify in terms of whether it is flammable, hazardous so all these things we have not really implemented but definitely in terms of the usage in the plant, adherence to wearing proper protective equipment have been applied to all the people including the lab. Again when you talk about safety hazards SHE is concerned for example over here anything related to solvent we don't use." (Lines 64-72)
Safety Performance

The performance appraisal system is seen as an important method to monitor the individual employees' safety performance. However, the process of measuring the individual's safety performance seemed to be rather vague:

*HR Manager National Starch:* "Yes, safety is one of the performance measurements, safety is one of the criteria for everyone, because it is a policy we are very concerned about safety and we put it as one of the criteria to measure. It also depends on the job like the workers as long as they follow all the procedures they will achieve that criteria". (Lines units 18-25)

Another method to drive safety performance is through competitions. Every month safety competitions were organized at the inter-departmental level to encourage employees' to improve their safety practices. Those who meet specific standards of performances were acknowledged and awarded:

*SHE Executive National Starch:* "...every month we have one recognition program, we put it if every month the department carry out 33% safety audit then they will be recognized for the award". (Lines 200-202)
Managers were expected to apply discipline to employees who overlook the safety rules, however in practice they avoid applying punishment, indicating weak enforcement:

*Production Manager National Starch:* "...I think the most important thing is that as a start when we want people to comply with our safety regulations and rules that are set in the plant - no matter how ... certain groups of people will not follow. That's why sometimes disciplinary action will come in to show to the rest of the people that we are serious about it. But the last action we have taken I mean disciplinary action we have taken against the basic SHE requirement was probably about 3 years ago, now the compliance is very good they got the message." (Lines 67-74)

*SHE Officer National Starch:* "If they don't follow procedures, we will give them warning letters...It depends on the incidence, if it is serious we can terminate them straight away ...So far we have not issued warning letters ... It will affect their bonus, increment and promotions prospects". (Lines 243-251)

The above indicate that the managers' behaviors had affected implementation in National Starch. First, the high concern for costs had resulted in low safety awareness and lack of proper safety equipment, which further contribute to the high incidence at the subsidiary. Second, the high concern for productivity had resulted in low priority towards safety. Managers tend to focus more on productivity than on the safety practices. Third, the lack
of disciplinary actions had led to weak enforcement of the safety rules. All these factors had contributed to low job safety at the subsidiary.

Uniqema

Concern for Costs

The high concern for costs had somewhat affected implementation at the subsidiary:

*SHE Manager Uniqema*: "...right now there is this issue of practice ... do we have the facility to ensure that safety is being practiced at our place? In my opinion I don't think so ..." (Lines 236-237)

Safety Performance

For Uniqema, the performance appraisal system is an important method to control and monitor safety performance. Safety is one of the key objectives of the individual employees, which is measured through the performance appraisal system:

*SHE Manager Uniqema*: "I think one of the better elements that we have in Uniqema is that for each one of the employees who are employed at our site especially at the executive level, each one has a safety objective. The management has made it a point to put safety as one of the key objectives for each individual especially the executive level and above...To me this is the apparatus for all of us to drive SHE to the fullest. So I think
without having SHE as one of the objectives, I don't think SHE would deserve the recognition as has been given up to now". (Lines 159-171)

Another important way to monitor safety performance is through regular audit checks:

SHE Manager Uniqema: "I think basically SHE is driven by the audits that they conduct as well as the guideline that they have given to us". (Lines 156-157)

Enforcement

Managers rarely apply disciplinary procedures to enforce the safety rules

Plant Executive Uniqema: "Here we try to inculcate the culture of safety, people should not be offended if we issue a summon for failing to comply with safety. We try to tell our people that these are our commitment, so we explain and let them understand. So far in the past 4 years we don't feel pressured because we try to promote the culture, to make them like safety so subconsciously they can accept it, we don't really enforce it and offend people so much." (Lines 61-67)

Safety Training

Uniqema, had embarked on a long term program to develop employees' safety behaviors, indicating high priority for safety training:
SHE Manager, Uniqema: "Yes, this is one of my personal goals...to change our guys to act towards the highest safety conscious level, this is the challenge that we are facing now...for our site we have to conduct this training...we call it behavioral. Basically this program deals with the inner person. What we want out of this is that before they actually do something we want them to stop and think, what would be the consequences if you choose to decide on a particular action? It is to inculcate safety consciousness in whatever they are doing, and when they are making any decisions at work..." (Lines 257-271)

The above indicates that the managers in Uniqema show high priority for safety performance, high priority for safety training but low enforcement to the safety rules. However, the high concern for safety expenses had affected the process of implementation.

Esterol

Enforcement

In Esterol, managers did not normally punish employees who overlook the safety rules, indicating weak enforcement:

Human Resource Manager Esterol: "...I don't believe in the disciplinary kind of approach to make the difference. It can be light disciplinary action rather than you
impose that type of disciplinary action, there are other ways of doing it like counselling or so. So far nobody is that bad to deserve dismissal ... Of course they will be issued with warning letter but up to warning letter only, because after that it is end of the story no serious actions". (Lines 98-102)

**SHE Manager Estero:** "...if you are aggressive when you want people to do something, it will not come from inside but more or less being forced to, that's what I see, (Lines 160-162)

**Safety Training**

There was high emphasis for safety training. Estero had embarked on a long-term program to develop employees' safety behaviors.

**SHE Manager Estero:** "What we are trying to tackle is ...the unsafe conditions and unsafe acts. Unsafe condition is the thing that we can try to improve by having a work place inspection, but unsafe acts this is the thing that is related to behavior somehow, it is difficult to change people's attitude but the thing is that somehow this attitude can be influenced by the behavior of the person, so we try to control the condition of the behavior ... so this is what we are actually going to implement in the system itself". (Lines 109-132)
Safety Performance

In Esterol, the performance appraisal system is an important method to monitor the employee’s safety performance:

HR Manager (Esterol): “Basically if you are talking about the company’s safety it is also part of the evaluation for performance where safety is also taken into consideration, you are talking about either in the line or you are talking about the floor. In the performance appraisal itself there are some categories on the safety part... at the moment to be frank with you we are reviewing our performance appraisals we try to follow the ICI way of doing it ...we develop our own performance appraisal but we do see some lacking on a few areas ....” (Lines 25-33)

Yearly competitions were organized to encourage safety performance. Participating employees with outstanding safety performances were recognised and awarded:

General Manager Esterol: every year we have 3 SHE awards for the employees so we actually look at who are the one that we find work very safely we wont tell them but they know there will be an award at the end of the year, so everybody will know that there will be a reward at the end of the year if they work very safely...” (Lines 133-140)

The above indicate that managers in Esterol show high priority in safety performance and high priority on safety training. However, there is low enforcement of the safety rules.
ICI Paints (Old Subsidiary)

**Enforcement**

In ICI Paints applying threats and punishment is a common method used to enforce the practices, indicating coercive pressures:

*Human Resource Manager ICI Paints:* "...In the last two years we have actually put it in to say that if you violate any of the SHE rules and regulations that the has it is treated as a misconduct that can lead to dismissal. So it is being given that kind of emphasis and I will say that is the kind of role that we have...” (Lines 16-23)

*Finance Manager ICI Paints:* "One thing you can see is that the company is pretty strict about SHE policy relative to another company". (Lines 89)

*Operations Manager ICI Paints:* "... implementation of SHE is disciplinary in nature which means that if there is non conformance you actually get punitive disciplinary action...” (Lines 227-229)

*IT Manager ICI Paints:* "...in the plants there are very vivid reminders of the safety rules from place to place ... bosses watching you ... the sign boards cautioning and reminding you ...” (Lines 5-10)
Safety Performance

Audit checks are an important method used to monitor the subsidiary's safety performances:

Managing Director ICI Paints: "Regular audits are carried out both by internal and external auditors involving stringent checks on compliance to safety rules and procedures". (Lines 12-14)

Performance appraisal system is another important method that the subsidiary used to monitor safety performances. Individual employees were given a set of annual safety targets to achieve, which were measured through a formal performance appraisal system:

Human Resource Manager ICI Paints: "...when everybody sits down to do their objectives at the beginning of the year one of the objectives will always be on SHE, whether as a personal objective of not getting into any trouble or in terms of supporting some Key Productivity Index (KPI) like making sure that there is no reportable injuries. Everyone will have an objective that is SHE related." (Lines 37-42)

Plant Manager ICI Paints: "For everyone in the plant it is already stated in their job specifications that safety is one of the key areas of their job responsibilities. Everyone receive a job specification ... safety is everyone's responsibility. They are also given
annual objectives which have some SHE targets given to all of them, whether for individuals or for the team". (Lines 30-35)

In ICI Paints employees with outstanding safety performance were given cash rewards to sustain performance:

Finance Manager, ICI Paints: "...we do acknowledge individuals in the sense that if they meet beyond the safety objectives set for them they get rewarded by way of bonus. Let’s say I ask them to achieve X no of safety activities and they double it they will be recognized in that manner and that goes into their performance appraisal and the bonus element comes into play". (Lines 158 -165)

Safety Training

Safety training was made compulsory to all employees including managers and contractors, indicating high priority the development of safety skills and awareness:

Finance Manager, ICI Paints: "Managers at my level and lower are being dictated to attend SHE training". (Lines 200)

Production Manager, ICI Paints: "We are consciously having seminars and workshops, bringing experts, visiting or networking with the other ICI companies ..." (Lines 85-87)
IIR Manager, ICI Paints: “The culture here if you ask me is that the first emphasis when a new employee joins I have to do a company induction where we emphasize on safety itself. What is the rule that we expect from you in terms of safety, and normally after that the SHE manager will come into the picture where he will conduct some training basically from the safety health and environment aspect”. (Lines 46-51)

Business Manager Decorative, ICI Paints: “...every year we have the Win-Win partnership meeting...in every session there are about 100 dealers, so we brief them about SHE...We make it a point that during every seminar once a year we give them a refresher on this and also how to do their work safely for example on the right posture to carry things. (Lines 47-51)

Supplier, ICI Paints: “Yes we do attend the sessions, we also bring our storekeepers there so they can make sure all our transport lorries comply with what ICI wants”. (Lines 74-76)

Forklift Operator ICI Paints: “I can say every week when we have safety meeting, we also have safety training...” (Lines 111-112)

At the old subsidiary, managers monitor closely the individual employees’ safety performance. Managers apply discipline and punishment to discourage workers from ignoring the safety practices. The managers’ behaviours reflect high dominance and control, an important Confucian principle of good leadership (J. Wang et al, 2005).
They represent the acceptance of social roles that set forth the principles that define appropriate individual behaviors in relation to others in a social hierarchy (Berling, 1982). There is high emphasis on tight rules, close monitoring of performance and high emphasis on end results. Importance is placed on discipline and the subsidiary is hierarchically authoritative.

The interviews show there is a difference in the way managers enforced the practices at the subsidiaries.

While in all subsidiaries, managers have concern for costs, these (Chinese) managers' concerns for thriftiness is most significant in National Starch. The managers' high concern for costs had affected job safety at National Starch. In this context, 'thriftiness' is characterized by cost cutting measures to reduce safety expenses e.g. safety equipment and training. In National Starch the lack of proper safety equipment and lack of safety training had contributed to the high incidence at the subsidiary.

There is also a common characteristic shared by the old and new subsidiaries, which is high concern productivity. It is common for managers to reward employees for achieving high productivity:

*SHE Manager, Esterol:* "...for the workers who work on the shift day in and day out they want something like when they come to work they can show their 'macho' behavior, in the sense that if the other shift can make 7 pallets per shift their group can make 8 to 9
pallets per shift so that they can really show their skills in handling the machines, they really can show off the results at the end of a shift but when you talk about safety and say that they will be audited after each job is completed they feel that it is nitty gritty, the job is nitty gritty and they still could not see what are the benefits that they will receive. So the main motivating factor in Malaysian culture is about productivity - not only practiced in Esterol, ICI Paints, Uniqema or other multinational companies but even in the Chinaman company for example 'ok we let you do 200 ton but if you do more than 200 ton I will give you extra RM50 on the spot'..." (Lines 234-250)

The concept of productivity in Malaysian businesses can be linked to the economic position of the country. As a developing country, Malaysia depends on high productivity particularly from the manufacturing sector. The government puts strong pressures on manufacturing companies to increase productivity to ensure the industry's growth and improve the country's economy. Hence, this had prompted Malaysian companies to focus more on productivity than on the safety practices.

Managers usually reward workers for high productivity to sustain performance. This can be linked to the concept of quanxi. A central principle behind guanxi is mutual-gains for both sides which stresses on the establishment of a connection between two independent individuals to enable a bilateral flow of personal or social transactions (Watt, 1999). In this sense, both parties must derive benefits from the transaction to ensure continuation of the relationship, which must be nourished and maintained over time. To enable the bilateral flow of social transactions, the concept of renqing is applied to provide the
leverage during interpersonal exchanges of favours. In essence, *renqing* provides the moral foundation for the ideals of reciprocity and equity that are implicit in all *guanxi* relationships. In the organizational context, the concept of *renqing* is characterized by productivity and rewards. The concept of *renqing* is applied in all subsidiaries to reward employees for high productivity to sustain performance.

**Perception and Behaviors (Workers)**

**Routines**

**National Starch**

In National Starch, workers were particularly concerned with the frequent incidents at the work place:

**Low Job Safety**

2nd Group Worker 2 National Starch: "We are afraid of the danger ...Here there are more chemicals, before in 1998 I don't think too much about safety because we work in a different place, but now we work below the platform if we forget to wear helmet we will hit our head". (Lines 51-54)
Worker 3 National Starch: “If we don’t wear personal protection equipment (PPE) when the chemicals spills on our hand it will be burnt, if it gets on the eye sits worse.” (Lines 59-60)

Workers were also concerned of the long-term effects of chemicals to their health:

Worker 1 National Starch: “The long term effect to our health that’s what we want to avoid.” (Line-21)

Worker 2 National Starch: “Now there are 2 workers from National Starch that we can see suffering ...” (Lines 89)

Worker 1 National Starch: “Some of them suffer from the effects of chemicals but they wont tell, for example Krishnan, last time when he joined us he has a big body but after 14 or 15 years he has become thin”. (Lines 87-88)

Uniqema

In Uniqema, workers were unhappy that the managers were cutting costs on safety expenses:
Low Priority for Safety

Uniqema Worker Group 3: “Let me ask you first – a lot of companies practice safety but how do they prioritize safety .... By right if they want us to follow procedures there is no reason why they should provide us with low quality equipment. Where do they place safety – in front?” (Lines 3-8)

Worker 3 Uniqema: “The issue of course has to do with the cost but that is not reasonable”. (Lines 92-94)

Workers perceived managers did not give much priority to workers' safety. A particular concern for the workers is the lack of safety equipment:

Uniqema Forklift Driver 1: For me if I ask something it is quite difficult - for example if it rains ... we will be wet so we gave suggestions they gave all sorts of excuses the issue is the cost ...” (Lines 124-128)

Worker 1 Uniqema: “We have highlighted many times during the shift meetings on issues regarding the PPE but the management has not responded to us yet” (Lines 55-59)

Worker 1 Uniqema: “Some of the safety equipment given to us is inferior quality but we just accept them”. (Lines 3-5)
Another concern for workers was the poor optical quality of the safety goggles they were provided with:

Forklift Driver 2 Uniqema: “Before I don’t have to wear spectacles but now I have to wear them. For me wearing the safety spectacles causes my eyesight to become worse”. (Lines 113-123)

Forklift Driver 3 Uniqema: Since I have to wear safety glasses my eyesight is now not so clear, and I cannot even read properly. Before when I read it was ok-- it is because of the goggles. (Lines 130-132)

Unsafe Work Area

Workers were also concerned with the poor design of the work area, which had led workers to use short cuts thus affecting others’ safety:

Uniqema Forklift Drivers 3: “The area is small so we have no choice ... everyday we have to enter the stacking area ... they say that they will allocate a special place nearby but when the time comes they still stack goods there.” (Lines 61-71)

Forklift Drivers (11 Uniqema: “In the zone where they are not supposed to enter but they just entered”. (Lines 10-11)
Forklift Driver (2) Uniqema: "This is not being responsible, it is not correct ...they are not supposed to enter certain zones, only some zone they can enter, but whether it is emergency or not they just enter and nobody tells them off." (Lines 13-19)

Low compliance

At the same time, other workers also tend to ignore the safety regulations:

Union Representative Uniqema: "Its partly due to attitude, partly due to environment, partly due to the lack of information, partly due to lack of understanding...they don't really understand. Like you know there are so many solvent there which are highly inflammable and yet you can find people not wearing PPE. Where is this thing safety? Very risky, but when the executive himself is doing it then what about the rest of the workers? Yes they are doing it. ...when the cat is away the mice start to play. Sorry to be blunt but since you want the facts this is the fact...this is the fact...sometimes smoking you have to walk 200 – 300 meters away to the smoking hut so they take the easy way out". (Lines 27-55)

Workers perceived weak enforcement at the subsidiary had encouraged others to ignore the safety practices:

Worker 3 (Uniqema): "When I break the rules even though my colleagues notice it but they don't say anything. There are many people who break the rules and yet nobody does anything about it". (Lines 4-5)
Concern for Productivity

Workers perceived managers were more concerned with productivity rather than the safety practices:

Union Representative, Uniqema: "... Sometimes I see some of the managers ... you see they cut corners a bit by trying to save on the production time ... they just cut corners...

(Lines 77-80)

Worker 3, Uniqema: "Those procedures are not necessary, but they will still implement it". (Lines 95-99)

The above highlights three key factors: First, workers were unhappy with the management’s cost cutting on safety. Especially the badly design work areas and poor quality safety equipment were affecting their safety. Second, workers perceived managers were more concerned about productivity than the safety practices.
Esterol

Concern for Productivity

Workers in Esterol show more priority for productivity than on the safety practices. They were unhappy with the extra workload involved in safety since it affects their productivity:

Worker (3) Esterol: “Employees are feeling the pressure because there are too many rules, procedures and targets”. (Lines 4-5)

Operator 1 Esterol: “...I did not raise the work permit and follow the necessary procedures... I just do it (job)...” (Lines 6 – 7)

Low Compliance

Sometimes workers ignore the safety rules so that they could focus on productivity:

Operator 2 Esterol: “... we tend to overlook some of the procedures when we are under pressure”. (Lines 3-4)

Laboratory Analyst Esterol: “From my observation some Laboratory Analysts do not practice safety as much as the others”. (Lines 5-6)
The above indicates workers in Esterpl put more priority on productivity than on the safety practices.

Artefacts

This section examines the level of implementation at the subsidiaries. The section looks at the artefacts, which is the number of certifications and awards achieved by the subsidiaries, symbolizing success of implementation.

The old subsidiary had received several ISO certifications and CEO awards at the national and international level, suggesting high implementation at the old subsidiary:

Plant Manager ICI Paints: "...we have been given the Chief Executive Awards in 1993 which is the inaugural award, together with the Group Chief Executive Award in the same year for our good record during the construction and commissioning of the plant. Later on we have been given other awards by Malaysian Society of Occupational Safety and Health, it was a gold award. Recently we were given awards by CICM Council Industry Council of Malaysia, we were given the symbol award for the process control code they call it, for process management which is at the national level. For the state level we were given an award for the safest plant in Negeri Sembilan for the management of chemicals and occupational safety. We received the Chief Executive Asia award in 1999 and in 2001. I can give you the list ..."  (Lines 85-98)
Human Resource Manage ICI Paints: "... the company is certified with ISO 14001 which is an environmental policy international standard, we are also certified with OHSAS 18001 which is the health standard..." (Lines 59-62)

Plant Manager ICI Paints: "Actually in SHE we cannot be satisfied with what we have because we have to continuously improve ourselves although we are already at the top. Although people make us as a model we are still not satisfied with what we have now and we try to improve further". (Lines 78-83)

At the new subsidiaries implementation seemed to be moving at a slow rate despite more than three years of being exposed to the practices. Most of the new subsidiaries did not qualify to participate in the prestigious CEO awards because they were behind in the completion of several projects involving the practices:

R&D Manager, National Starch: "Overall in the company in safety in terms of identification we have still not we have not really enforced especially in this company. Identification of the chemicals, bottles they were saying that you have to identify in terms of whether it is flammable, hazardous so all these things we have not really implemented but definitely in terms of the usage in the plant, adherence to wearing proper protective equipment have been applied to all the people including the lab. Again when you talk about safety hazards SHE is concerned for example over here anything related to solvent we don't use." (Lines 64-72)
Human Resource Director, Uniqema: “ICI can give us a broad guideline whenever they start something new but we make sure that people locally understands why the new measurements are important and whether it is applicable to us. In most cases before we implement SHE, a lot of thinking, discussion and feedback are taken from everybody throughout the division”. (Lines 112-117)

General Manager, Esterol: “I would say that in Esterol we are still working on one more, the engineering end which we have not completed. That means we still have to develop our local engineering procedures so we hope to complete that in the year 2004, just an outstanding item that we are looking at now”. (Lines 86-90)

Workers were slow to implement the practices and tend to stick to old habits:

Production Manager, Esterol: “Even now after 2 years we expect everybody to wear safety goggles but sometimes its just accessories – they do not put in the proper way. They just wear to show everybody that they are also wearing the safety goggles but actually not for the safety purpose.” (Lines 32-41)

The above indicates implementation is higher at the old subsidiary than in the new subsidiaries.
Key differences between managers and workers' perceptions/behaviors

The interviews highlight the key differences in perceptions between managers and workers:

Commitment

Managers believed that they were committed to the practices, however workers perceived that managers show low priority to the practices. This is particularly evident in National Starch and Uniqema:

National Starch

Production Mgr. National Starch: "Whatever we do over here in National Starch even before ICI we always say safety is no. 1 and after that we incorporate health and environment because we talk about safety probably it is more related to work but ignoring the human, when we talk about health we taking care of humans, we talk about environment we are taking care of the community as a whole that's why from safety we change to SHE safety health and environment. The reason it is so important is that we just cannot afford to get people hurt, so that's what is said by our ex Chief Operating Officer, that's what he said whatever we do it is not worth getting people hurt so that's very important message that's what you can see in National Starch". (Lines 7–16)
Worker 2 National Starch: "There are many incidents where we are splashed with oil all sorts of oil ... Even then we can still get it (hurt) we understand that it is very dangerous actually whatever danger it is just near us."  (Lines 40 - 44)

Uniqema

Human Resource Director, Uniqema: "... I would say that SHE is a priority in everything we do. If you look at the basic principle the first principle is the SHE principle....we want you to come to work and go home safely ... go back to your family..."  (Lines 118-121)

Union Representative, Uniqema: "Safety practice has always been in place, the safety procedures are always there but the problem is the emphasis on it and how much the company is willing is to spend on safety. The time and effort they put in is not very visible. So even though you can come and sit here and talk ...safety...safety...but how much are you willing to put in?" (Lines 62-78)

Compliance

Another key difference is compliance to the safety regulations. Managers perceived there was high compliance to the safety practices. However workers complied to the safety rules mostly in front of the managers, but they tend to ignore the practices at the back. This is particularly evident in Esterol:
General Manager, Esterol: "...when I walk down the plant I see that they are following it, they are following the safety procedures without us having to tell them, which means that they actually understand that they are doing it for their own safety". (Lines 157-160)

Production Manager, Esterol: "...in the middle of the night when I am not around say around 1.00 a.m. they don't wear the safety apparels (PPE) but not during the day time when you are in front of them ...normally when we ask them everything is ok. All easy everything perfect but when they do it everything is different". (Lines 39-46)

SHE Manager, Esterol: "...in front of you they say 'yes' but at the back they said 'just relax if you want to follow all the procedures it's going to be difficult to work' ...so you get that back". (Line 231-233)

Avoidance of Punishment

A common factor that affects compliance in the old and new subsidiaries is the avoidance of punishment. Workers complied with the safety practices mainly to avoid disciplinary actions:

Worker (2) 2nd group National Starch: "...anyone who does not follow the procedures will receive disciplinary action". (Lines 5-6)
Worker (3) National Starch: "I don’t feel comfortable if people see me without the helmet... because I am afraid of the warning letter". (Lines 41-46)

Worker (2) 2nd group National Starch: “For me the helmet and shoes are all basic they are important, but I also don’t want to get any warnings from the bosses ...” (Lines 22-25)

Worker (1) Uniqema: “Normally management will give us warning letter if we don’t follow the procedures. For example if we don’t follow the procedure to roll the water hose properly or put it back to the original place, as far as the management is concerned they will give us warning letter or something else...” (Lines 157-168)

Forklift Operator ICI Paints: “... When we see the safety manager we give him a lot of respect because we are afraid that he will catch us and issue summons...” (Lines 40-43)

Team Leader ICI Paints: “...we must wear specs, ear plugs etc. otherwise our supervisors will give us warning letters ...” (Lines 5-6)

Workers also conformed to the safety rules to avoid the risk of being terminated:

Worker (2) Uniqema: It is the regulation to wear PPE so we are forced to wear. If you don’t wear you will get it – in respect of your job, your salary, food everything so it is compulsory its better to use otherwise we will be sacked”. (Lines 104-112)
Senior managers believed they were highly committed to the practices but workers did not think so, indicating difference in perceptions. This is particularly evident in National Starch and Uniqema. In National Starch the evidences were reflected in the dangerous work environment and the lack of safety equipment. In Uniqema, this was reflected in the poor quality equipment and badly designed work areas.

Evidence relating to causes of perceptions and behavior and relating to quantitative findings

The perceptions and behaviors of managers and employees were caused by two key factors: economic and ethnic cultural values. The findings show the high concern for costs and productivity by senior managers were caused by the host country’s economic position, the financial state of the subsidiaries and the cultural ethnic values for ‘thriftiness’. These factors had impeded the implementation of practices at the Malaysian subsidiaries.

**Economic Factor**

As a young and developing nation, Malaysia depends highly on productivity to stimulate its economic growth. Performance of the manufacturing sector is an important source of economic growth, hence the government puts pressure on the manufacturing sector to increase on productivity to achieve growth. Managers are also concerned for profits, thus focusing on productivity helps to achieve profits. The weak financial position of the new
subsidiaries had resulted in the managers to be rather careful on safety expenses to save on operational expenses. The small safety budget had resulted in the lack of proper safety equipment and low safety awareness hindering the occupational and safety practices.

For the workers, productivity is seen as more important than the safety practices because of the rewards. Most workers are from the low economic background and the sole breadwinners in the family, thus they are motivated to earn the extra income to increase their earnings, which led them to place high importance on productivity. Hence, the economic factor had strong impacts on both managers and workers behaviors, affecting the safety practices.

_Ethnic Cultural Values_

_High Concern for Profits_

The high concern for profits and wealth had resulted in managers giving more priority to productivity than on the safety practices. This behaviour can be linked to _Quanxi_. An important aspect of _quanxi_ is ‘wealth’, thus profits consideration go hand in hand with business activities. Thus, in Chinese businesses it is important to establish a strategy in the marketplace, metaphorically described as a ‘battlefield’ (Chen, 1995). Using the analogy of the ‘battlefield’, the struggle for survival is intense where the end is victory, or profitability; thus there is tremendous pressure for managers to find the most effective
means to attain the end (profits). In the organizational context, this can be translated to a strong emphasis on the achievement of business success and profitability.

Rewards

A central principle behind guanxi is mutual-gains for both sides, which stressed on the establishment of a connection between two independent individuals to enable a bilateral flow of personal or social transactions (Watt, 1999). In this sense, both parties must derive benefits from the transaction to ensure continuation of the relationship, which must be nourished and maintained over time. To enable the bilateral flow of social transactions, the concept of renqing is applied to provide the leverage during interpersonal exchanges of favors. In essence, renqing provides the moral foundation for the ideals of reciprocity and equity that are implicit in all guanxi relationships. In the organizational context, the concept of renqing is characterized by rewards. Thus, it is common practice for managers to give cash incentives to reward workers who achieve high productivity.

‘Thriftiness’

The managers’ high concern for costs can be linked to the Confucian value for ‘thriftiness’. Confucianism placed high importance on thriftiness, which is seen as a virtue because it encouraged people to save for ‘rainy days’ and provide security for the future generations (Pun, Chin & Lau, 2000). Thus, it is typical for Chinese managed
companies to be thrifty and apply tight control on budgets to focus on low cost inputs in manufacturing (Carney, 1998). These characteristics are highly evident in the newly acquired subsidiaries affecting implementation particularly in National Starch.

The high concern for 'thriftiness' had resulted in unsafe work environment. This is reflected in the badly designed work area that had become potential safety hazards to workers. For example, forklift drivers had to drive a long way to enter their work areas. To avoid the long drive, the forklift drivers usually take short cuts by entering the restricted zones, ignoring the safety rules and causing a danger to others. The passageways are narrow and stacked high with boxes of finished products and raw materials, making it difficult for the forklifts to pass through. The boxes had blocked the views of the forklift drivers that led to several 'near misses' thus posing a danger to others as well as the drivers' own safety. Re-designing the work areas may not be possible because of the high concerns for costs, indicating strong value for thriftiness. Hence the unsafe work areas had affected the implementation of safety at the subsidiaries.

The high concern for thriftiness had also led to lack of priority for safety training, which is reflected in the workers' low safety awareness at the new subsidiaries. This is reflected by the high incident rates at the workplace e.g. National Starch, indicating lack of safety awareness. The lack of safety training had also resulted in low conformance of the safety rules e.g. Uniqema and Esterol, which is reflected by the high rates of 'near misses' at the workplace. Thriftiness had also resulted in National Starch not complying with some
aspects of the ICI safety practices. This is because senior managers were not prepared to pay for the high cost of implementation. This implies National Starch may not be fully conforming to the regulatory requirements of the ICI safety practices.

Most of the new subsidiaries have not installed the Customer CARE management system to support the practices due to its high cost, thus documentation of the practices was carried out manually. The probability of human errors is high. For example, in Uniqema, the audit checks identified poor documentation of the ‘work permits’ indicating that most employees did not comply to the operating procedures. Besides, the lack of manpower indicates low monitoring of documentation and low compliance to the standard operating procedures. The absence of a database to manage the practices reflects not only the management’s high concerns for costs, but also show their low priority for the practices.

**High Consideration for Others**

Another significant characteristic of managers at the new subsidiaries is high consideration and sensitivity for others. Managers do not normally take disciplinary actions against workers who ignore the safety rules, indicating weak enforcement. The managers’ behaviors are linked to ‘humanity/benevolence’, an important Confucian principle of good leadership (J. Wang et al, 2005). According to Confucian teachings, humanity/benevolence nurtures the inner character of the person and furthers his or her ethical maturation. Importance is placed on the cultivation of conscience and character
Humanity/benevolence is characterized through maintaining harmonious relationship, high consideration and sensitivity for ‘face’ (Watt, 1999). The managers at the new subsidiaries reflect these characteristics.

The high consideration for employees at the new subsidiaries had led to weak enforcement of the practices. Most managers did not apply disciplinary procedures to deal with workers who did not conform to the practices, indicating benevolent leadership style. Although managers were aware of the rampant cases of non-conformance at the shop floor amongst workers, however, they did not normally institute disciplinary actions against them. For example, workers who were caught breaking the safety rules were either ignored or given ‘friendly’ reminders including counselling, suggesting weak enforcements at the subsidiaries. The high benevolence and empathy although seen as positive attributes of good leadership had affected implementation at the subsidiaries.

‘Rubber Time’

Stretching of deadlines or ‘rubber time’ is common amongst Malaysian employees. For example, the new subsidiaries had been slow to update the amendments to the DOSH regulations, implying they may not be conforming to the latest rulings relating to occupational safety and health. Besides, most of the standard operating procedures (SOP) were outdated suggesting low conformance to the local laws as well as the ICI safety procedures.
Lack of Openness

Workers comply with the safety practices mainly to avoid punishment. The avoidance of punishment can also be linked to the concept of ‘shame’ (malu), which is an important ‘Budi’ value. Shame is characterized by high concerns of others’ perception of them, affecting one’s dignity, which is also a common characteristic of a collectivist society (M.L. Storz, 1999). Thus, workers conform to the practices mainly to avoid ‘shame’ and punishment. It is also not their culture to show disobedience to their superiors, since ‘respect’ for the superior is an important Budi value.

Another factor that affects implementation is the workers’ lack of ‘openness’. For example, when confronted with issues such as ill-fitting safety goggles, workers do not normally bring the issue directly to their managers instead they prefer to complain behind their managers, indicating lack of ‘openness’. For the workers, ‘unopenness’ symbolizes respect for superiors. This characteristic also reflects ‘sensitivity’ of feelings and high consideration for others, which are important Malay values. Unopenness can also be linked to the avoidance of conflicts. For example, workers do not normally reprimand their colleagues if they break safety rules reflecting the avoidance of conflicts. This also suggests high corruption of practices at the shop floor.
Key themes

In National Starch, the high concern for costs had resulted in lack of safety training and lack of resources to facilitate the implementation of practices at the subsidiary. These translate into low safety awareness, lack of safety equipment and lack of manpower to monitor the practices, which had contributed to the high incidence at the work place. Besides, the managers' high emphasis for productivity and the workers' high emphasis for rewards had resulted in less attention given on the safety practices. In addition, the lack of resources to facilitate and monitor the safety practices had led to delays in updating the ICI SOPs and procedures relating to government legislations, delaying the process of implementation at the subsidiary. Hence, the qualitative findings confirm the quantitative findings that National Starch had lowest job safety, lowest co-workers' safety. Overall implementation can be considered to be lowest than other subsidiaries.

In Esterol, the interviews indicate managers and workers placed high importance on productivity than the safety practices. Managers were unhappy with the extra work involved in the safety practices, as it had affected productivity. Workers were also unhappy with the tedious procedures relating to the safety practices and tend to take short cuts and ignore basic safety rules so that they could focus on productivity, indicating low compliance to the safety rules. However, the interviews did not indicate the managers to show high concern for costs. There was also no complaints from the workers on the lack of safety equipment or issues affecting workers' health and safety at the work place, indicating the managers were willing to invest workers' health and safety and reduce risks at the work place. Hence, the qualitative findings show Esterol to have higher job
safety than Uniqema and National Starch, but lower than ICI Paints. The interviews also show that 'co-workers' safety ‘now’ in Esterol is lower than ICI Paints but higher than Uniqema and National Starch. The qualitative findings confirmed the quantitative results that Esterol was fast catching up on implementation compared to the other new subsidiaries.

ICI Paints show high concern for job safety and co-workers' safety. The interviews show that tight enforcement and close monitoring of safety performance had led to highest job safety and highest co-workers' safety. The interviews also show that cost is not an issue in the implementation of practices, which indicates that the old subsidiary is not affected by the economic factor. Overall the findings show the old subsidiary had highest implementation compared to other subsidiaries. This contradicts the quantitative findings, which indicate Esterol had overtaken ICI Paints in implementation.

**Summary**

Results of the qualitative interviews indicate implementation is lower at the new subsidiaries than the old subsidiary. In particular, National Starch had lowest level of implementation. The qualitative interviews indicate all the subsidiaries have low commitment to the safety values, in particular National Starch had lowest commitment. The qualitative interviews indicate implementation is higher now than three years ago except National Starch which had not made much improvement. Discussions on implications of findings to institutional theories are discussed in Chapter 5.
CHAPTER 5 – DISCUSSION AND IMPLICATIONS TO THEORY

Introduction

This chapter (5) discusses the key findings of the quantitative and qualitative analyses, and the implications of these findings to the contribution of theory. In the previous chapter, the quantitative findings indicate moderately high implementation of the safety practices, high internalization of the safety values and moderately low safety climate at the Malaysian subsidiaries. The qualitative findings indicate mostly 'ceremonial' implementation, low internalization and low safety climate. The findings also show implementation was not uniform across the subsidiaries in particular National Starch was lagging behind the others. National Starch was identified as having low implementation, low internalization and low safety climate. Overall, the findings suggest a significant gap between formal requirements of safety procedures, senior managers' rhetoric and actual practices at the shop floor.

Key Findings

Analysis of the interview data suggests the stage of economic development of the host country and the normative and cultural-cognitive system of host country had influenced practice behaviours at the subsidiaries.
Stage of Economic Development of Host Country

A significant factor that impedes the adoption of practices at the subsidiaries is the economic development of the host country and the consequent orientation to cost reduction and productivity improvement of the subsidiaries. Unlike the U.K. which is a highly developed country, Malaysia is a developing country striving to improve its economy (Table 5.1).

Table 5.1: Malaysia - Economic Indicators 2008

<table>
<thead>
<tr>
<th>Key Indicators</th>
<th>% p.a.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Domestic Products (GDP)</td>
<td>5.5%</td>
</tr>
<tr>
<td>Gross National Product (GNP)</td>
<td>5.9%</td>
</tr>
<tr>
<td>Consumers' Price Index</td>
<td>2.5%</td>
</tr>
<tr>
<td>Balance of payment (BOP)</td>
<td>19.2%</td>
</tr>
<tr>
<td>Unemployment</td>
<td>3.2%</td>
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</tbody>
</table>

*Sources: Economic Planning Unit, Ministry of Finance, Department of Statistics, Bank Negara Malaysia and the Bursa Malaysia*

Manufacturing is a significant contributor to the Malaysian economy. In 2008 the manufacturing sector contributes 32.1% of GDP. The workforce in manufacturing sector makes up 29.2% of the country's total workforce of 11,608 million (economic planning unit and department of statistics report 2008). The government in their effort to improve export earnings had pressured the manufacturing industry to increase productivity. The subsidiaries, like other local companies from the manufacturing sector were under
pressure to reduce costs and increase productivity to achieve higher profits (from both parent company and local government agencies). Due to their strong focus on short term cost-minimisation reduction and productivity improvement, the new subsidiaries lack the financial support for the practices, thus managers only implement some of the practices and ignore the rest.

Workers who work at close to subsistence levels of pay wages focused more on productivity than on the safety practices since it provides them with the extra income their social economic position. According to a survey, hardcore poverty (2005) for Bumiputras was 1.9% compared to Chinese at 0.1%. The monthly household income for Bumiputras was RM 2,711 compared to Chinese RM 4,437 (Economic Planning Unit and Department of Statistics Malaysia – Household Income Surveys, 1999 and 2004). Difference in social economic position is reflected in the mostly Chinese managers and mostly Malay workers at the ICI subsidiaries.

**Normative and Cultural Cognitive System**

Another significant factor that constrains implementation is poor fit of the local cultural cognitive system with the ICI OSH practices. This is reflected by the different interpretations of the practices by the multi-ethnic employees at the subsidiaries. The (Chinese ethnic) managers perceived the safety practices as extra operational costs, thus to minimise costs they cut safety expenses. The managers' high concern for costs ('thriftiness') had resulted in dissatisfactions amongst the (Malay ethnic) workers, who
perceived the managers gave low priority for employees' safety (as evidenced by low ratings of safety climate and interview data). The employees' lack of communication and feedback ('openness') had prevented them from expressing their dissatisfactions to their managers, thus out of frustration they sometimes ignore the safety rules. This is compounded by the cultural divide between the ethnic Chinese managers and the Malay workers, constraining the process of implementation at the subsidiaries.

Typically, managers used threats and punishment to force workers to comply with the practices. Workers complied with the practices mainly to avoid punishment and most important, the prospect of losing their jobs. However, managers often turned a 'blind eye' when workers overlooked the practices and did not normally apply disciplinary actions for non compliance with the practices. In particular, there seemed to be a tacit understanding that workers only comply explicitly with safety practices, especially when directly observed but non-compliance happens out of the direct view of managers and supervisors. Similarly, workers showed high consideration and sensitivity to the feelings of colleagues, thus they normally ignore their colleagues when they overlooked the safety rules to avoid the possibility of conflicts. Further, the issue of 'rubber time' had affected implementation. Both managers and workers did not see time as objective 'clock' time or 'calendar time', thus deadlines for OSH projects were stretched delaying implementation at the subsidiaries. 'Rubber time' will undoubtedly caused problems of communication about deadlines between the UK parent and Malaysian subsidiaries. Finally, a primary focus on productivity, including the use of financial bonuses for
meeting and exceeding targets encouraged workers to give low priority to safety practices which they saw as slowing down work procedures and more difficult to carry out.

**Barriers to the Transfer of Practices**

**Internal Pressure (Regulative)**

The Malaysian subsidiaries were faced with conflicting pressures from the parent company (internal regulative). The subsidiaries were obligated to conform to the OSH practices that were mandated by the headquarters through the company's mission statement, corporate values and OSH policy. Employees were expected to conform to a set of standard operating procedures (SOP) and safety rules. The subsidiaries' safety performance was closely monitored through frequent audits, whilst the employees' safety performance was monitored through the annual performance appraisals. However, despite the technical efficiencies, the interviews indicate there were inefficiencies in the safety practices. For example, pressure for high performance resulted in managers giving low priority on the safety practices. At the same time pressure to keep operational cost down had led to sub-standard safety equipment causing frustrations amongst employees, which in turn led to low conformance of the safety rules. The managers' high concerns for costs had also affected employees' training resulting in low safety awareness, preventing employees to effectively carry out the practices.
The interviews indicate practice behaviours at the subsidiaries reflect a gap between the parent’s espoused values and the context in which they were applied, indicating corruption of practices. It suggests the practices had been implemented superficially, retaining only a ritual function of the practices. The subsidiaries had engaged in symbolic or ceremonial adoption (Meyer and Rowan, 1977). Ceremonial adoption can be expected when the regulatory institutional profile requires and enforces the practices, while the cognitive and normative profiles are less favourable for it (Kostova & Roth, 2002). In other words, employees do not have positive perceptions of the practices. The positive perceptions about the value of the practices are important because of their action-generating properties that facilitate not only the initial adoption of the practice but also its persistence and stability over time (Tolbert & Zucker, 1996). The subsidiaries may perceive the adoption as fad and fashion (Abrahamson, 1991; Abrahamson & Fairchild, 1999; Tolbert & Zucker, 1996). Hence, the regulatory system that enforces the practices had become counter-productive to internalization because employees view the practices as externally imposed, reflecting coercive adoption (Kostova & Roth, 2002, pg. 228).

**External Pressure (Normative, Cultural Cognitive)**

At the same time, the subsidiaries were pressured to conform to government pressures (external regulative) and (somewhat conflicting) normative and cultural-cognitive (cultural) pressures. The subsidiaries were obligated to conform to the OSH legislation mandated by the government. The subsidiaries were aware that failure to comply with the OSH legislation would result in heavy penalty including the risk of business closures;
hence they were obligated to conform to the OSH legislation to ensure their long term existence in the local environment. However, evidence from interviews in the subsidiaries as well as supplementary interviews with local experts indicated that government inspection and enforcement of safety practices were weak. The interviews also indicate strong similarity in safety behaviours with local companies in the external environment. The similarity with local companies indicates homogeneity of behaviours (DiMaggio & Powell, 1983), with the local institutional context. A strong characteristic is that managers focused more on productivity than on the safety practices. Another common characteristic is the high concerns for operational costs, affecting safety practices. Thriftiness is a common characteristic amongst managers, thus they emphasize highly on cost savings. Managers also shared common perceptions on weakness in enforcement by local authorities, resulting in low conformance to the OSH legislation. The common patterns of behaviours with local companies suggest the subsidiaries' strong connectedness, or embeddedness with the local institutional context (normative and cultural-cognitive).

**Impacts on Practice Adoption**

The regulative, normative and cultural cognitive systems of the local institution had influenced the adoption of practices at the subsidiaries. This is indicated by the level of practice adoption at the subsidiaries. Practice adoption has been conceptualized by Kostova & Roth (2002) as having two dimensions: implementation and internalization.
The different levels of implementation and internalization at the subsidiaries indicate different levels or degrees of adoption (Tolbert & Zucker, 1996). The level of adoption can be categorized in 4 groups (Kostova & Roth, 2002). The active adoption group is indicated by high level of implementation and high level of internalization, or beliefs in the value of the practice. The minimal adoption group is indicated by the lowest level of implementation and lowest level of internalization. This group essentially disavowed the practices, as reflected in relatively low levels of both implementation and internalization. In the assent adoption group people believe in the values of the practices and yet display the lowest behavioural response in terms of implementation in comparison to others. The ceremonial adoption group is characterized by a relatively high level of implementation and a low level of internalization. The distinguishing characteristic of this group was its exposure to significantly higher regulatory pressures.

The following shows the different levels of adoption responses at the subsidiaries:

**National Starch – Minimal Adoption**

National Starch is the only subsidiary in the study that started life as a local company. This subsidiary was identified from survey data to have the lowest level of implementation and lowest level of internalization compared to other subsidiaries. This indicates the subsidiary is disavowing the practices, which is reflected in the relatively low levels of both implementation and internalization. The findings suggest implementation at the subsidiary to be (in Kostova and Roth’s terms) minimal adoption.
A very significant characteristic that distinguished National Starch apart from the other subsidiaries is its especially high concerns for ‘costs’, which also reflect a significant characteristic of local Malaysian companies. This is reflected in the old buildings and machineries, outdated technology in the plants indicating low level of safety, which supports the workers perception of low safety climate in the survey. In interviews, workers in this subsidiary were also particularly critical of the quality of the safety equipment they were provided with; for example citing poor optical quality as a reason for not wearing protective eyewear. National Starch’s unwillingness to implement the ICI practices reflects low connectedness with the parent company. Unlike the other subsidiaries, the managers were reluctant to adopt the practices preferring to keep costs down and maintain the ‘old’ National Starch ways. This reflects a typical Chinese managed Malaysian company. Hence, there is a massive gap between the actual practices at the subsidiary and the parent’s expectations of the practices, indicating a ‘compatibility gap’: low cognitive and normative favourability to the practices (Kostova & Roth, 2002). It suggests the subsidiary faces stronger challenges in adopting the practices compared to other subsidiaries. This is perhaps connected to the greater embeddedness of this subsidiary in the local institutional context.

ICI Paints – Ceremonial Adoption

The pattern of implementation at ICI Paints suggests ceremonial adoption, which is characterized by a relatively high level of implementation and a low level of internalization. The distinguishing characteristic of ICI Paints was its exposure to
significantly higher regulatory pressures. ICI Paints had historical links with the parent, as it was set up as part of the company's business.

The quantitative results suggest highest implementation compared to other subsidiaries. However, the interview data point to a gap between management and shop floor perceptions. Apparently the response is elicited from a (parent) regulatory context that is perceived as exerting coercive pressures for practice adoption, which is reflected from their high formal conformance with the OSH regulatory systems. This suggests that the historical link with the parent company had led to some degree of connectedness with the parent. However, although these pressures had resulted in behavioral changes, they have less effect on the subsidiary's beliefs and attitudes towards the practices. This indicates that although implementation is high at the old subsidiary, however internalization is low due to stronger pressures from the local institutional context. This suggests that high implementation does not necessarily lead to high internalization due to local embeddeness.

ICI Paints has the financial resource to fully implement the practices. This is reflected in the state of art design of the buildings and the technology which are mostly OSH compliant. They indicate the subsidiary had invested highly in the practices and were practicing high standards of safety, suggesting highest level of safety compared to the other subsidiaries, which confirmed the findings of the quantitative survey. Like the other subsidiaries, ICI Paints is controlled by a cadre of senior ethnic Chinese managers. However, here values concerning the pursuit of wealth seemed more dominant than
‘thrifliness’. In this subsidiary, OSH practices have become integral to a strong desire to achieve business success and ‘wealth’. The values embodied in the ICI approach to OSH have been adopted but reinterpreted through the lens of local culture. An important characteristic that distinguished ICI Paints from the other subsidiaries is that the company is driven by a strong desire to achieve ‘wealth’, which reflects strong characteristics of successful Chinese managed companies.

**Uniqema and Esterol – Ceremonial Adoption**

Uniqema and Esterol have identical historical back grounds; they were both established as subsidiaries of western multinational companies but later were bought out by ICI. The quantitative results indicate high implementation but the qualitative interviews indicate implementation is higher than National Starch but lower than ICI Paints. In addition, the quantitative results indicate higher internalization than ICI Paints but the qualitative interviews point to a gap between management and shop floor perceptions. The pattern of implementation suggests that Uniqema and Esterol to somewhat reflect ceremonial adoption. The ceremonial response is due to pressure to conform to the parent’s OSH regulations. Although there were some changes in behaviors, however they do not affect the subsidiary’s beliefs towards the practices, which suggest low connectedness with the new parent company. A major characteristic of the subsidiaries’ is high concern for productivity, which had delayed OSH projects and activities. Another significant characteristic is high concern for costs and profits, particularly in Uniqema, which had
affected implementation. Another characteristic is weak enforcement, which is reflected by high non conformance of safety rules.

The above indicates that none of the ICI subsidiaries had achieved active adoption, which is reflected by high level of implementation, and strong beliefs in the values of the practice. It suggests that the subsidiaries had not achieved the overall level or “depth” of adoption (Kostova & Roth, 2002). Employees at the subsidiaries could not see the value of using the practices. The practices had not yet become part of the employees’ organizational identity (Kostova, 1999).

**Theoretical Implications**

**Inconsistencies in Institutional Contexts**

The inconsistencies in interpretations on practice implementation indicate differences in the regulative, normative and cultural-cognitive systems of the U.K. parent and the Malaysian subsidiaries. Kostova (1999) argued that the greater the difference between the institutional profiles of the home country of the practice and the recipient country, the greater the likelihood there will be a misfit between the transferred practice and the recipient environment, which, in turn, may result in difficulties or even failure of the transfer (Kostova, 1999). The transfer of practices between the United States and United Kingdom for example, will be easier to accomplish than transfer between the United
Kingdom and Malaysia, owing to the regulatory, cognitive and normative similarities or
differences between these countries. Hofstede (1980) found that national cultures vary
significantly along four indices of work-related values. On the basis of these dimensions,
countries are characterized as relatively similar to, or distant from, each other. For
example, the United Kingdom is relatively more distant from many South East Asian
countries including Malaysia.

**Difference in Interpretations between Home and Recipient Country**

There are differences in the interpretations of the practise between the home (parent) and
recipient (subsidiary) country. The practices when compared with the U.K. indicate
significant difference in perceptions and meanings. In the UK the occupational safety
and health practices are important to the company, however in Malaysia they are not seen
as important. They are mandatory legislation imposed by the U.K. government to
address the direct impact of the companies’ operations to the environment. In Malaysia,
although the practices are mandated by legislations enforcement is very lax indicating
lack of seriousness in monitoring companies’ operations and impact on environment.
Penalties for safety failures are high in the home country; both in relation to (highly
enforced) safety legislation and in terms of the potential damage to reputation. As
Kostova and Zaheer (1999) have noted company stakeholders in the home country may
punish ‘illegitimate behaviour’ even where it occurs in host countries with lax regimes. In
Malaysia, companies that do not conform to the laws were sometimes overlooked by the
authorities due to weak enforcement, or at the most were imposed with minimal fines.
The parent company regards the OSH practices as vital to its business success and to ensure its long term existence in the international environment in which they operate. Given these legitimacy pressures, most western multinational companies see the practices as an investment' rather than as a 'cost'. However, local companies do not perceive the practices as vital to business success; rather they are seen as a financial burden to the company, and affecting productivity. Most MNCs have big allocations and budgets for OSH which are considered part of the company's operational expenses. In contrast, most local companies allocate minimal budget for safety expenses since it is simply not part of their operational expenses; they are forced to use part of their business profits to implement the practices.

**Implications for our understanding of Greenfield versus Brownfield implementation**

Previous research literature emphasizes that whether an affiliate was acquired (brownfield), or set up as a greenfield operation is likely to affect management practices for two reasons. First, in a greenfield establishment parent company executives are very likely to be involved in establishing policies, the operation may even initially be run by expatriates from the parent. This is likely to lead to an imprinting of parent systems (Bartlett, C. & Ghoshal, S., 1989). Second, a greenfield operation is less likely to encounter resistance from employees or representative institutions in introducing parent company HRM policies (Taylor, S., Becchler, S., & Napier, N. 1996). Conversely an MNC acquiring an existing operation is more likely to face institutional pressures for the
maintenance or adoption of HRM policies consistent with local practice. The present study supports this claim to some extent. However, as we will see, the brownfield/greenfield dichotomy is insufficient to capture the prior ownership possibilities which bear on the extent of local embeddedness. Subsidiaries which have been acquired but previously owned by another multinational seem to constitute an intermediate case. The key issue is local embeddedness. Subsidiaries which were previously owned by another multi-national are likely to be less locally embedded than subsidiaries which started as a locally owned firm.

National Starch – Brownfield Company

National Starch had started as a local company before its acquisition by ICI (‘Brownfield’ company). The company started its humble beginning as a small medium enterprise (SME) founded by a group of local Chinese businessmen in Kuala Lumpur. The quantitative survey results show National Starch had lowest implementation and internalization of the practices, which is confirmed by the interviews. The findings are consistent with previous research which suggests that Brownfield companies are reluctant to adopt foreign practices because of high normative and cultural-cognitive pressures from the local institutional context.
ICI Paints – Greenfield Company

ICI Paints (Old Subsidiary) had started as a ‘Greenfield’ company. It was established as a business subsidiary of the U.K. parent company more than 50 years ago. The subsidiary had been introduced to the OSH practices since its establishment indicating longer exposures to the ICI practices. The high (formal) conformance to the OSH practices indicates higher identification with the parent company compared to the other subsidiaries. The findings again replicate previous research findings which suggest that Greenfield investments which are typically founded by MNC employees tend to replicate key features of the parent company (Brooke and Remmers 1970; Baartlett and Ghoshal 1989).

Uniqema and Esterol - The intermediate case

Uniqema and Esterol are not exactly either ‘Greenfield’ or Brownfield companies as they were established as business subsidiaries of other foreign MNCs and were later acquired by the parent company. The quantitative results show these subsidiaries to have high implementation and internalization. Although they conform to a definition of Brownfield sites, they are much closer in outcomes to the Greenfield case. The clear implication is that Greenfield versus Brownfield establishment is less the issue than the ways in which prior ownership affects local embeddedness.
While these results do confirm the suggestions by Bartlett and Ghoshal (1999) and Taylor, Beechler and Napier (1996) that greenfield sites more readily adopt parent practices, they also suggest an important nuance. Not all brownfield sites are equally embedded in local institutions. Prior ownership by another multinational firm may place them much closer to the Greenfield case.

Summary

The above findings indicate the stage of economic development and the normative and cultural cognitive systems of the local institution had influenced the adoption of practices at the subsidiaries. It also indicates the foreign subsidiaries to be strongly embedded in the host country institution. The external pressures conflict with the internal regulative system of the parent company and influenced practice behaviours, constraining the process of transfer and adoption of the practices at the subsidiaries.

Chapter 6 discusses the conclusion to the thesis.
CHAPTER 6 - CONCLUSION

Introduction

The study highlights complexities in the transfer and adoption of parent’s practices across national boundaries. It shows that the institutional context of the host country have influenced the process of transfer and adoption at the subsidiaries. Specifically the stage of economic development and the normative, cultural-cognitive systems, in particular ethnic stratification had affected implementation and internalization at the subsidiaries.

This chapter (6) discusses the contributions of the findings to theory, their implications for government policy and for human resource management.

Support for Existing Theory

Perception Gaps between Headquarters and Subsidiaries

The study identified perception gaps between the UK headquarters and the Malaysian subsidiaries (J. Birkinshaw et al., 2000). When headquarters transfer the practices, they expect the subsidiaries to adopt the practices without many difficulties. However, the transfer of practices to the subsidiaries was not a simple one; rather it was faced with complexities. This is because managers at the subsidiaries had different experiences,
levels of interpretations and worldviews, which had interfered with the process of implementation and internalization of the practices. In this context, managers at the subsidiaries had little experience with the practices, they lack understanding on the values attached to the practices and did not regard them as important. Hence, the ‘best practices’ identified by headquarters were faced with problems because inaccurate perceptions had resulted in the ‘transfer of mediocre practices’ to the subsidiaries. The implication is that effective transfer of management practices in the MNC should first emphasized on a shared understanding of what the values of the practices are, and only then to focus on systems for leveraging and transferring the knowledge relating to the practices. The study confirms that ‘perception gaps’ exist between HQ and subsidiaries because their different experiences had led to different level of information, which had further led to difference in perceptions (J. Birkinshaw et al., 2000).

**Decoupling of Practices**

Pressure from the parent had led to decoupling of practices and mostly ceremonial adoption at the subsidiaries. Managers at the subsidiaries conformed to the demands of the parent to demonstrate that they were at least trying to improve safety and health conditions in the work environment, however they did not entirely believe in the practices because of other important values. They believed more in achieving high productivity and performance since it would give the business more profit. It is important to note that this is not simply a matter of rational economic calculation. Beliefs vary between contexts about the relationship between safety performance and profit. In the UK context
it is commonplace to understand a good safety record as contribution to financial outcomes, whereas in Malaysia, the OSH practices are understood primarily as a cost, complying with a regulatory regime. Workers conform to the practices because of the demands by their managers and comply mainly when in sight of managers. The study supports the notion that conformance at the subsidiaries is due to coercive pressures (DiMaggio & Powell, 1983).

Homogeneity of Behaviors with Local Institution

The safety attitude and behaviors at the subsidiaries were similar with that of other local companies, reflecting homogenization of behaviors with the wider environment (DiMaggio and Powell, 1983). Since employees are 'carriers' of the institutional environment (Scott, 2000), they tend to replicate the behaviors of employees from other local companies in the external environment. Similarities in behaviors are also reflected in the managers' business attitudes (M.L. Storz 1999), leadership style and managerial practices (J. C. Kennedy, 2002). The managers' high emphasis for cost savings, productivity and results, profits and business success reflect the characteristics of managers from other local companies in the external environment. At the workers' level, their lack of assertiveness, unopenness to feedbacks, and high consideration for others reflect the characteristics of employees from local companies in the external environment. This also supports the notion that adoption responses at the foreign subsidiaries are influenced by the characteristics of the local institutional context (Kostova & Roth, 1999).
'Isomorphism' or Embeddedness with Local Institution

The similarity of employees' behaviors with the wider institutional environment also suggests isomorphism (DiMaggio and Powell, 1983), or embeddedness with the local institutional context. While the parent is exerting pressure on the subsidiaries to adopt the practices, at the same time, the subsidiaries were met with somewhat conflicting pressure from the local institutional context. Thus, the subsidiaries were faced with tensions due to pressures from the local institution on one hand, and the parent company on the other. However, pressure to conform to the normative, cultural-cognitive systems of the local institutional context was high, which was reflected at the subsidiaries as they continually face the challenging task to adopt the practices. This underscores the points made by DiMaggio & Powell, (1983) regarding isomorphism of companies with the local environment. It also illustrates the point made by Scott, (2000) who argued about the powerful forces of institutional pillars and cultural carriers in the institutional environment, which suggests that institutions are relatively resistant to change (Jepperson, 1991) because of the more enduring features of social life. This points to the fact that MNCs should not expect their foreign subsidiaries to adopt management practices within a short period of time, rather it will take a very long time to achieve the state of institutionalization because of the strong forces of the local institutional context.
Contribution to understanding of processes in the cross national transfer of management practices

The key contribution of the study is in applying institutional theory to produce a better understanding on the processes of the cross national transfer of safety practices within MNCs. The study provide researchers better understanding in applying institutional theory to produce a better understanding on the processes of the cross national transfer of safety practices in MNCs. The study shows that the stage of economic development and ethnic stratification are important features of host country context which can influence the success of the transfer and adoption of management practices to the subsidiaries.

Pressures from Local Institution

Economic Context

An important finding is the significant role played by the government, which had brought about greater regulative focus on health and safety. However, weak enforcement and focus on improving productivity at the government and company level serve to undermine these legislative intentions. Within the company, this translates into a 'lip-service' approach to health and safety, in contrast to the strong focus on driving
productivity improvement using HR approaches such as performance reward. Given the low wages, financial incentives prove a particularly compelling incentive for workers to bypass safety rules in order to achieve productivity targets. Besides, the economic position of the host country, and the financial position of the subsidiaries are the other key factors that influenced the adoption process. Given the weak economic position, the weak enforcement of OSH legislation and pressure for productivity by the government had resulted in low priority for the OSH practices in the host country. Companies in developing countries are less likely to suffer a crisis of legitimacy if faced with safety failures. The parent company will have to balance this against the probability of such failures damaging their reputation in other countries in which they operate.

Normative, Cultural Cognitive Context

In analyzing the cultural-cognitive system of the institution, there is a need to consider the effects of translating the practices between three separate cultural contexts, that is from English to Chinese and then to Malay. Thus, there are multiple stages of the translation process - from UK parent to regional headquarters (HQ), from regional HQ to Chinese senior managers; from Chinese managers to Malay workforce. Pressures by the parent to adopt the practices are not automatically accepted by the foreign subsidiaries because they are interpreted, given meaning, and responded to by actors through different belief systems representing different ethnicities. Ethnic diversity and heterogeneous beliefs had influenced the meaning of the practices at the subsidiaries because employees bring with them different interpretive frameworks and social definitions of behavior to
the organization, which diminish consensus and unquestioning adherence to taken-for-granted practices. In other words actors are not passive rather they make choices in the interpretations of the meaning put forth. Although the parent company has the power to impose changes on the subsidiaries, the belief systems of the multi-ethnic workforce and competing pressures on them make adoption difficult. This is because the transfer and adoption of practices is based on the transfer of meanings thus making the adoption process more complex than anticipated by senior management.

Features of the local culture had led to both efficient as well as inefficient safety behaviors. From the efficiency perspective, managers put high emphasis on productivity, performance and business success. For the employees, the spirit of teamwork, respect cooperation and relationship had led to a smooth process of implementation, and with minimal conflicts. These behaviors were a source of strength in the implementation process. However, there were also aspects of culture that had led to inefficiencies. For example, the workers' lack of openness and assertiveness had led to poor feedback on issues relating to the practices. This is further compounded by the hierarchal (high power distance) orientation of managers. In addition, the orientation to high sensitivity to protecting 'face' of both managers and workers had led to weak enforcement. OSH implementation processes designed for a UK context were poorly suited to ensuring adoption in this very different cultural context. Hence, cultural values can be seen as a major barrier to the transfer and adoption of the OSH practice because they involved the transfer of meanings, which failed to be re-expressed in terms of local cultural values.
Employees’ response to the practices is based on how they see and understand these meanings.

The study indicates that economic and cultural-cognitive pressures have impeded the successful transfer and adoption of practices at the Malaysian subsidiaries. Hence, MNC companies should not only focus on technical projects and skills, but should also ensure that the subsidiaries have the financial means to support the practices, as well as the leadership skills to manage safety behaviours.

Differences in Institutional Context

Differences in the parent (Western) and subsidiaries (South East Asian) institutional contexts had made the cross national transfer of OSH practices complex. The practices, which were originally developed by the U.K. parent were perceived and interpreted based on U.K. institutional context. However, when the practices were transferred across transnational boundaries they were perceived and interpreted based on Malaysian institutional context. When the practices reach the subsidiaries, they were again interpreted and re-interpreted across different ethnic cultural values. Managers interpret the practices from the perspective of Chinese Confucian values while employees at the shop floor reinterpret the practices from the perspective of Malay Budi values. By the time the practices reached the workers at the shop floor, the meaning of the practices differ greatly from the original meaning of the parent company. Hence, the interpretation and re-interpretations of the practices had partially corrupted the practices. Besides the
practices were seen as less favourable by the Malaysian subsidiaries because they were not consistent with the local institutional context. The subsidiaries did not view the practices as positive since they have difficulties in understanding its 'real' meaning. A particular issue is that the kind of HR practices which will support effective adoption in a Malaysian context may need to be quite different than a UK context. As noted earlier, local culture and the complex relationship between Chinese managers and Bumiputra workforce make a UK style OSH implementation problematic. However, economic factors are also very important. Malaysian workers are paid at close to subsistence levels, thus financial incentives for productivity can provide a particularly compelling reason to shortcut OSH practices. Workers value their safety less, relative to the opportunity to improve the economic welfare of their families.

Non conformance to safety regulations is another issue at the subsidiaries. For example, local employees tend to ignore their colleagues' breaches of the safety rules, behaviour which is linked to high sensitivity for feelings and the avoidance of conflicts. On the contrary, in the U.K. because of higher degree of 'openness', it is more likely that employees would reprimand their colleagues for ignoring the safety rules. Further, employees at the subsidiaries also tend to 'cover up', or protect their colleagues by not reporting the incidents to their managers, which is linked to high consideration for others, indicating that employees' safety attitude had to do more with the 'heart' more than the logico-deductive process (M.L. Storz, 1999). This implies that in the context of human resource management, attempts to introduce the 360 degrees performance management system may not be ideal for Malaysian organizations since the lack of openness, high
sensitivity for feelings and high consideration for others may affect the technical efficiency. Such practices if introduced to Malaysian subsidiaries must first deal with the inefficient behaviors related to the local cultural issues, and then only to leverage on the systems and the processes. This is because inconsistencies in the institutional context between the parent and the recipient countries may prevent successful implementation.

**Greenfield Establishment**

Another important contribution to our understanding of the parent subsidiary relationship concerns the need to take a more nuanced approach to the impact of the type of subsidiary establishment. This study points to the need to have a more subtle understanding of what we mean by Greenfield and Brownfield companies. MNCs do not only acquire local companies, but also companies from other foreign MNCs, for example in mergers. This study finds that such companies tend to show less resistance to the new parent's practices compared to Brownfield companies. A number of scholars in the field have argued that transfer is easiest to Greenfield sites. This study supports the notion that transfer is easier in the Greenfield companies compared to non Greenfield companies. The relationship that had been established with the parent company over the years had made transfer to the Greenfield company less complex. However, transfer of practices to non Greenfield companies is less easy because relationship with the parent is short, and had not been properly established.
Implications for Government Policies

Political pressure had forced local companies to focus on productivity. The government's shift to productivity to propel economic growth had shaped the character of local companies. Most local companies were already focusing on performance due to economic pressure, and the government's policy had further intensified their emphasis for productivity. Pressure from the government had successfully directed local companies to focus their efforts on productivity but it had led to neglect of other important practices, such as safety. Additionally, weak enforcement and lower opportunities for workers to seek legal and financial redress for injury suggest that the economic costs to companies for safety failures are much lower in Malaysia than in Britain. The local companies' priority for productivity was replicated by subsidiaries of MNCs. However, it seems likely that both firms and the country pay a hidden cost of safety failures in employee illness and absences.

While pressure to improve productivity amongst local companies is a positive step to push economic growth, however it can also result in negative attitude towards other practices such as occupational safety and health practices, due to unequal emphasis by the government. Further, poor OSH compliance may well have longer term detrimental effects on productivity. Thus, it is important for the government to place equal emphasis both on productivity as well as on employees' health and safety. The lack of emphasis for occupational safety and health could lead to financial losses for the companies due to high rate of industrial accidents and health issues involving long medical leaves and high medical costs. Hence, governments should exert equal pressure on the companies to
adopt productivity, as well as occupational safety and health practices because they are all important to the country’s economic growth. Because political pressure is one of the sources of institutional changes (Oliver, 1991), the government as an active agency could play a major role to institutionalize these practices.

**Implications for Human Resource Management**

It is common for the parent company to transfer HR policies and practices to their foreign subsidiaries to promote best practices. The policies and practices that had been developed by the MNC to improve management practices are seen as superior because they are well researched and had been successfully implemented at the headquarters (Kostova, 1999). Because the practices had proven to be successful at the headquarters, it is assumed that it would also work well in the foreign subsidiaries. However, in view of different institutional contexts, the transfer of some aspects of the HR practices may become ineffective or counter-productive at the subsidiaries.

**Performance Management**

Most foreign subsidiaries benefit from superior human resource management systems that had been developed by the MNC’s headquarters. However due to differences in the normative, cultural-cognitive context, the western approach to assess performance may not be compatible with the foreign subsidiaries and may face problems of implementation.
or even rejections. Given that employees tend to be ruled by the heart more than the head, OSH measurement should emphasize more on objectivity, for example, the number of near incidents and actual incidents, and less on subjective comments, to avoid influence of cultural issues. Subjective comments may encourage the supervisor to give more positive feedback than what the worker deserves. At the same time, when giving feedbacks the supervisor may be less specific, which may cause the worker to be confused. These may lead to inefficiencies of the performance appraisal system.

**Reward System**

The economic context has implications for the HR reward system. Most Malaysian companies tend to formally implement practices such as productivity and occupational safety and health practices to support business performance. However, their reward system tends to focus only on productivity, rather than safety. This will constrain the company’s initiative to promote safety culture since employees tend to put their efforts more on productivity, rather than the safety practices because of high emphasis on the rewards. Hence, reward systems should be balanced to include OSH practices that are being driven by the company. Cultural contexts may also have direct impacts on the reward system. Managers may use more of the ‘heart’ than the ‘head’ when deciding on rewards. This may interfere with the rewards because managers are more likely to be biased when identifying employees for rewards. Hence, the cultural context has direct impact on the reward system in which performance and results may be replaced by biased perceptions, defeating the very purpose of the reward system.
Discipline

Most companies have a set of policy, procedures and processes to manage discipline at the workplace. Such rules may be transferred from the parent company or may be developed at the subsidiaries. However, the issue confronting Malaysian companies is not so much about the lack of disciplinary procedures, rather, it is about the inability to implement them efficiently. In a culture where high consideration and sensitivity for others is the norm, most often than not, the procedures that were developed by HR to address disciplinary issues were not properly enforced. Instead, it led to the case being dismissed, or the employees let off with verbal or written warnings. This would encourage employees to ignore the practices, since they perceive the company as not serious about the practices. The HR policy is an important medium through which institutional pressures are embodied that may have an adverse affect on the safety behaviours. A review of HR policies is necessary because of unintended and often adverse effects on safety behaviors.

Implications for Training and Development

Some aspects of the cultural values at the subsidiaries are a source of strength to the implementation process that is valuable to the practices. However, there are also some aspects of cultural values that may constrain the implementation process leading to inefficiencies. For example, the issue of lack of openness, assertiveness and directness
had affected the process of implementation. These behaviors could be addressed through training workshops.

**Behavioral Safety**

A major problem to the transfer and adoption is the lack of understanding on the meanings of the practices. Employees could only see the practices as a set of regulations to which they must comply, which suggests that they could not understand the real meaning attached to the practices. Behavioral training was also supported by the OSH managers of Esterol and Uniqema, who had pointed out to its importance in the improvement of safety attitude and behaviors. Safety training should first focus on behavioral training and only then on skills training. ‘Behavioral’ training is important in addressing perception gaps and improves understanding on the real values of the safety practices. It helps to remove misconceptions about the practices and understand the consequences of inefficient safety acts. Behavioral training stresses on unsafe conditions and unsafe acts as well as on their consequences to the individuals. Unsafe condition could be improved through work place inspection, but unsafe act could only be improved through change in attitude. Thus behavioral training which focuses on the development of the individual’s mindset is important for the improvement of behaviors.
Communication

Another common problem is the lack of assertiveness affecting communication between workers and managers. The high power distance had further widened the communication gap and affected feedbacks on the practices. Training on effective communication could help managers and workers to improve communication and improve feedback on practices.

Decision Making

Another issue that was identified was the ineffectiveness of the decision making process, which could be addressed by training. As indicated in the interviews, workers did not participate much during the safety committee meetings. Managers tend to make most decisions relating to work safety without involving workers, thus workers felt frustrated because they were unhappy with some of the decisions made. Some of safety procedures (SOP) affecting the workers were not acceptable to them because they see it as a waste of time. Effective participation in the decision making process can be addressed through training to encourage participation and improve the decision making process for managers and workers.
Time Management

Another issue that was highlighted was poor time management, which had affected deadlines in safety projects. Most of the subsidiaries were slow to complete the engineering projects related to the practices and stretching deadlines. In the business sense, delays in project schedules are viewed as unproductive. Since the problem of time management is a cultural issue, the training program should focus both on the behavioural issues, such as consequences of attitudes, and on the skills aspects, focusing on 'how to'.

Conflict Management

Another main issue was the tendency for managers and workers to place high importance on sensitivity due to avoidance of conflicts. For example, managers tend to overlook employees who ignore the safety rules. Workers tend to hide their dissatisfactions if they were unhappy with the quality of the safety equipment. The avoidance of conflicts had affected the efficiency of the practices. Since this is a cultural issue, the training should take on a more behavioral approach rather than just focusing on skills to reduce the mental barriers that had prevented employees for effectively carrying out the practices. The importance of training cannot be underestimated since it helps managers and workers to effectively carry out the practices and reduce ineffective behaviors that prevent the successful implementation of practices.
Limitations of Study

There are several limitations to the study, which are highlighted below.

Economic Context

The study had investigated in-depth the normative, cultural-cognitive context of the host country institution and its impacts on the transfer and adoption of practices. However, the study could not examine in-depth the financial position of the subsidiaries. Statistics on the subsidiaries' annual financial reports and relevant indicators on financial performance could not be obtained due to confidentiality and the sensitive nature of the data. A full view of statistical data of the subsidiaries' financial performance could bring more light on the impact of the economic context in the adoption of OSH practices.

Ethnic Stratification

The study focused mainly on Chinese and Malay cultural values, since they are the dominant ethnic groups representing managers and workers at the subsidiaries. However, Malaysia is a multi-ethnic country comprising of three major ethnic groups: Malays, Chinese, and Indians. The cultural values of the Indian ethnic group should be included when examining the normative, cultural-cognitive context of the local institution to see the impacts of ethnic stratification to the practices. Thus, while a major finding of this
study concerns the importance of the ethnic stratification of the host country, the case study only gives a partial view of this important element of Malaysian economic life.

Isomorphism

The study identified safety behaviors at the subsidiaries to be related to isomorphism, with the wider institutional environment. However, the study was based on greenfield and brownfield subsidiaries belonging to only one U.K. MNC company. It was also beyond the scope of the study to examine and compare with several other foreign MNCS, for example U.S. and Japanese MNCs. Therefore, a comparison on the transfer and adoption of practices at greenfield and brownfield MNC subsidiaries between different nationalities would provide stronger validity.

Implications for Future Research

Economic Context

It would be relevant to test the impact of the economic context. Future research could examine the impact of economic context in the transfer and adoption of safety practices at the foreign subsidiaries of a major MNC company. The foreign subsidiaries should be located in several host countries at different levels of economic development i.e. third world country, developing country and developed country. For example, a U.S. MNC
whose subsidiaries are based in Indonesia (third world country), Malaysia (developing country) and Singapore (developed country) to determine impact of practices based on economic context.

**Isomorphism**

It would be useful to further investigate the effects of isomorphism in the adoption of practices. Future research should examine isomorphism with host country institutional environment using greenfield and brownfield companies as the target groups. Researchers could examine and compare greenfield and brownfield companies belonging to different MNCs, for example, U.S. and Japanese MNCs, to study the effects of isomorphism in the adoption of practices. The focus of study could usefully include Human Resource management policies and systems, such as the 360 degree performance management system, or the reward system.

**Conclusion**

This study shows that while it is important to pay attention to the legal and cultural conditions that organizations face (Scott, 1983), the economic position of the host country should not be overlooked, because the institutional context is rather more than just local mindset (Kostova and Roth, 2002). While laws and culture are important components of the institutional context, an institutional perspective alerts us to wider
issues. It allows us to see the way in which the Malaysian society is ethnically and culturally stratified and the relationship of these strata to the country's economic, cultural and legal systems. Unlike a purely cultural approach, the institutional perspective draws attention to the web of social relations in which culture is set. In particular, the institutional lens helps us see that not only are there two major and different cultural groups within the subsidiaries - Chinese and Malays - but that relationships between these two groups are set in a wider context of the ethnic and economic stratification of Malaysian society. Similarly the relationship between the mainly Malay work-force, the mostly Chinese managers and the British parent company senior management is set in the context of Malaysia's evolution away from a British colonial past. This ethnic stratification had become a key part of the local institutional context.

The study had identified many key factors that constrained the adoption of the parent's practices within the context of dual institutional environments. Most significant is that pressures from the local institutional environment, that is economic and cultural-cognitive contexts, had influenced safety attitudes and behaviors thus affecting the transfer and adoption of practices at the subsidiaries. Thus, the transfer and adoption of parent's practices at the foreign subsidiaries is not a simple process rather it is a highly complex process involving not only the regulatory system, but most important the normative and cultural-cognitive systems of the host country institution. Although the parent's practices were supported by government mandates and laws, weak enforcement had undermined the regulative system. The parent companies may have the power to exert pressure on foreign subsidiaries to conform with the practices, but these subsidiaries
may not see the positive value of the practices due to pressures exerted by the normative and cultural-cognitive systems, reflecting the powerful forces of the local institutional context. Although this was a study of only one, albeit large, MNC organization, it was far reaching and used several methods systematically to investigate an important area, health and safety enforcement in dangerous environments in a developing country. The conclusions suggest routes for much useful further investigation as well as providing many practical recommendations.
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