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**Influences on the Cross-Cultural Transferability of
Management Control Systems: The Case of Major
Taiwanese Information Technology Multinationals**

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**A Thesis
Submitted for the Qualification of Doctor of Philosophy**

**Warwick Business School
University of Warwick**

January, 1999

Declaration

This is to declare that:

- I am responsible for the work submitted in this thesis.
- This work has been written by me.
- All verbatim extracts have been distinguished and the sources specifically acknowledged.
- This work has not previously been submitted within a degree programme at this or any other institution.

Signer: Cheng-Li Huang

Date: 31 January, 1999

Acknowledgements

Four years are a short time for a young person, but it is a long time for a person nearly fifty years old. This research was carried out day in, day out with almost never a break.

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Abstract

Influences on the Cross-cultural Transferability of Management Control Systems: The Case of Major Taiwanese Information Technology Multinationals

By Cheng-Li Huang, Warwick, UK, January, 1999

This study attempts to explore how national culture, leaders' financial control factors, and other situational factors affect the transference of management control systems (MCSs) within MNCs. If national cultural factors are important, then a "fitting" policy may be better than a "shared" policy and the corporation would take into account the host national culture and so adjust its MCSs in foreign operations. However, if a firm's leader keeps tight financial control, then a "shared" policy may be maintained and its headquarters can more easily transfer its system to its foreign operations. In addition, some situational factors of the overseas operation could affect the transference of MCSs from headquarters. This study not only controls for some contingencies but also carefully selects relevant situational factors to observe the relationship between MCS transfer and those contingencies.

This research uses the comparative case study method with a qualitative approach to explore the relationships of MCS transfer and national culture, leaders' financial control factors and other situational factors. In particular, the study strongly emphasises the elements of national culture and financial control factors. For achieving the research purposes, four main propositions in the research are explored.

Using Hofstede's cultural dimensions, the first proposition compares the MCSs of Taiwanese and European operations of four Taiwanese case firms. However, only five out of the ten components of MCSs are shown to be influenced by cultural factors. Within a MNC, national culture may often be imbedded in relevant contingencies. The second proposition representing the relationships between national culture and leaders' financial control factors was also examined, but these relationships were not found to be strong in this research.

A leaders' financial control style is based on operating philosophy representing special management values. The third proposition, the relationship between leaders' financial control style and the transference of MCSs, showed a strong relationship. Overall, except for the rewarding process, the leaders' financial control factors had obvious impacts on the transference of MCSs.

Four situational factors including size, age, approach to acquisition, and business focus of European operations were observed in the research. The fourth proposition assesses whether these factors will significantly affect the transference of MCSs from Taiwanese operations to European operations. The results show that significant impacts from the factors of size and business focus exist.

The main conclusions from the research are, firstly, that the higher the degree of the leaders' financial control in a MNC, the more the MCSs were transferred to overseas operations, and vice versa. Secondly, the higher the degree of financial control in one MNC, the lower the impact of MCS design from host cultural factors, and vice versa. Finally, the more favourable the situational environment in a firm's overseas operation, the more the MCSs could be transferred to the operation.

Key words: MCSs, System transfer, MNCs, Cross-cultural comparison

博士論文摘要

管理控制制度移植之影響因素：台灣主要資訊科技多國籍企業個案

黃振豐，University of Warwick, UK, January, 1999

本研究旨在探討國家文化、領導者財務控制因素、及其他情境變數對多國籍企業管理控制制度移植之影響。如果國家文化為決定性因素，則「適合」政策要較「共享」政策為佳，公司應考量各地主國文化，設計其海外公司之管理控制制度。然而，如果公司領導人保持高度財務控制風格，則可能維持「共享」政策，其公司總部可能移植其制度至海外公司。此外，海外公司特有之情境變數，亦可能影響管理控制制度之設計。本研究不僅控制一些環境因素，而且亦選擇相關情境變數，以觀察其對管理控制制度移植之關係。

本研究採比較個案研究，並利用訪談定性研究，針對國家文化、領導者財務控制因素、及其他情境變數對管理控制制度移植之影響，建立四項研究命題，以供研究推論並構建一整體性模式。

運用 Hofstede 之國家文化構面，比較四個台灣公司個案之台灣與歐洲部門之管理控制制度。命題一中十個制度要素有五個顯示深受文化因素影響，許多國家文化因素顯然仍潛藏於相關變數內。而命題二檢驗國家文化與領導者財務控制因素之關係，並未發現強烈關係存在。

領導控制風格導源於代表管理價值之經營理念，命題三顯示領導因素與管理控制制度存在強烈的關係。整體而言，除報酬程序外，領導控制風格明顯的影響管理控制制度之移植。

命題四檢驗含括個案之歐洲子公司之規模、設立時間、取得方法、及商業重心等四個情境變數對管理控制制度移植的影響，結果發現規模及商業重心有顯著的影響。

本研究主要結論有三項：第一，在多國籍企業，領導者財務控制愈強，其管理控制制度移植愈多；反之，亦然。第二，財務控制程度愈強，其海外公司管理控制制度之設計受當地國家文化影響愈弱；反之，亦然。最後，許多有利海外公司之情境變數，亦有助於管理控制制度之移植。

關鍵字：管理控制制度，制度移植，多國籍制度設計，跨文化比較

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Abbreviation

IT	Information Technology
MNCs	Multinational Corporations
MCSs	Management Control Systems
CFB	Chinese Family Business
JRT	Job-related Tension
JRI	Job Relevant Information
SMEs	Small and Medium Enterprises
PC	Personal Computer
TAC	Taipei Computer Association
OEM	Original Equipment Manufacturers
ODM	Original Design Manufacturers
LCD	Liquidity Crystal Description
HDD	Hard Disk Drive
DRAM	Dynamic Random Access Memory
ASICs	Application-specific Integrated Circuits
BUs	Business Units
RBUs	Regional Business Units
SBUs	Strategic Business Units
MIS	Management Information System
ISO	International Standard Organisation
LED	Light Emitting Diode
CIS	Computer Image System
CD	Compact Disc
AAA	American Accountant Association
MMS	Modularised Manufacturing System
JIT	Just-in-time
HRM	Human Resource Management

1. Introduction

- 1.1 Overview
 - 1.2 Purpose of the Research
 - 1.3 Research Scope
 - 1.4 Significance of the Research
 - 1.5 Organisation of the Thesis
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1.1 Overview

With increasing business globalisation, multinational corporations (MNCs) have more opportunities to own and control profit-making activities in more than one country. These activities may include not only the more familiar marketing and distribution operations, but also such potentially high value activities as R & D and innovation (Pearce, 1987; see Nobes and Parker, 1988: 1). It is becoming an increasingly important issue to MNCs to consider the feasibility of transferring management control systems (MCSs) across borders, i.e. whether those companies can transfer their domestic MCSs into overseas operations. If not, do they need to redesign or adjust their MCSs to fit what is necessary for the host nation ?

No nation holds a monopoly of technical knowledge or managerial know-how. Most advantages in technology or managerial approach can be transferred from one country to another without great difficulty, since only a few people need to have this knowledge to make it available for general use (Koontz 1969: 417). If the managerial know-how is regarded as science, why cannot the managerial control system be transferred abroad? Actually, the export of American managerial know-how as well as technological know-how has yielded great dividends (Gonzalez and McMillan 1961: 39; also see Koontz 1969: 419). A great number of progressive local firms in developing countries often import management systems and techniques from the more industrialised nations. Indeed, such importation may be encouraged by educational institutions and consultants (Frucot and Shearon, 1991: 81). One of the major post-war aspects is the standardisation of managerial technologies and strategic recipes (Whitley, 1994: 106). Many management techniques so completely reflect underlying proved principles that cultural differences often have little effect on their applicability (Koontz 1969: 422). If the MCS is regarded as an internal system in a MNC, there is no reason to doubt the transferability of MCS, at least on the level of the theory, principle, and framework of the MCS.

However, those who take the position that management is behaviourally or culturally bound reason that, since management practices differ and people and their cultural environments vary, management theory and principles are not applicable in materially different cultural environments (Koontz 1969: 418). Cultural interface can occur between the management of the subsidiary and that of the parent company. The diverse cultural backgrounds translate into a lack of cognitive similarities which can significantly hamper communication (Stening, 1979; also see Frucot and Shearon, 1991: 82). As principles are only descriptive and predictive, they do not become normative (i. e., state or imply what 'ought' to be) until the user applies them with a system of values (for example efficiency or effectiveness of a group effort) in mind (Koontz 1969: 421). Qualified managers need to identify many constraints in the environment and culture which significantly influence management effectiveness when they design their management systems. Management controls that work effectively in one national setting will have a different level of effectiveness if used in a different national setting (Chow, Shields, and Wu, 1996: 1). This does not mean that the fundamentals of management are different, but it does mean that the researcher must carefully distinguish between these fundamentals and their application. This is the essence of "design" as engineers have found who must design a "black box" to operate in difficult environments (Koontz 1969: 417). The structure of a MCS can be viewed not only as an institutional answer to handle these power relationships but also as the rules of the game members have to play. Within the limits of the game, the players' strategies are rational; but the game itself is a man-made construct which is heavily dependent on the cultural capacities and attitudes of the people concerned (Crozier, 1973: 49-50; Negandhi, 1975: 339). There is no single form of internationalisation that has taken place in all sectors and there is no particular reason to expect firms and markets to follow a single pattern of international development (Whitley, 1994: 106).

There are two main strands of comparative MCS research. One of them is the approach of contingency theory which emphasises the relationship between the environment and organisation. A great number of contingent variables are selected in the cross-border comparative research. Under this approach, optimal MCSs depend on the relevant elements of a firm's environment, and cultural factors are embedded in different contingencies. The best contribution of contingency theory is that managers need to keep a dynamic role in monitoring and achieving an effective "fit" with their environment. However, because of drawbacks such as the piecemeal nature of contingencies (Fisher, 1995: 24), futurism and the posture of value neutrality (Wooton, 1977: 435; Birnberg et al., 1992: 117), it is often difficult to get a sufficient explanation (Drazin & Van de Ven, 1985: 514) in cross-border comparative research.

Another main strand of comparative MCS research is cross-cultural research. Cross-national or cross-cultural organisations or systems are compared by some cultural attributes, especially Hofstede's dimensions. Some culturalists have argued it is easier to explain differences and similarities by cultural attributes or dimensions than by contingent variables. Over the last decade, cultural research on MCS design was much more extensive than research into contingency theory, and the trend seems to be increasing, at least to date. However, most cultural research may still be considered exploratory and most researchers use Hofstede's cultural dimensions and scores to explain their findings. Different explanations, the giving of different priority, or weight among Hofstede's cultural dimensions have made comparison difficult. As a result, there has been a frequent failure to explicate the theoretical link between the cultural dimension and MCS characteristics (Harrison and McKinnon, 1996: 38). In addition, most cultural researchers select the quantitative survey as their research approach. Only a few researchers use the qualitative approach to probe an informant's view. Collecting source data through multiple approaches seems a better way to strengthen research reliability. Finally, some culturalists found many contingent variables really affecting the design of MCSs in cross-cultural comparison. Some of them controlled for contingencies by selecting their sample carefully, and a few researchers also considered those variables in their cross-cultural research.

An overview of cross-cultural or cross-national research on MCS transfer in the literature shows most researchers used an indirect approach based on cultural dimensions or attributes, or contingent variables, for their inferences. Some researchers compare intensely MCSs from different countries within one country. A few researchers themselves contributed directly to a system transfer within MNCs, but most of them emphasised the organisational system or structure. No literature was found concerning comprehensive MCS transfer within MNCs, especially combining cultural theory and contingency theory with a qualitative approach. Until now the direct observation of MCS transfer within MNCs is still virgin territory.

1.2 Purpose of the Research

This study attempts to explore how national culture affects the design of MCSs within a MNC. If culture matters, an organisation's policies can lose their effectiveness when its cultural environment changes (Hofstede, 1980). If national cultural factors are important, then a "fitting" policy to overseas operations may be better than a "shared" policy. The corporation would consider the host national culture to adjust its MCSs in foreign operations. In contrast, if national cultural differences are minor factors, then headquarters can more easily transfer its system to its foreign

operations.

According to Hofstede's survey (1980/1984) and the Chinese value survey (1987), Taiwan and West European countries have important cultural differences. Because of great differences in power distance, individualism, and Confucian dynamism between European countries and Taiwan, it is possible that their systems exhibit some differences. The next question is which components or functions are influenced by national culture? This study will compare the MCSs of Taiwanese and European operations by qualitative interviews.

National culture affects not only the behaviour of managers both in domestic and foreign operations, but also the behaviour of senior managers at headquarters. Does the national culture have close relationships with leaders' financial control factors? Do the thoughts of these senior managers affect the MCSs of foreign operations? Does the leadership philosophy significantly affect the MCSs? How do leaders' financial control styles affect the transference of MCSs? This study will explore not only the relationship between the national culture of the home company and financial control factors, but also the relationship between financial control factors and the MCSs through in-depth interviews.

In addition to national culture and financial control factors, other situational factors such as size, age, approach to acquisition, and business focus of the overseas operation also could affect the transference of MCSs from headquarters. How great is the impact from these contingent factors? According to contingency theory, this study not only controls some contingencies but also carefully selects relevant situational factors to observe the relationship between MCS transfer and those contingencies.

Overall, for examining the transferability of MCSs to European operations from Taiwanese operations, this research has the following research purposes:

- To compare the MCSs between Taiwanese and European operations within the case firms and to find which components of MCSs of European operations are affected by local culture.
- To examine the relationships between national culture and financial control factors.
- To explore how the financial control style of the senior managers at headquarters affects the MCS transfer between the Taiwanese and European operations in the case firms.
- To explore the relationships between other situational factors and MCSs of the case firms.

For the purposes of achieving the above objectives, this research uses the comparative case study with a qualitative approach to exploring the relationships of MCS transfer and national culture, financial control factors and other situational factors. Especially, the study strongly emphasises the elements of national culture and leadership factors. Also, four main propositions in the research are established by the first four purposes mentioned above.

Throughout the research extensive quotations from the interviews conducted are used to present MCS descriptions, design rationales, and reactions in the managers' own terms as much as possible. In effect, these quotations serve as direct and powerful evidence of choices the managers have made, the reasoning behind them, and the outcomes (Merchant, 1989: 20).

1.3 Research Scope

The following three limitations have served as the boundaries of the research. First, in the selection of cases and samples, this study chose four Taiwanese MNCs as the case firms. Except for a few interviews with outside people, almost all interviews were conducted within the case firms. The interviewees contain those managers both in operations and at headquarters. The reason for choosing cases and samples will be discussed in detail in chapter 3. Secondly, in the selection of geography, this study chose to compare Taiwanese and European MCSs. The four case firms in the research are global firms and cover broad business geography. Different areas or nations may face different cultural and environmental factors and may have different phenomena in MCS transfer. Owing to the limitation of time and funds, this research concentrates on Taiwan and Europe only. Thirdly, in the selection of variables, most research variables are chosen either from the literature review or even from interview responses, but the research could not cover all relevant variables. It is possible that other variables may have a direct influence on MCS design or transfer. A more detailed discussion about choosing relevant variables will be found in the next chapter.

1.4 Significance of the Research

The exploration of MCS transfer is important for several reasons. First, investigating the relationships between MCS transfer and national culture, financial control factors, and other situational factors can help to discover some variables or elements which are important to the transference of MCSs within MNCs. Secondly, comparative research between Taiwan and Europe will be able to assist our understanding of how to tackle the MCS design in European operations as well as

helping Taiwanese MNCs to learn how to succeed in MCS design in their European operations. Thirdly, because the research collects data from different sources, findings from the research could not only enrich the knowledge of real-world practice but also be useful for theory development. Fourthly, as the research framework can reasonably reflect the extent to which different elements affect the transference of MCS components, each MNC can make the optimum decision for its MCS design according its unique financial control style and situational factors. Fifthly, the findings of the research can assist in building a criterion for evaluating the successful extent of MCS design in European operations. Finally, as the research covers national culture, financial control factors and situational factors simultaneously, it can be classified as an exploratory and pioneering research in the area of MCS transfer.

1.5 Organisation of the Thesis

As figure 1.1 shows, the thesis deals with MCS transfer in the context of three elements: national culture, financial control factors, and other situational factors. These elements will be integrated in a comprehensive framework to show the transference of MCSs in overseas operations.

As shown in figure 1.1, the thesis will be organised as follows. Chapter one will present a review of the research problem. The purposes of the research and research scope will be introduced. In addition, the significance of research will also be discussed. Chapter two will review significant literature about comparative management and MCS transfer or design. Relevant theories will be systematically explored, and elements and variables important to the MCS transfer will be highlighted. With the progress of the review, research propositions will be established on the relevant theories or previous literature. Finally, a research framework will be constructed. Chapter three will develop the methodology employed in the research. Research approaches will be presented and different data collected from different resources with qualitative approaches. In addition, the reliability and validation with data analysis techniques will be discussed in detail.

Chapters four to nine cover the empirical analysis. Chapter four will examine the development of Taiwanese information technology (IT) industry and its investment in Europe. Chapter five will present four IT MNCs that will make up the case studies in the research. Chapter six will compare MCSs with qualitative in-depth interviews through cross-cultural research. Based on Hofstede's cultural dimensions, a series of sub-propositions will be examined. Chapter seven will explore the relationships between financial control factors and national culture. With the

differences in leaders' financial control factors, each case firm owns its managing values and then forms its control style which will affect its MCS transfer. Chapter eight will discuss the relationships between financial control factors and MCS transfer. The dynamic analysis will be observed. As well as an integrated examination, each financial control factor will also be examined separately. Chapter nine will follow contingency theory, and the relationships between situational factors and the transference of MCSs will be examined individually.

Influences on the Cross-cultural Transferability of Management Control Systems

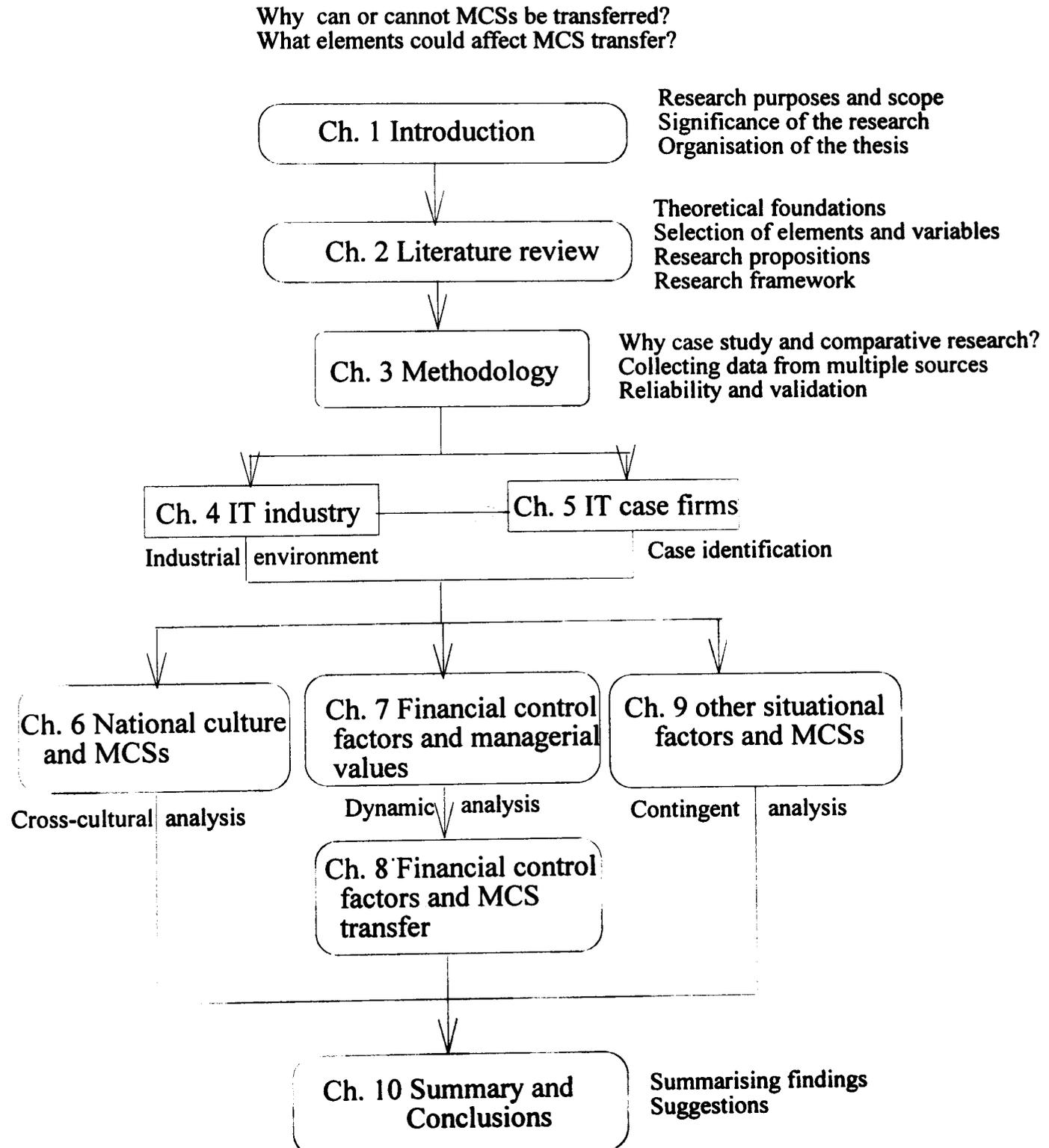


Figure 1.1 Organisation of the Thesis

Chapter ten consists of the summary and conclusions. A brief summary of the research will be presented first. Then the contribution and managerial implications of the research will be discussed. Also, the limitations and future research suggestions will be provided.

Finally, some relevant instruments and data are also presented in appendices, including interview questions (Appendix 1), a list of interviewees (Appendix 2), group organisations of the case firms (Appendix 3), and financial data of the case firms (Appendix 4).

2. Literature Review

- 2.1 Introduction
 - 2.2 Overview of MCS Transfer
 - 2.3 Culture, National Culture, and Corporate Culture
 - 2.4 A Comparison of MCSs between Europe and Taiwan
 - 2.5 Financial Control Factors as Dynamic Variables in MCS Transfer
 - 2.6 Other Situational Contingent Factors and MCS Mechanisms
 - 2.7 A Conceptual Framework of the Research
 - 2.8 Conclusion
-

2.1 Introduction

This chapter explores relevant literature with three main purposes. First, it relates to the ongoing dialogue in the literature about cross-cultural comparisons and MCS transfer. It provides a chronological, historical picture of what has been learned in MCS transfer. Secondly, it provides a strong base for establishing propositions and research purposes. Furthermore, a conceptual research framework could be built. Thirdly, it provides an opportunity to compare relevant literature and to understand the importance of the research. Through literature review, a novel research design and benchmark could be conducted.

The research strategy here focuses on literature reviewing the relationship between "cause and effect." In other words, the research emphasises the relationship between dependent and independent variables. Except for overviewing the relevant literature of MCS transfer, three important independent elements in the research are strongly emphasised. According to the process of literature review, the research has built a series of propositions, the basis of an integrated final framework.

2.2 Overview of MCS Transfer

2.2.1 Comparative Management Model

The comparative management jungle of today is one in which various management orientations share some of the same root systems. This is most apparent with respect to the contingency management orientation, because it is heavily influenced by behavioural research, methodology, and conceptualisation. (Miller, 1984: 80)

2.2.1.1 Environmental (Ecological) Orientation

Comparative management studies did not appear until the 1950s and were not accepted as a distinctive discipline until the 1960s. Following in the steps of some antecedents (such as Roy Blough and Edward T. Hall, see Schollhammer, 1969: 85-86), Farmer and Richman firstly considered culture as an important variable influencing managerial effectiveness in their macro model (Farmer and Richman, 1965: 35; Kelley and Worthley, 1981: 166; Chen 1995: 12). The model identified management as a dependent variable, and it indicated the universality of basic management theory and principles (Koontz, 1969: 428). They attempted to segregate environmental factors from the basics of management (Koontz, 1969: 423). The ecological orientation stressed the importance of external environmental factors, including sociological, educational, legal and political, and economic characteristics, on managers behaviour. The ecological orientation highlights the importance of cultural and national factors and their impact on managerial effectiveness (Schollhammer, 1969: 84-85; Miller, 1984: 70). Individual companies are passive agents of the external environment (Negandhi, 1975: 336). However, it is basically a static model in a dynamic environment and also overemphasises external factors to the complete neglect of internal organisational dynamics (Schollhammer, 1969: 86; Negandhi, 1975: 336; Chen, 1995:13).

2.2.1.2 Behavioural Orientation

In due course, some micro behavioural models were developed (such as Negandhi and Estafen 1965, Haire et al., 1963, Perlmutter 1965, Thorelli 1966, see Schollhammer, 1969: 87-90; Davis 1971, Baret and Bass 1970, see Chen 1995: 13). Behavioural orientation stressed the development and elucidation of human behaviour theory and the test of hypotheses by means of rigorous research design and data analysis (Schollhammer, 1969: 87; Chen, 1995: 14). This school focuses on typical behaviour patterns of managers in different cultures (Schollhammer, 1969: 87; Negandhi, 1975: 336). Culture is used as an independent variable. Topics such as leadership styles, motivation and job attitudes, managerial values, and job satisfaction have been the locus of the behavioural orientation to comparative management conceptualisation and synthesis (Miller, 1984: 71). This school espouses operationalised cultural variables and divides them into different categories, but culture has not been explicitly defined and the differences found have been attributed to culture (Negandhi, 1975: 337; Miller, 1984: 71; Chen, 1995: 14).

2.2.1.3 Contingency Management Orientation

An open system model was developed by Negandhi and Prasad (1971: 23; also see Chen, 1995:15). They conclude that the management process is dependent not only on external environmental constraints and culture but also on management philosophy. The model identifies management philosophy as an independent variable (Koontz, 1969: 425). They argued that if environmental and cultural factors were the main determinants of management practices, the management practices of two comparable business enterprises in the same culture should be similar (Kelley and Worthley, 1981: 166). However, although it includes culture as a variable, the model does not recognise the importance of culture as much as it does managerial philosophy. The research may have truly established the importance of managerial philosophy, but any successful managerial philosophy cannot go against the cultural environment in which a corporation operates (Chen, 1995: 16). Related to the open model, a contingency model was developed by Lawrence and Lorsch in 1969. They argued there is no optimum type of management system, which is advocated by traditional management theory and practice. With many academics participating (such as Child, 1972, 1981; Hickson et al., 1974; Gordon and Miller, 1976; Wooton, 1977; Waterhouse & Tiessen, 1978; Ginzberg, 1980; Maurice et al., 1980; Merchant, 1981, 1985a; Rockness and Shields, 1984; Govindarajan, 1984, 1986, 1988; Govindarajan & Gupta, 1985; Govindarajan & Fisher, 1990; Gresov, 1989; Fisher & Govindarajan, 1993; Simons 1987, 1990; Dent, 1990, Shields and Young, 1993; Wong and Birnbaum-More, 1994; Punnett and Shenkar, 1994; Fisher, 1994, 1995), contingency theory has become one of the dominant paradigms for research into management control design (Wooton, 1977; Dent, 1991; Fisher, 1994, 1995). Contingency management orientation highlights an active interrelationship between environmental factors or situations and the manager's response to them (Miller, 1984: 75). However, the definition of the manager's role and the operationalisation of environmental variables still challenge contingency management scholars (Negandhi, 1975: 339).

2.2.1.4 Behavioural Orientation: Cultural Emphasis

Before 1980, there was a large amount of cultural research orientated towards contingency theory, which, however, relegated culture to a residual variable, that is to say, that which is unexplained by the more common contingency variables (Sorge and Warner, 1986: 7). Rohner (1984: 111) described it as "a packaged, unexamined variable." Culture was regarded theoretically as just as another contingency, or as an independent variable (Smircich, 1983: 343). Differences were explained in terms of cultural variables and the cultural factors were considered the most important

influence variables (Negandhi, 1975: 335). Pondy and Mitroff (1979) developed a "cultural model", which would be concerned with the higher mental functions of human behaviour, such as language and creation of meaning, to advocate organisation theory (Smircich, 1983: 353-354; Cyert and March, 1992: 214-215). In 1980, Hofstede published his influential study of cross-cultural differences in work-related values and identified four cultural dimensions: individualism, power distance, uncertainty avoidance, and masculinity. Culture was not a "black box" any more: more and more culturalists devoted themselves to cultural studies. For the past decade, many researchers have generated a large amount of literature to validate the constructs and to test various implications of the theory (such as Hofstede & Bond, 1984; Hui and Triandis, 1986; Harrison and McKinnon, 1986; Leung and Iwawaki, 1988; Birnberg and Snodgrass, 1988; Dorfman and Howell, 1988; Triandis, 1989; Hui and Villareal, 1989; Moore and IsHak, 1989; Hui, 1990; Punnett and Withane, 1990; Ueno and Sekaran, 1992; Cohen et al., 1992; Harrison, 1993; Wong and Birnbaum-More, 1994; Chow, Shields & Wu, 1994; Bochner, 1994; Bochner and Hesketh, 1994; O'Connor, 1995; Lau et al., 1995; Smith et al., 1996; Chow, Shields & Wu, 1996). Also, Hofstede's work is illustrated by the citations, reviews or as a paradigm (Søndergaard, 1994). Many behaviourally-oriented researchers have been initiated to identify similarities and differences in managerial phenomena across cultures. The cultural model seems to have become mainstream in cross-cultural comparison in the past decade.

2.2.2 Cross-Cultural Comparison of Management Control Systems

Over the past two decades, many researchers have devoted themselves to the cross-cultural comparison of management control systems. The cross-cultural analysis is based solely on the positioning effect¹ of culture (Leung and Bond, 1989: 141) and a strong etic² dimension would emerge from it (Leung and Bond, 1989: 147). Most of them used the comparison between nations or areas, especially Pacific-rim countries or areas, such as between USA and Japan (Daley et al., 1985; Lincoln et al., 1986; Snodgrass & Grant, 1986; Birnberg & Snodgrass, 1988; Snodgrass and Szewczak,

¹ The term "positioning effect" is on the relative location of the responses made by the average individual from a particular culture, whilst the term "patterning effect" can be detected with a set of intracultural analyses. A pancultural analysis can reflect both the patterning effect and positioning effect, but the cross-cultural analysis is based solely on the positioning effect of culture (Leung and Bond, 1989: 140-141).

² Kenneth Pike formed the words "etic" and "emic" from the suffixes of the words phonetic and phonemic (Harris, 1979: 34). Theories developed by social scientists observing behaviour are referred to as "etic," whereas those held by participants are called "emic." The value of emic research is based on the identification of categories and rules actually held by participants and used to guide thinking and action. Further detail is given in chapter 3.

1991; Ueno & Sekaran, 1992; Ueno & Wu, 1993; Chow, Kato & Shields, 1994; Chow, Kato & Merchant, 1996), between Singapore and USA (Chow et al., 1991), between Japan and Korea (Lie, 1990), between Britain and Germany (Sorge and Warner, 1986), between Singapore and Australia (Harrison, 1992, 1993), between Europe and America (Ayman and Chemers, 1983), between China and Taiwan (Fuller and Peterson, 1992), between South Korea and Taiwan (Li, 1993), between the United States and India (Agarwal, 1993), between Taiwan and the United States (Merchant et al., 1995) and between two areas (such as Meindl et al., 1989 Sino-American; Vance et al., 1992, Thailand/Indonesia/Malaysia vs. USA; Harrison et al., 1994, USA/Australia vs. Singapore/Hong Kong). In addition, a few researchers built their cross-cultural research on the level of multi-countries (such as McMillan et al., 1973 for the United States, Canada, and Britain; Maurice et al., 1980 for France, West Germany, and Britain; Chinese Cultural Connection, 1987 for 22 countries; Ali, 1988 for five Arabic countries; Coates et al., 1992 for Britain, Germany and the United States; Pratt et al., 1993 for the United States, Britain, and Holland; Chow, Shields & Wu, 1996 for Taiwan, Japan, and the United States; Smith et al., 1996 for 43 countries). It appears that countries can be clustered according to similarities in certain cultural dimensions (Ronen and Shenkar, 1985: 452). Among them, except for some researchers who used different cultural dimensions or attributes (such as Maurice et al., 1980; Lincoln et al., 1981; Lincoln et al., 1986; Snodgrass & Grant, 1986; and Birnberg & Snodgrass, 1988; Ali, 1988; Coates et al., 1992; Li, 1993; Agarwal, 1993), most researchers selected the theoretical taxonomy developed by Hofstede (1980/1984, 1991), especially after 1989 (Harrison and McKinnon, 1996: 48-50). In addition, except for a few researchers who used in-depth interviews (such as Coates et al., 1992; Merchant et al., 1995), almost all researchers selected the survey questionnaire as the main instrument of quantitative analysis. The effect of national culture was tested by comparing MCSs between nations or areas which have obviously different national cultures. While some support has been found for the predicted effects, the results of many of these tests have been either nonsignificant, or significant but either the sign of mean difference or the form of the detected interaction is opposite to the prediction (Chow et al. 1996: 2). According to the analysis of Harrison and McKinnon (1996, 51-53), the planning process and evaluating process seem easily predictable by Hofstede's cultural dimensions rather than the organisation process and rewarding process. Past empirical research still could not get any predicted effect from the test of the rewarding process of MCSs (such as Chow et al., 1991; Vance et al., 1992; Chow, Kato & Shields, 1994; Merchant et al., 1995).

There are many factors to cause these mixed or reversible results. An important cause of these mixed results may be inadequacy or ineffectiveness of contingent variables, like size and industry (Child, 1981: 305; Chow, Shields & Wu, 1996: 2). If some contingent variables were suitably controlled by researchers, the reliability of the research results would be naturally increased. Control mechanisms were selected from different levels, including corporate control, formal control, and even operational control (Fisher, 1995: 25), and some of those are influenced by a wide variety of contingent variables. Another reason is that some authors had made different interpretations and potentially inconsistent applications of Hofstede's cultural dimensions (Smith, 1992: 41; Chow, Shields & Wu, 1996: 6). Cultural differences and their implications for organisations have been studied by many researchers, but how that culture has been treated as a variable central to the study differs quite considerably (Tayeb, 1994: 433). There is a dearth of theoretical research in which a systematic study of culture, work attitudes, and management system is carried out in independent stages to examine the consistency between culture and management (Child, 1981: 305; Adler, 1983: 231; Tayeb, 1994: 435). Limited by funds, time, difficulty in accessing samples and complex methodology, it is frequently impossible to pursue cross-cultural studies with the rigour usually required of within-cultural studies (Triandis, 1972; Adler, 1983: 231; Ronen and Shenkar, 1985: 453; Hofstede, 1980). In addition, the definition of "culture" and the "aspect" of management control systems of research methodology could also significantly affect data collection and interpretation (Tayeb, 1994: 439-442).

2.2.3 Approaches to Examine MCS Transfer within a MNC

As described above, many culturalists used cross-cultural comparisons between countries or areas to indicate indirectly the possibility of the transference of management control systems. In addition, for overcoming the problem of cross-border data collection and/or language problems, some scholars acutely compared cross-cultural differences within one country only (such as Lincoln et al., 1978 in USA; Lincoln et al. 1981 in USA; Soeters and Schreuder, 1988 in Holland; Frucot & Shearon, 1991 in Mexico; Pratt et al., 1993 in Holland and Britain; Wong and Birnbaum-More, 1994; Chow, Shields & Wu, 1994 in Taiwan; Lau et al., 1995 in Singapore; O'Connor, 1995 in Singapore; Chow, Shields & Wu, 1996 in Taiwan). Among them, Chow et al. (1994, 1996) even compared the Japanese and U.S. firms in Taiwan. Their findings, including similarities and differences, could indirectly offer references in respect of MCS design to multinational corporations. Culturalists assume that if culture is important to the design of MCSs, then the control

mechanisms used in different countries will differ from one another. As mentioned above, some scholarly experiments showed that it is possible to transfer specific management controls. Those indirect research studies, however, were only nation-specific, lacking any company-specific content.

Hofstede (1980, 1984) carried out his large survey, covering 53 countries, within the IBM corporation. This approach attempted to reflect directly different national cultures within a multinational firm. Through controlling for industrial and organisational climate variables, national differences in work values could be found (Ronen and Shenkar, 1985: 453). As a result, four national cultural dimensions were found under the same environment of corporate culture. However, Hofstede did not empirically investigate the relationships between the four dimensions of work-related values and attitudes and the structures of the organisations whose managers participated in the study (Tayeb, 1994: 434). Culture has thus been treated as a residual factor which is presumed to account for national variations that have neither been postulated before the research nor explained after its completion (Child, 1981: 306). In addition, through controlling for corporate culture, his national cultural theory was also built upon the nation-specific level. All units studied shared the same IBM corporate culture, and there were no outside points of comparison (Hofstede, 1990: 289). It is still a mystery for a specific multinational firm to understand the transferability of its MCSs.

Multinational corporations are increasingly interested in promoting corporate culture to improve control, co-ordination, and integration of their subsidiaries (Schneider, 1988). As Negandhi and Prasad (1971) proposed, management philosophy is a very important element in multinational management. In addition, multinationals, when going abroad, have to impose universal accounting rules for consolidation purposes. Many leaders attempt to decrease or eliminate cultural differences through human resource management. Cunningham (1978) argued that multinational corporations can be viewed as living social systems because they show obvious tendencies toward purposeful behaviour, adaptation, evolution, self preservation, and self-perpetuation, even though their component subsystems may die or change. Soeters and Schreuder (1988) found two of Hofstede's four cultural dimensions (also see Schreuder, 1987), i.e. uncertainty avoidance and masculinity, having significant effects in respect of the U.S. culture upon the organisational cultures of the Big Eight firms. Hofstede and his colleagues (Hofstede et al., 1990: 312) also found considerable differences in practice for people who held similar values (also see Tayeb, 1994: 436; Pratt, 1993: 627). A great deal of research showed the close relationship between MCS design in a multinational corporation and its leaders. In a multinational corporation, managers are increasingly interested in knowledge about

whether a control system can be transferred from one country to another. Obviously, nation-specific and company-specific comparative research is very important to understand directly the transferability of MCSs within a multinational corporation. However, research needs to face the challenge not only from national cultures but from the leadership and situational contingent variables. Designers of MCSs in multinational firms need to consider not only location-related variables, technology and uncertainty (as proxied by industry), organisational size, and other variables present which differ between firms with the same national ownership, but also the variables including organisational culture, competition and competitive strategy (Coates et al., 1992; Chow, Shields & Wu, 1996).

2.3 Culture, National Culture, and Corporate Culture

2.3.1 Definition of Culture

Culture is defined as "the distinctive way of life of a group of people, their complete design for living" (Kluckhohn, 1951). People having different living circumstances have their differences in the value orientation of individuals. Parson and Shils (1950) proposed the universalism and particularism value orientation³. In any given social situation, where an individual has to choose between particularism or universalism, his choice will be guided by his cultural background (Jaggi, 1975: 78).

Rokeach (1973) developed his Rokeach Value Survey (RVS) in order to measure the relative importance that respondents consciously attach to 36 values, divided into 18 "terminal" and 18 "instrumental" values. His instrument was designed and tested only in the U.S.; in other words, the RVS was not designed as an instrument for cross-cultural research (Hofstede and Bond, 1984). Although it belongs to the emic research, his culture value analysis caused some scholars to become interested in comparing studies with other cultural dimensions (such as Hofstede and Bond, 1984; Bond, 1988).

Hofstede defined culture as a "collective programming of the mind which distinguishes the members of one human group from another" (Hofstede 1980/1984: 25; 1991: 5). Based on his cultural definition, four national cultural dimensions were proposed. Societal or national culture is shared among the group within a society and across social systems within a given society (Hofstede 1980/1984: 15). Culture is a set of historical values and attitudes and meanings shared by the members of a given community that influences their material and non-material way of life (Tayeb, 1988:

³ Universalism is defined as a value orientation toward institutionalised obligations to society, and particularism is a value orientation toward institutionalised obligations of friendship (Zurcher, Jr. et al., 1965, see Jaggi, 1975: 78).

42). Culture is a pattern of basic assumptions - invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration (Schein, 1991: 9). Culture, in this sense, is a learned product of group experience and is, therefore, to be found only where there is a definable group with a significant history. Culture influences (1) the norms and values of such systems; and (2) the behaviour of groups in their interactions within and across systems (Harrison and McKinnon, 1986). In 1987 the Centre of Asian Studies in Hong Kong proposed a survey of Chinese values constructed and administered to university students in 22 countries around the world. In their analyses, four factors were correlated with those derived from a Western survey of work-related values by Hofstede. Three of the factors from the survey correlated at high levels with three of Hofstede's four factors, but the factor of Confucian work dynamism which correlated 0.70 with economic growth from 1965 to 1984 was unrelated to any of Hofstede's values (Chinese Values Survey, 1987). Because the factor of Confucian work dynamism has a significant relation with economic growth, it has caused many scholars to study this aspect (Hofstede and Bond, 1988; Bond, 1988; Franke et al., 1991).

Comparative researchers disagree on how to define culture (Richman, 1977: 15; Smircich, 1983: 339-342; Miller, 1984: 74; Alder, 1984: 49; Moore, 1990: 4-6; AAA, 1991: 182-183; Tayeb, 1994: 430; Gray, 1995: 274). To some "culture-specific" (Tayeb, 1994: 438) researchers, culture related to norms, values, feelings, thinking, roles, behaviour, beliefs, attitudes, expectations, meanings, and so on. It is quite impossible to locate culture in a particular subjective area, and it seemed to be "here, there, everywhere" (Sorge and Warner, 1986: 33). Cultural realists assign culture an independent existence in its own ontological realm, whilst cultural nominalists hold that culture exists solely as a set of inferences or abstractions made by the investigator and drawn from regularities observed in the behaviour of multiple individuals within a population (Rohner, 1984: 115-116). Smircich (1983: 347) described "culture as a root metaphor." To "culture-free" others (such as Hickson et al, 1974; Maurice et al., 1980; Sorge and Warner, 1986), culture is defined as having nothing to do with economics, politics, law, religion, language, education, technology, industrial environment, society, or the market, etc. The relationship between organisational characteristics and their contextual variables is stable across societies. "Culture" resists operational definition, not because it is a particularly intractable area of human affairs, but because the idea is tied to a particular context (Tayeb, 1994: 431). The appearance of culture "nowhere and everywhere" was seen to make it unsuitable for the demarcation of a distinguishable range of explanatory variables (Sorge and Warner, 1986: 40). Culture concerns the selection and social definition of all manner of variables and their dimensions, rather than one set of variables only (Sorge and

Warner, 1986: 35). Even with simple behaviour it is rare that a single independent variable is sufficient for explanation, so where more complex behaviour is involved it is a chance to account for the segmentary process in terms of one or more independent variables (Jahoda, 1984: 148).

2.3.2 National Cultural Dimensions

This study contains Hofstede's four cultural dimensions and Confucian work dynamism, which is called a fifth dimension by Hofstede (1991: 164), as the national cultural dimensions:

2.3.2.1 Individualism/Collectivism

This refers to the relationship one perceives between one's self and the group of which one is a member (Ueno and Sekaran, 1992: 661). Individualism pertains to societies in which the ties between individuals are loose: everyone is expected to look after himself or herself and his or her immediate family. Collectivism as its opposite pertains to societies in which people from birth onwards are integrated into strong, cohesive in-groups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty (Hofstede, 1980/1984: 213, 1991: 51; Hofstede and Bond, 1988: 11; Triandis, 1989: 509). Members of individualistic societies, having an "I" rather than "we", are more self-centred and competitive, pursuing their own goals. They show low loyalty to the organisations they work for and low need for dependency upon others. More collectivist societies, on the other hand, call for greater emotional dependence of members on their organisations; in a society in equilibrium, the organisations should in return assume a broad responsibility from their members (Hofstede, 1980/1984: 217). Members of collectivistic societies have high loyalty for the organisation working toward its goals, interact with one another in an interdependent mode, and take action jointly as a group in a co-operative fashion rather than on an individual competitive basis, thus subscribing to the moralistic values of joint efforts and group rewards (Ueno and Sekaran, 1992: 661).

The relationship between the individual and collectivity in human societies is not only a matter of ways of living together, but it is intimately linked with societal norms (Hofstede, 1980/1984: 214). For an individualist, the relationship between employer and employee is a contract supposed to be based on mutual advantage; in contrast, a collectivist perceives the relationship in moral terms, like a family link. The level of individualism/collectivism in society will also affect what type of persons will be admitted into positions of special influence in organisations (Hofstede, 1980/1984: 218). The hiring process in a collectivist society always takes the in-group

into account. Usually preference is given to hiring relatives, first of all of the employer, but also of other persons already employed by the company (Hofstede, 1991: 64). The distinction between in-group and out-groups which is so essential in the collectivist culture pattern has far-reaching consequences for business relationships, beyond those between employers and employees (Triandis, 1989: 509-510; Hofstede, 1991: 66). Management in an individualist society is management of individuals. Subordinates can usually be moved around the individual; if incentives or bonuses are given, these should be linked to an individual's performance. Management in a collectivist society is management of groups. The extent to which people actually feel emotionally integrated into a work group may differ from one situation to another (Hofstede, 1991: 65).

2.3.2.2 Power Distance

Power distance relates to how power is distributed among organisational members at various hierarchical levels in different societies. Power distance can be defined as the extent to which the less powerful members of institutions and organisations within a country expect and accept that power is distributed unequally (Hofstede and Bond, 1988: 10; Hofstede, 1991: 28). It affects the feasibility of socio-technical interventions (Hofstede, 1984: 395) and has a close relationship with the dimension of collectivism (Hofstede, 1980/1984; Smith et al., 1996). Within organisations as units of society, we inevitably find inequality of members' abilities and inequality of power (Hofstede, 1980/1984: 96). In most utilitarian organisations, the distribution of power is formalised in a hierarchy. The basic element from which hierarchical pyramids are built is the relationship between a boss and a subordinate (Hofstede, 1991: 97, 99). In the large power distance situation superiors and subordinates consider one another as existentially unequal; the hierarchical system is felt to be based on this existential inequality. Organisations centralise power as much as possible in a few hands (Hofstede, 1984: 395). There are a lot of supervisory personnel, structured into tall hierarchies of people reporting to each other. Subordinates are expected to be told what to do (Hofstede, 1991: 35). In the small power distance situation subordinates and superiors consider one another as existentially equal; the hierarchical system is just an inequality of roles, established for convenience; and roles may be changed, so that someone who today is my subordinate may tomorrow be my boss. Organisations are fairly decentralised with flat hierarchical pyramids and limited numbers of supervisory personnel. Subordinates expect to be consulted before a decision is made that affects their work, but they accept that the boss is the one who finally decides (Hofstede, 1991: 36).

2.3.2.3 Uncertainty Avoidance

Uncertainty avoidance is defined as the extent to which the members of a culture feel threatened by uncertain or unknown situations (Hofstede, 1991: 263). It denotes the extent to which members of a society are able to cope with the uncertainty of the future without experiencing undue stress (Ueno and Sekaran, 1992: 661). Cyert and March (1963/1992: 121) use the expression "uncertainty avoidance", and they say: "The firm looks for procedures that minimise the need for predicting uncertain future events. One method uses short-run feedback as a trigger to action, another accepts (and enforces) standardised decision rules." In uncertainty avoiding societies there are many formal laws and/or informal rules controlling the rights and duties of employers and employees. There are also many internal rules and regulations controlling the work process (Hofstede, 1991: 120). They try to minimise the possibility of unstructured situations⁴ by adhering to strict laws and rules, safety and security measures, and (on the philosophical and religious level) a belief in absolute Truth: "There can be only one Truth, and we have it." (Hofstede and Bond, 1988: 11). Organisational members who have a predisposition for strong uncertainty avoidance try to engage in activities such as long-range planning and creating protective structures around them, which they expect will allay the anxiety of facing the unforeseen future (Ueno and Sekaran, 1992: 661-2). Uncertainty-avoiding rituals, including memos and reports, certain parts of the accounting system, a part of planning systems and control systems, in organisations do not make the future more predictable, but they relieve some of the stress of uncertainty by creating a pseudo-certainty within which organisation members can continue functioning (Hofstede, 1980/1984: 159-160). Sometimes, their laws and rules are even clearly nonsensical, inconsistent, or dysfunctional (Hofstede, 1991: 121). In countries with very weak uncertainty avoidance there rather seems to be an emotional horror of formal rules. People are more tolerant of behaviour and opinions that differ from their own; they try to have as few rules as possible, and on the philosophical and religious level they are relativist, allowing many currents to flow side by side (Hofstede and Bond, 1988: 11). Rules are only established in case of absolute necessary. People in such societies pride themselves that many problems can be solved without formal rules (Hofstede, 1991: 121).

2.3.2.4 Masculinity/Femininity

This refers to a culture group's dominant values in regard to the job. Masculinity pertains to societies in which social gender roles are clearly distinct (i.e.,

⁴ Unstructured situations are defined as novel, unknown, surprising, or different from the usual.

men are supposed to be assertive, tough, and focused on material success whereas women are supposed to be more modest, tender, and concerned with the quality of life); femininity pertains to societies in which social gender roles overlap (i.e., both men and women are supposed to be modest, tender, and concerned with the quality of life) (Hofstede 1991: 82-83).

According to Chinese Yin-Yang theory, which receives some affirmation from both modern physics and analytical psychology, there are two overall principles, the masculine and the feminine, inherent in all phenomena and responsible, by their interaction, for the emergence and dissolution of all things. The masculine principle provides people with a way of understanding the world instead of being enslaved by it, of directing and planning their own lives instead of being unwitting participants in nature's designs. It also offers them the chance of discovering their own individuality instead of being compelled by the collective impulses of the group (Lessem, 1989: 63). The feminine is, in fact, a bridging influence. It bridges the individual and the external worlds, one department and another, the conscious and subconscious minds, corporate strategy and corporate culture. In this capacity it acts as an agent of renewal and transformation. (Lessem, 1989: 64). Yin and Yang describe a world in which people and things, structures and processes, make up different expressions of a continuum, rather than irreconcilable opposites (Lessem, 1989: 61). What appear logically as opposites are actually the same in reality (Sarachek, 1990: 151). Whereas the masculine principle promotes a subject-object relationship, the feminine principle encourages an experience of unity between subject and object (Lessem, 1989: 64). They are like the two sides of our brain. The left side of the brain, represented by the right hand, is the "masculine" and aggressive side that wants to control, to determine what is, to decide what is right. The right side, represented by the left hand, is the "feminine" and sensitive side that wants to respond, to adapt to what is, and to recognise what is right (Lessem, 1989: 67).

In more masculine cultures, men dominate the society, people consider big as beautiful and they have a need to perform and show off (Ueno and Sekaran, 1992: 62). The masculine manager is, of course, assertive, decisive, and aggressive. He stresses equity, competition among colleagues, and performance. People tend to show a more sceptical view of others, which is demonstrated by their lesser rejection of Theory X (Hofstede, 1980/1984: 284-294; 1991: 94-96). On the contrary, in more feminine culture, the dominant values are for members to play more androgynous roles, consider small as beautiful, and care for the quality of life and the environment rather than for money (Ueno and Skaran, 1992: 62). The women have the same neutralising values as the men. The manager in a feminine culture is less visible, intuitive rather than decisive, and accustomed to seeking consensus. He stresses equality, solidarity,

and quality of work life. Theory X is strongly rejected by such people (Hofstede, 1980/1984: 284-294; 1991: 94-96).

2.3.2.5 Confucian Work Dynamism

According to Chinese Cultural Connection (1987: 150), there are four factors in Chinese culture: integration, Confucian work dynamism, human-heartedness and moral discipline. With the exception of Confucian work dynamism, these correlate with Hofstede's cultural dimensions. The dimension of Confucian work dynamism is identified as polarising societies on a set of values derived from the teaching of Confucius in China. It comprises eight values: ordering relationships by status and observing this order, thrift, persistence, having a sense of shame, reciprocation for greetings, favours, and gifts, personal steadiness and stability, protecting one's "face", and respect for tradition. Hofstede (1991: 165-166) regards the former four values as the pole of "long-term orientation" and the latter four values as the pole of "short-term orientation." The values on the pole of long-term orientation are more oriented towards the future (especially perseverance and thrift); they are more dynamic. The values on the opposite pole are more oriented towards the past and present; they are more static (Hofstede, 1991: 166). Societies which regard the first four as relatively important tend to regard the second four as relatively unimportant, and vice-versa (Harrison et al., 1994: 247). Compared to the values of long-term orientation, the values of short-term orientation are low endorsement to facilitate economic growth (Hofstede and Bond, 1988: 18). Hofstede and Bond said those countries which ranked high within 22 nations on this dimension reflected "a dynamic future-oriented mentality" (Hofstede and Bond, 1988: 12-13). That is, the values of the long-term are more important to those countries.

Confucianism is a collectively oriented philosophy which presents a hierarchical view of the social order (Fuller and Peterson, 1992: 186; Chow et al., 1995: 37). The shared value of "ordering relationships by status and observing this order" is quintessential Confucianism in action. Chinese culture has a high regard for hierarchy in which everyone has his/her assigned place, and in which individuals in superior positions are accorded a wide range of prerogatives and authority over those below them (Bond and Hwang, 1986; King and Bond, 1985; Merchant et al., 1995). The essence of Confucianism lies in the family system (Chow et al., 1995: 37). Children are taught to keep filial piety to their parents and family members are assigned proper hierarchical order according to age and generation. The leader of the family owns supreme power with full control over all decisions relevant to family members. This family culture forms the foundation for loyalty and obedience to the superior and ruler. The stability of society is based on unequal relationships between

people (Hofstede, 1991: 40). Hierarchical dualities and interrelatedness lie at the heart of the Chinese conception of being human (the "wu lun"⁵). This sense of hierarchy and complementarity of relations undoubtedly makes the entrepreneurial role easier to play (Hofstede and Bond, 1988: 18; Hofstede, 1991: 168-169). The senior managers at headquarters and their subordinates have ordering relationships in their mind, that is, senior managers have a powerful degree of control and they select important managers from their in-group by order. The value of having a "sense of shame" supports interrelatedness through sensitivity to social contracts and a stress on keeping one's commitments (Hofstede and Bond, 1988: 18; Hofstede, 1991: 169). It has a significant effect on budget evaluative style and the reward system. The value of thrift leads to savings and availability of capital for reinvestment. Persistence, tenacity in the pursuit of whatever goals, is an essential asset for a beginning entrepreneur (Hofstede, 1991: 168-9). The values of "thrift" and "persistence" have deep relationships with economic growth and long-term objectives. However, Yeh and Lawrence (1995: 656) remarked that Hofstede used two dimensions of culture (individualism and Confucian dynamism) as independents and that culture is not a sufficient condition to explain economic growth (also reference to The World Bank, 1993: 79-81).

2.3.3 National Culture and Corporate Culture

Corporate culture is sometimes called organisational culture. Because it is not easy to define organisations in time and space (Schein, 1991: 7), corporate culture may be used in preference to organisational culture but they are still interchangeable in this research..

Corporate culture typically is defined as a complex set of values, beliefs, assumptions, and symbols that define the way in which a firm conducts its business (Barney, 1986: 657; Reimann, 1987: 168). Corporate culture also can be defined as the collective programming of the mind which distinguishes the members of one corporate body from another (Hofstede, 1987: 1, 1991: 180). Culture is patterned, potent, and deeply embedded in people's thoughts, perceptions, and feelings. It provides an integrated perspective and meaning to situations; it gives group members a historical perspective and view of their identity (Greenley, 1989: 204-205; Schein, 1991: 44; Kotter, 1992: 6-7). Managers and others throughout the organisation pay extraordinary attention to whatever matters are stressed in the corporate value system (Deal and Allen, 1982: 33). Flamholtz (1983: 158, 168) argued for an organisation's

⁵ Wu lun means five basic relationships: ruler-subject, father-son, old brother-younger brother, husband-wife, and senior friend-junior friend. These relationships contain mutual and complementary obligations: the junior partner owes the senior respect and obedience; the senior owes the junior partner protection and consideration (Hofstede, 1991: 40).

culture as a mechanism of control (also see Ray, 1986: 294-295). Differing cultures of organisations interpret or structure the problems in different ways, and a cultural feature that is an asset for one purpose is unavoidably a liability for another (Hofstede et al., 1990: 314). A strong culture enables people to feel better about what they do, so they are more likely to work harder (Deal and Kennedy, 1982: 16). Culture can be divided into three levels: artefacts which comprise the most visible level, values which reflect people's sense of what "ought" to be as distinct from what is, and basic underlying assumptions which come to be taken for granted when a solution to a problem works repeatedly (Schein, 1991: 14-8). National cultures reside mainly in deeply-rooted values, while organisational cultures are a more superficial phenomenon (Hofstede et al., 1987: 9, 1990: 312, 1991: 182; Smith, 1992: 45-48; Hodgetts, 1993: 56). Organisational cultures are mainly expressed not in members' values but in more superficial manifestations like common symbols, heroes, and rituals (Hofstede, 1991: 236). At the national level, cultural differences reside mostly in values, less in practices; at the corporate level, cultural differences reside mostly in practices, less in values (see Figure 2.1):

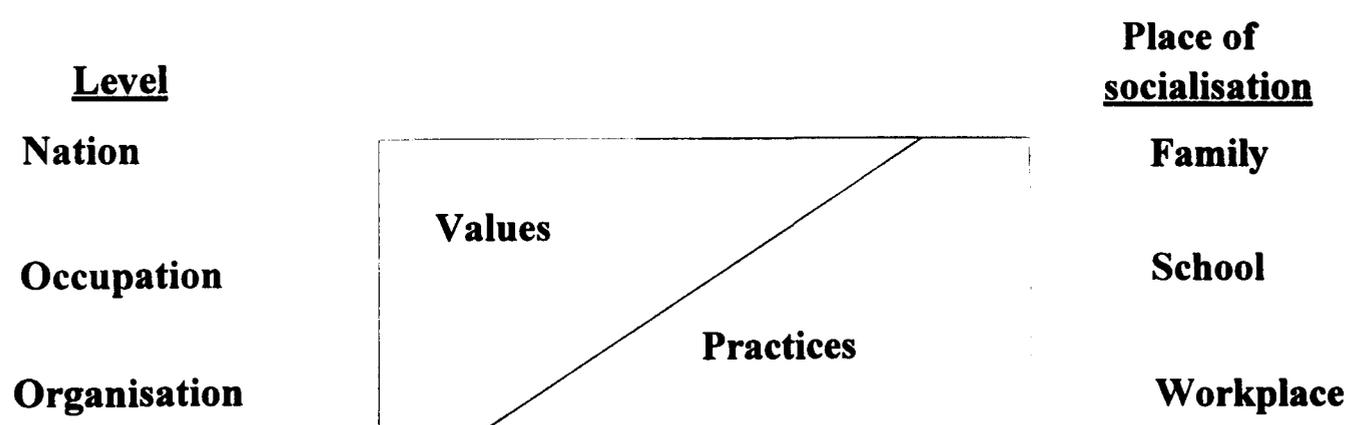


Figure 2.1 The Nature of Cultural Differences

Data sources: Hofstede, 1991: 182

The values of founders and key leaders undoubtedly shape organisational cultures, but the way these cultures affect ordinary members is through shared practices. Founders-leaders' values become members' practices (Hofstede, 1991: 183). The national cultural impact on organisations is profound and affects both business and government (Hofstede, 1991: 236). The attitude towards strong organisational cultures is partly affected by the national culture element (Hofstede, 1991: 180). Organisational cultures reflect nationality, demographics of employees and managers, industry and market; they are related to organisational structure and control systems, but all of these leave room for unique and idiosyncratic elements (Hofstede, et al..

1990: 306, 313).

In recent decades, some multinational companies' managers believe that a firm which has a valuable, rare, and imperfectly imitable culture enjoys a sustained competitive advantage that reflects that culture (Barney, 1986: 659). Yet these subsidiaries are embedded in local national cultures wherein the underlying basic assumptions about people and the world may differ from those of the national and corporate culture of the multinational (Schneider, 1988). According to Hofstede (1980/1984), when faced with cultural diversity among home cultures a viable new organisation can only be created through the development of a strong organisational subculture or common entity (also see Olie, 1994: 386). Negotiations between the intergroup elements become even more complex because intergroup issues get combined with issues of national cultural differences (Schein 1991: 40). Rentsch (1990) argues that shared interpretations and understanding of organisational events are a component of most definitions of culture. Corporate culture, rather than national culture, seems most relevant to management issues that focus upon organisational tasks and technologies; where management issues pertain to an organisation's relationship to its environment, broader national cultures become more relevant (Robey and Rodriguez-Diaz, 1989). Actually, the management in a multinational firm will be a function of both the national culture and the corporate culture (Schein, 1991: 40).

The question is how to identify the corporate culture and national culture in cross-cultural research. Cultural differences among national subsidiaries easily lead to conflicts over corporate policies. Such conflicts arise not only between headquarters and local managers in the subsidiaries, but also between headquarters and expatriates from the home country nationality (Hofstede and Bond, 1988: 20). Theoretically, it is very difficult to make a demarcation between national culture and corporate culture. In pragmatic experiments, however, scholars attempted to control one of them to get their research results. As mentioned above, most cross-cultural researchers used aggregate samples as a means of controlling for corporate culture to observe the similarities and differences between different nations or areas. Some researchers (such as Hofstede, 1980/1984; Boyacigiller, 1990) explored different national cultural dimensions also by controlling under a single corporate culture. Conversely, if companies were compared within a same nation or area (such as Hofstede et al., 1990; Pratt et al., 1993), the characteristic of different corporate cultures would be observed more easily.

2.3.4 Taiwanese and European Cultures

According to Hofstede's (1991) five dimensions of national culture, Taiwan and west European countries have important cultural differences (see Table 2.1). Because of great differences in power distance, individualism, and Confucian dynamism between European countries and Taiwan, it is possible to assume that their systems show some differences.

As this study covered Britain, Germany, and Holland in Europe, these three countries could be aggregated for the purposes of comparison with Taiwan. Integratedly speaking, as the parts in grey in Table 2.1 show, the three European countries are high in individualism but low in power distance and Confucian dynamism, whilst Taiwan shows low individualism but high power distance and Confucian dynamism. Except when comparing one specific country with another to discuss the dimensions of masculinity and uncertainty avoidance, these three cultural dimensions will be used as directional predictions in the hypotheses. When the directional predictions based on cultural dimensions involve individual conflict, the priority will not be decided in advance (such as Chow, Shields & Wu, 1996: 8), but be solved component by component.

Table 2.1 Scores on Hofstede's Five Dimensions for European Countries and Taiwan

Cultural dimensions	Britain	Germany	Holland	Taiwan	mean
Power distance	35	35	38	58	51
Individualism	89	67	80	17	51
Masculinity	66	66	14	45	51
Uncertainty avoidance	35	65	53	69	64
Confucian dynamism	25	31	44	87	46

Source: Summarised from Hofstede's (1988) "The Confucius Connection: From Cultural Roots to Economic Growth", p.12-13.

This study will compare the case firms' management control systems of Taiwanese and European operations through the qualitative analysis of in-depth interview with managers. If there are differences between managers' interviews, a deeper probing will be held to understand their real reasons. The reliability can be strengthened by triangulation with different measurement methods or sources (Chow, Shields & Wu, 1996: 25). As a result, a consistent or reconciled result of each component will be tested with its directional prediction of propositions.

2.4 A Comparison of MCSs between Europe and Taiwan

2.4.1 Management Control System

The management role in control is called "management control" (Anthony et al., 1985: 5), and an organised systematic process and structure that management uses in management control is called a "management control system" (Anthony et al., 1985: 4). From a decisional purpose, a management control system is a means of gathering information to aid and co-ordinate the process of making planning and control decisions throughout the organisation (Horngren et al., 1994: 466); whereas from a controlling purpose, a management control system is a mechanism designed to limit the decision space of individuals within an organisation so as to affect their behaviour (Birnberg and Snodgrass, 1988: 447). The idea of an objective of an instrumental organisation⁶ is an aggregation of individual objectives (Otley & Berry, 1992: 31). Rationality is basically behaviour that strives to achieve organisational goals (Abernethy and Stoelwinder, 1991: 107). A major aim of a management control system is to induce individuals to behave in ways which contribute to overall organisational performance (Emmanuel et al., 1990: 69). MCSs are tools used by management to convey the goals of the organisation, and ensure these goals are pursued by organisational members (Merchant, 1985a; McNair, 1991; Abernethy and Stoelwinder, 1991). Motivation is the desire to attain a selected goal (the goal-congruence aspect) combined with the resulting drive or pursuit toward the goal (the effort aspect) (Horngren et al., 1994: 469). Management control in an organisation is a social process in a social, or maybe socio-technical system (Hofstede, 1978), and control systems are dependent upon power relationships within organisations (Emmanuel et al., 1990: 66).

While some experimental research followed the whole cycle of management control system, including the planning process, organising process, evaluating process, and rewarding process (such as Otley, 1980; Daley et al., 1985, Simons, 1987, 1990; Chow, Kato & Shields, 1994; Chow, Shields & Wu, 1996), most researchers emphasised part of the cycle, such as the planning process (Lincoln et al., 1986; Demirag, 1987; Frucot & Shearon, 1991; Ueno & Sekaran, 1992; Ueno & Wu, 1993; Harrison et al., 1994; O'Connor, 1995), the organising process (McMillan et al., 1973; Child, 1973; Lincoln et al., 1978; Ginzberg, 1980; Maurice et al., 1980; Lincoln et al., 1981; Birnbaum & Wong, 1985; Lincoln et al., 1986; Chow et al., 1991; Agarwal, 1993; Harrison et al., 1994), the evaluating process (Snodgrass & Grant,

⁶ In an instrumental organisation individual goals are neutral towards organisational goals; in a normative organisation there is a wide area of agreement on and commitment to organisational goals (Otley & Berry, 1992: 31).

1986; Birnberg & Snodgrass, 1988; Merchant, 1985a, 1990; Vance et al. 1992; Harrison, 1992, 1993; Ueno & Sekaran, 1992; Ueno & Wu, 1993; Chow, Kato & Merchant, 1996; Hamilton et al., 1996), or the rewarding process (Vance et al, 1992; Snodgrass & Grant, 1986; Merchant et al., 1995). From those experiments, three important phenomena could be found. First, while most of them chose formal mechanisms of management control systems in their research, other researchers covered informal mechanisms (such as Snodgrass & Grant, 1986; Birnberg & Snodgrass, 1988; Snodgrass and Szewczak, 1991; Chow, Kato & Merchant, 1996), general control concepts from top level (such as Simons, 1987, 1990; Hamilton, 1996), or environmental contingent variables (such as Chow, Kato & Shields, 1994). In other words, the scope and definition are not consistent. Control in organisations is inevitably partial and imperfect (Emmanuel, et al., 1992: 3). Another fact is the importance of budget in management control systems. Plenty of experiments (especially such as those of Kenis, 1979; Brownell, 1985; Simons, 1988, 1990; Frucot & Shearon, 1991; Frucot and Shearon, 1991; Abernethy and Stoelwinder, 1991; Ueno and Skaran, 1992; Harrison, 1992, 1993; Shields and Young, 1993; Lau et al., 1995) focused on budget planning and evaluating. Finally, compared to other processes, only a few researchers touched the formal rewarding systems, and almost all of their hypotheses based on national cultural dimensions could not be supported. It seems a valuable topic to explore in depth.

According to the above research and general control theories, this study followed the definition of management control systems. The study chose formal mechanisms only and covered the whole cycle of management control systems. Ten components were selected for comparing and examining, including the planning process (objective setting, participation, long-term and short-term planning), the organisation process (decentralisation, formality), the evaluating process (controllability-filters, feedback extent and frequency) and the rewarding process (contingent reward, group rewards, long-term rewards). Each component will be defined or described further in the next section.

2.4.2 Differences in MCSs between Taiwan and Europe

As Hofstede (1980: 383) says: "Planning represents an attempt to reduce uncertainty; control implies the exercise of power..." As planning and control are two main functions in a management control system, so culture has a close relationship with it. Culture at the national level may be expected to permeate through to organisational subculture, though with varying degrees of integration (Radebaugh & Gray, 1993: 54). Members of different culture groups may react differently to the

same control mechanism designed to achieve the same behaviour. Accounting and management control systems are manifestations of culture and reflect basic cultural assumptions (Hofstede, 1991: 155). Thus, with a polycentric attitude (Radebaugh & Gray, 1993: 32), there is no reason to believe that a single management control system is appropriate for all culture groups (Birnberg and Snodgrass, 1988).

A few researchers (such as Jaggi, 1975; Riahi-Belkaoui and Picur, 1991) indicated the relationship between cultural differences and the development of accounting principles or concepts. Some researchers (such as Saffold III, 1988; Gray, 1980, 1995) improved the traditional framework and developed a culture-performance framework, a more sophisticated understanding of the tie between culture and organisational outcomes. The appreciation of organisations as cultures provides a rich insight into organisational life, and it also invests accounting with symbolic meaning (Dent, 1991: 728). Scholars must combine more appropriate measures of culture's impact with careful attention to intrinsically cultural, performance-related organisational processes. Neimark and Tinker (1986) addressed many of the deficiencies found in the existing literature by incorporating inter-organisational and social systems. Gray (1988) also developed a theory framework of culture, societal values and the accounting sub-culture as a basis of classification of accounting systems (also see Radebaugh & Gray, 1993: 54, 56). Social values existing in different culture areas affect accounting values, and then accounting values impact on the accounting system. A great deal of cross-cultural research as described above has indicated different systems between two specific countries or areas. In addition, some experiments have also proved the relation between culture and performance, such as, in identifying emic theories of individual and group influences on the performance and control process. American workers tend to see groups as reducing poor performance and Japanese workers tend to see groups as enhancing good performance. (Sullivan et al., 1986).

According to the above arguments, if the national culture is a major determinant of the effectiveness of the MCS, the use of components of the MCS does differ between different countries. This expectation leads to the following proposition:

Proposition 1: The use of components of the management control system differs between Taiwanese and European operations.

According to the elements of the management control system, this study develops ten sub-propositions as follows:

2.4.2.1 Planning Process

The process of objective-setting, the budget participation, and the horizontal time span in the planning function are deeply affected by different national cultures.

The process of objective-setting is to measure the extent to which employees at lower hierarchical levels are allowed to have input into the development and selection of the plan for which they will be held responsible for achieving (Birnberg et al., 1990; Shields and Young, 1993; see Chow, Kato & Shields, 1994: 386). There are many reasons to believe Taiwanese operations will employ more top-down planning in their objective-setting. Firstly, organisations centralise power as much as possible in a few hands. Subordinates are expected to be told what to do (Hofstede, 1991: 35). The greater degree of power distance between levels of Taiwanese society leads their people to a greater preference for the top-down planning approach. Secondly, in Chinese society the senior managers and their subordinates have ordered relationships in their mind. The senior managers' wishes are easily followed by their subordinates and their subordinates always show maximum perseverance in pursuing objectives. Thirdly, members of collectivistic societies have high loyalty to the organisation working toward its goals. This leader-centred manner tends to use the top-down planning approach with ease. Therefore, the objective-setting sub-proposition of directional prediction is set as follows:

Proposition 1-1: Taiwanese operations will employ more top-down planning in objective-setting than their European counterparts.

Motivation is more necessary in European operations than in Taiwanese operations. In the individualist society the task is supposed to prevail over any personal relationships and the management is management of individuals (Hofstede, 1991: 67). In contrast, in the collectivist society the personal relationship prevails over the task and the management is management of groups (Hofstede, 1991: 67). Obviously, the individualist society needs more and broader motivation than the collectivist society. Next, Taiwanese society involves greater distance between the all powerful and subordinates than European societies. The hierarchy in organisations reflects the inequality between higher-ups and lower-downs. Centralisation is popular and the ideal boss is a benevolent autocrat or good father (Hofstede, 1991: 37). Compared to decentralised and democratic European societies of smaller power distance, Taiwanese society has less need to communicate than European societies. Finally, because Taiwanese society is more greatly motivated by Confucian work dynamism, subordinates expect to be told what to do. The relationships ordered by status and the observation of this order allow the superior to make decisions quickly after analysing the conditions. There are fewer communications in Taiwanese society

than in European societies. The sub-proposition of participation between two areas is predicted as follows:

Proposition 1-2: Taiwanese operations will be less participative than their European counterparts.

It is expected that such a situation will be accepted by individuals in societies placing low emphasis on individualism with the consequence of a greater preparedness to emphasise long-term planning (Harrison et al., 1994: 251). To obtain long-term benefits, some decisions need to sacrifice short-term performance. A collective and high power distance society such as Taiwan's makes it easier to set long-term planning than European society. In addition, in Confucian work dynamism "persistence" or "perseverance" suggests a general tenacity in the pursuit of whatever goals a person selects for himself or herself, including economic goals (Hofstede and Bond, 1988: 18; Chow et al, 40). This society is very suitable for a long-term planning orientation.

Planning represents an attempt to reduce uncertainty (Hofstede, 1980/1984: 383), It is also reasonable to predict the direction based on the dimension of uncertainty avoidance (such as Ueno and Wu, 1993). Compared to European countries, especially Britain, Taiwanese society has higher uncertainty avoidance, so Taiwanese operations focus more easily on long-term planning than their European counterparts, especially Britain's.

According to the above analysis, the sub-proposition of short-term and long-term planning is defined as follows:

Proposition 1-3: Taiwanese operations will focus more on long-term planning than their European counterparts.

2.4.2.2 Organising Process

Power distance significantly affects organisational decentralisation. The higher power distance of the Taiwanese operations is predicted to produce a higher preference for centralisation because this would be consistent with power differentials in which individuals higher in the hierarchy would direct those below (Chow, Kato & Shields, 1994: 388). Hierarchy in organisations reflects the existential inequality between higher-ups and lower-downs. Subordinates expect to be told what to do, so centralisation is popular (Hofstede, 1991: 37). In contrast, European societies are predicted to prefer decentralisation as a sequence of their lower power distance. Hierarchy in organisations means an inequality of roles, established for convenience. Subordinates expect to be consulted, so decentralisation is popular (Hofstede, 1991: 37). Collectivism also significantly affects centralisation. In collectivist society, the

purpose of education is learning how to do, not how to learn (Hofstede, 1991: 67). The relationship between employer and employee is perceived in moral terms, like a family link (Hofstede, 1991: 67). Compared to Taiwanese society, most of the European countries prefer freedom to equality. Their people pursue "doing one's own thing." In a collectivist culture, what will be actualised is the interest and honour of the in-group which may very well call for self-effacement from many of the in-group members (Hofstede, 1991: 73). It is easier to execute centralisation in a collectivist society than in an individualist society. Because Confucian teaching emphasises that the stability of society is based on unequal relationships between people, the junior partner owes the senior respect and obedience and the senior owes the junior partner protection and consideration (Hofstede and Bond 1988: 8; Hofstede, 1991: 165). A sense of a harmonious and stable hierarchy and complementarity of roles undoubtedly makes the entrepreneurial role easier to play (Hofstede, 1991: 168-169), so the centralised organisation is easily accepted by Chinese society. Therefore, the sub-proposition of decentralisation could be built as follows:

Proposition 1-4: Taiwanese operations will have less decentralisation than their European counterparts.

Formality means more formal rules (e.g. standard operating procedures, policy manuals) to provide guidance on how to operate in uncertain situations (Chow, Kato & Shields, 1994: 388). In countries with very weak uncertainty avoidance there rather seems to be an emotional horror of formal rules. Rules are established only in case of absolute necessity (Hofstede, 1991: 121). In contrast, in uncertainty avoiding societies there are many formal laws and/or informal rules controlling the rights and duties of employers and employees. There are also many internal rules and regulations controlling the work process (Hofstede, 1991: 120). Because Taiwanese society has higher uncertainty avoidance than British society, Taiwan is expected to have a higher preference for greater formality than Britain. However, as Germany and the Netherlands have only a little lower uncertainty avoidance than Taiwan, it seems hard to predict the direction of their cultural dimensions. However, the dimensions of individualism, power distance, and Confucian dynamism could also assist in predicting direction. In a collective society, people easily build their common way of making decisions or solving problems, but in an individualist society the procedures and rules seem more important in leading people to understand. Also, in the society of high power distance and the ordering of Confucian dynamism, people easily follow the orders of their seniors instead of rules, more than those in the society of low power distance.

From the above analysis, the sub-proposition of formality is set as follows:

Proposition 1-5: Taiwanese operations will have less formality than their European counterparts.

2.4.2.3 Evaluating Process

A controllability-filter is intended to eliminate or reduce a person's exposure to the (adverse) effects of uncertainty (Demski, 1976; Merchant, 1989; see Chow, Shields & Wu, 1994: 9). There are many controllability-filters in management practice, such as a flexible budget, responsibility centre and controllable items. Hofstede argues that, in uncertainty avoidance societies, people have an emotional need for rules, even if these will never work (Hofstede, 1991: 125). Uncertainty avoidance is positively related to the preference for being insulated from uncertainty and its effects (Chow et al., 1995: 9). From this point of view, Taiwanese operations will employ more controllability-filters than their British counterparts. However, as Germany and the Netherlands have only a little lower uncertainty avoidance than Taiwan, it seems hard to predict the direction of their cultural dimensions. Three other cultural dimensions could lead Taiwanese operations to put less emphasis on controllability-filters. First, because Taiwanese society is more power distanced, the senior manager owes the junior managers protection and consideration. The senior managers always like to play the role of being a good father. Secondly, because Taiwanese society is more collectivist, many high-level managers come from the in-group. The senior managers always believe these people more than the system. Even though they emphasise the budget objective, they still put more emphasis on the whole company objective rather than specific units' objectives. Finally, under Confucian work dynamism, virtuous behaviour towards others consists of treating others as one would like to be treated oneself. People keep aware of shame and the need to keep one's "face." This human benevolence induces the managers to neglect controllability-filters. As a result, Taiwanese operations use fewer controllability-filters than their European counterparts. Hence, the Taiwanese use a more relaxed formal feedback system, including frequency and extent, than their European counterparts, but they may use more informal monitoring systems, like meetings, instructions, and procedure controls (Chow, Kato & Merchant, 1996).

According to the above analysis, two sub-propositions in the evaluating function are set as follows:

Proposition 1-6: Taiwanese operations will have fewer controllability-filters than their European counterparts.

Proposition 1-7: Taiwanese operations managers will employ a more relaxed feedback system, including frequency and extent, than their European counterparts.

2.4.2.4 Rewarding Process

The term "contingent rewards" or "reward-dependency" means a preference for proportionally more monetary rewards tied to performance. According to some literature which compared Asian countries and America or Australia with Hofstede's cultural scores, Taiwanese society seems to be less reward-dependent than European societies. First, compared to European individualist societies, Taiwanese collectivist society is predicted to have a greater preference for relatively equal pay. That is, their people show more preference for preset pay. Secondly, Taiwanese society has a somewhat higher score in uncertainty avoidance than European countries, especially Britain. People in uncertainty avoidance societies tend to show higher preference for preset pay to reduce pay uncertainty due to uncontrollable influences on performance (Daley et al., 1985; Chow, Kato & Shields, 1994: 389). Thirdly, unlike Holland, Germany and Britain which have an obviously higher score on masculinity than Taiwan, dominant values in Taiwanese societies are caring for others and preservation for their managers (Hofstede, 1991: 96). However, as West European countries have been managed under socialism for a long time, the preset pay approach has become a very popular economic practice. In contrast, Taiwan has followed capitalism from America for a half-century and the contingent rewarding approach could be easily found in many companies. The rewarding system will be deeply affected by political and social-economic factors, so this study considers political and social system as a first priority and assumes the preset pay approach will be more popular in the European operations. For the above reason, the sub-proposition of contingent rewards could be set as follows:

Proposition 1-8: Taiwanese operations will give more contingent rewards than their European counterparts.

Group rewards have a strong relationship with the dimension of collectivism. In collectivist society people have a higher preference for team co-operation and they like to share the team-based rewards. "Management in a collectivist society is management of the group" (Hofstede, 1991: 65, 67). From the view of the Confucian dynamism dimension, because people have a sense of shame they do care about getting fewer rewards than others. If one receives a lower reward than other people, they would regard him as lacking ability. In addition, the dimension of uncertainty avoidance could also affect group rewards. Because Taiwanese society has a higher score of uncertainty avoidance than its European counterparts, it is assumed that Taiwanese people prefer group rewards more than European people. Based on these reasons, a sub-proposition of group rewards could be set as follows:

Proposition 1-9: Taiwanese operations will be more group reward oriented than their European counterparts.

Long-term rewards mean that the company promises its managers or employees different rewards (such as bonus and stock options) according to their long-term performance. The dimensions of individual and Confucian dynamism have been used as a basis to predict the possible direction between USA and Taiwanese dynamism (Merchant et al., 1995), and Taiwanese firms are assumed to use fewer long-term incentives than American firms. However, although this study uses the same dimensions to predict, it gets a contrary predicted direction. First, the "long-term orientation" is the most important energy to facilitate long-term economic growth in the higher Confucian dynamism of Taiwanese society. With the characteristics of thrift and persistence, people will easily sacrifice short-term benefits for their long-term interests (Chow et al., 1995: 40). Secondly, in such a collectivist society as Taiwan, people are born into extended families or other in-groups. The personal relationship ("guanxi") prevails over the task and should be established first (Hofstede, 1991: 67). Many employees hope to become a partner or own their own business. Under this condition, sharing risk, profits, and shares in long-term planning and long-term rewards in a firm seem very necessary. With the predicted direction, the proposition is also more in harmony with the proposition of short-term and long-term planning.

According to the above description, the sub-proposition could be set as follows:

Proposition 1-10: Taiwanese operations will place more emphasis on long-term rewards than their European counterparts.

2.5 Financial Control Factors as Dynamic Variables in MCS Transfer

2.5.1. Cultural Theory of Organisation and Leadership

In attempting to examine the implications of culture for management practices in cross-cultural studies, researchers have generally followed two lines of thought. The ideationalists have directed their attention to the attitudes and values expressed by organisational members; on the other hand, the institutionalists in the limited amount of research they have conducted so far have concentrated upon structural aspects within organisations, such as the division of labour, career, status and reward structures (Tayeb, 1988; 34; also see Whitley, 1992; 3). The culturalists, such as Hofstede, believe that the major strength of the cultural perspective as a whole is its

recognition of (a) the important role that culture plays in shaping work-related values, attitudes and behaviours of individual members of various societies; (b) the fact that cultural values and attitudes are different in degree from one society to another; and (c) the fact that different cultural groups behave differently under similar circumstances because of the differences in their underlying values and attitudes (Tayeb, 1988: 40). The culture and values of the organisation are crucial for matching the organisation's resources to its environment (Thompson, 1993: 77).

Stories, sagas, metaphors, myths, and the like are the means of organisational members when playing the power game of corporate culture (Schultz, 1992: 30). Leadership is intertwined with culture formation, evolution, transformation, and destruction (Quinn et al., 1988: 346; Schein, 1991: 316). Without leadership, groups would not be able to change environmental conditions. The assumptions of leaders or founders of a group, the authority relationships formed in the group, and the manner in which leaders and members interact at an emotional level will determine both the evolutionary stages of the group and its cultural "style" (Schein, 1991: 171; Wright et al., 1994: 221, 226). Although corporate culture can be manipulated like other matters under the control of managers, culture controls the manager more than the manager controls culture (Webber, 1977), through the automatic filters that bias the manager's perceptions, thoughts, and feelings. As culture arises and gains strength, it becomes pervasive and influences everything the manager does, even his own thinking and feeling (Schein, 1991: 314).

Thomas (1989) used five main elements which are symbols, language, ideology, rituals and myths (Pettigrew, 1979) to examine the effects of organisational culture on choices of accounting methods, but the results contain a number of inconsistencies. Recent research suggests that these may be due to differences in leadership style and management philosophy (Birnberg and Snodgrass, 1988). Due attention must be given to the agency of decision choice by whoever has the power to direct the organisation (Child, 1972: 2). As in the emerging paradigm of dialectical contextualism, human choice is elevated to its proper position in the context of management (Wooton, 1977: 435). A power culture has strong central leadership as a key feature and power lies with an individual or a small group at the centre who control most of the rules and procedures and individual managers are expected to work within these (Kotter et al., 1992: 150; Thompson, 1993: 90). The players activate their personal-human theory of control in order to remain "in control" (Argyris, 1990: 503). A value culture would have to be established to create sustained commitment to the new approach among key executives (Reimann, 1987: 174).

Instead of observing corporate culture directly, this study selects evaluating three critical variables from leaders' financial control factors as the symbol of the

leaders' financial control style to observe how they affect the transference of MCSs.

2.5.2 Selection of Critical Variables of Financial Control Factors

Nahavandi and Malekzadeh (1993) built a framework which considers the leader to be key to both the formulation and implementation of strategy. Nohria and Ghoshal (1994) maintained that differentiated fit and shared values are not mutually exclusive ways of effectively managing headquarters-subsidary relations. The personality, beliefs and philosophy of the central figure, or leader, of the organisation is the principal determinant of control style (Stacey, 1990: 126). From the leader's control aspect, three variables are selected as follows.

2.5.2.1 Degree of Control

Authority is essentially the institutional code within which the use of power as medium is organised and legitimised. It is a basis of power, in fact the only basis of power, rather than a kind of power (Pettigrew, 1973: 24). From the organising view, the degree of control is the most important cornerstone in organising a corporation. "Degree of control" is the control a leader wants to have over internal organisational functioning (Nahavandi and Malekzadeh, 1993). Degree of control has a deep relationship with the leader's philosophy and education or experience background. A leader may maintain high control over his organisation through high centralisation and little delegation; in contrast, a leader who maintains less control may allow for decentralisation and delegation of many activities.

2.5.2.2 Budget Emphasis

From the view of financial control, the leadership style frequently reflects on the "budget emphasis." The beliefs and philosophy of the central figure, or leader, of the organisation are a principal determinant of control style. If the views and beliefs of the leaders on control are ably articulated by word and deed, such beliefs will permeate through the organisation (Stacey, 1990: 126). Budgets have been viewed as a major tool for organisation control. The high and low budget emphasis can be imposed in four budget evaluative styles, namely budget-constrained (BC), budget-profit (BP), profit-conscious (PC), and non-accounting (NA) (Brownell, 1982; Hirst, 1986; Dunk, 1989; Emmanuel et al., 1990: 179; Brownell and Dunk, 1991; Lau et al., 1995). Budget evaluative style is defined as the way in which a unit manager perceives the budget to be used in evaluating his performance, in relation to other relevant information (Otley, 1978). Whether an organisation emphasises accounting measure or non-accounting measure has different influences on performance in

different cultural areas (Harrison, 1992, 1994). Budget evaluative style has a deep relationship with the strategy and its implementation, so that a corporation needs to match a different budget evaluative style with different strategies (Simons, 1987, 1990). Hopwood (1972) found that a leadership style characterised by an emphasis on budget-constrained performance was significantly associated with job-related tension (JRT). He went on to speculate that JRT would be dysfunctional for performance. Otley (1978) attempted to replicate and extend Hopwood's work, but his results were inconclusive. Yet he still suggested that superior performance levels were associated with a budget-focused leadership style. Brownell (1982) suggested the tendency for high performance was associated with a de-emphasis on the budget by supervisors. His results are consistent with Hopwood (1972), but contradictory to Otley (1978) whose results suggested that a better performance tends to be associated with a budget-constrained style. Brownell and Hirst (1986) found that compatible combinations of participation and budget emphasis (high/high and low/low) are more effective in reducing job-related tension (JRT) in low as opposed to high task uncertainty activities. For performance, however, the failure to support, or to confirm Brownell's(1982) result, is perplexing. Dunk (1989) remarked that their research data collected from a single company were based on non-random sampling. Brownell and Dunk (1991) chose samples carefully and their results further contributed to a reconciliation of the Hopwood/Otley conflict with the explanation of high and low task difficulty. Kren (1992) found that budgetary participation facilitates job relevant information (JRI) acquisition by managers and that JRI, in turn, is more associated with improved performance than the motivational effects.

This study will observe the budget emphasis from the views of senior managers at headquarters and managers at operational level. In addition, it will also be observed among top managers, senior financial managers, and other senior managers at headquarters.

2.5.2.3 Selection of Managers

Expatriate managers are very important bridges, especially to those "cross-national isomorphism (Ferner, 1996: 10)" multinational firms. Wright et al. (1994: 222) argued that a group of compatible managers can provide a very powerful sense of direction for the company. Transfer of managers was a process for specialisation and for creating a verbal information network (Edstrom and Galbraith, 1977: 249). They could play an important interpretative role bridging host country nationals and nationals in headquarters' offices (Boyacigiller, 1990: 360). However, where there is a greater utilisation of local nationals in managerial posts, especially those at higher level, firms are less likely to experience problems involving friction and poor

communication between expatriates and local personnel, as well as complaints by local nationals of lack of opportunities for advancement (Kopp, 1994: 594). An open or closed managers' selection philosophy will impact greatly on the management control system. For facilitating the communication and control process, the use of parent country nationals allows for greater control in certain segments of the system while maintaining the flexibility for less control in other parts (Boyacigiller, 1990: 373). Many American, European and Japanese companies send their expatriate managers to their overseas operations. Owing to the elaborate system of detailed financial controls, British and American MNCs have in place an international system of performance management (Coates et al. 1992). American firms are much more likely than Japanese firms to have standardised world-wide systems of performance evaluation (Smith, 1992: 45; Kopp, 1994: 587-589; also see Ferner, 1996: 12; Walsh, 1996: 635). The selection of managers in foreign operations has a close relationship with whether the company system transfers.

A material difference in the philosophy of human resource management exists between Western and Eastern countries (Tung, 1982; also see Smith, 1992, 45-46). The policy of managers' selection has contingent problems, but the choice of policy may also be influenced by cultural factors (Smith, 1992: 46). Western thinking is more analytical, concerned with processing the Truth (Hofstede, 1991: 173) and more dependent on systems. In contrast, Eastern thinking is synthetic, concerned with respecting the demands of virtue and more dependent on people. Hiring the right people is far more important than having the right organisation, because the people will adjust the organisation to the requirements of place and time. In the individualist society the task is supposed to prevail over any personal relationships. The distinction between in-group and out-group which is so essential in the collectivist culture pattern has far-reaching consequences for business relationships, beyond those between employers and employees (Triandis, 1989: 509; Hofstede, 1991: 66-67; Fuller and Peterson, 1992: 187; Li, 1993: 67). "Selection of managers" should be explored in studying Taiwanese corporations, for many corporations are held in large proportion by family groups. Many corporations are still particularist⁷. Hiring and promotion decisions take the employees' in-group into account (Quinn et al., 1988: 348; Hofstede 1991: 67). In addition, many Taiwanese leaders still have traditional notions and would rather believe a man than a system (Whitley, 1992: 62-63).

⁷As the distinction between "our group" and "other group" is at the very root of people's consciousness, treating one's friends better than others is natural and ethical, and sound business practice. Sociologists call this way of thinking particularism (Hofstede, 1991: 66).

2.5.3 National Culture and Financial Control Factors

Culture is the distinctive way of life of a group of people, their design for living (Kluckhohn, 1950). The collective programming of the mind (Hofstede, 1980/1984) influences the behaviour of the group in the interaction within and across a system. Because the corporation leader's philosophy is deeply rooted in his cultural background, it is reasonable to assume that the leader's financial control style is easily influenced by his national culture. Hence, the proposition between national culture and leaders' financial control factors could be built as follows:

Proposition 2: National culture has a significant effect on the main leaders' financial control factors of Taiwanese corporation headquarters, including degree of control, budget emphasis and selection of managers.

2.5.3.1 Degree of Control

Compared with European countries, Taiwanese cultures have higher power distance, lower individualism, and have more Confucian dynamism. People who have high power distance tend to prefer, or are at least more willing to accept, greater centralisation of the decision making authority and less participation in the decision process (Merchant et al., 1995). Under this condition, senior leaders of the headquarters are more likely to be authoritative, because their subordinates have strong dependence needs and expect superiors to behave autocratically and not to consult them (Hofstede, 1980/1984). In addition, "keeping harmony like a family link" in a collective society and "maintaining an ordered system" under Confucian thinking also greatly facilitate greater centralisation. Naturally, the sub-proposition of degree of control can be inferred as follows:

Proposition 2-1: The leaders of Taiwanese headquarters affected by their cultures have high degrees of control in their corporations.

2.5.3.2 Budget Emphasis

Individualists believe that the self is the basic unit of survival while collectivists hold the view that the unit of survival lies in a group or several groups (Hui, 1989). Collectivists will regard themselves as less differentiated from, and more connected with, other people, especially those whom they regard as significant, and will put much value on harmonious interpersonal relationships (Bochner, 1994). Overall, hierarchy and harmony are important defining attributes of collectivists (Triandis et al., 1990). In such circumstances, the senior manager of headquarters would take a flexible and conservative method of evaluative style to maintain the

hierarchical structure. They tend to give their subordinates more flexibility; in other words, they prefer choosing a profit-conscious style or a non-accounting style to a budget-constrained style or a budget-profit style. In a society with large power distance such as Taiwan, might prevails over right, and whoever holds the power is right and good (Hofstede, 1991: 43). The middle management level is small and the budget normally could not be emphasised by leaders. In addition, in a society with Confucian dynamism, people frequently tend to focus on long-term orientation so they easily tolerate the short-term variances. According to what is discussed above, the sub-proposition of budget emphasis could be set as follows:

Proposition 2-2: The leaders of Taiwanese headquarters affected by their cultures use a low budget emphasis approach to evaluate their operational performances.

2.5.3.3 Selection of Managers

Organisations vary in their managers' transfer policies: to fill positions, to develop managers, and to develop integrated organisation (Child, 1973: 3; Edstrom and Galbraith, 1977: 252-253). However, in the collectivist society, people tend easily to use relatives or in-group staffs who have served for a long period and who seem to be absolutely loyal to them in important positions, especially in the foreign subsidiaries. Members of collectivist cultures perceive their in-groups as more homogeneous than their outgroups and they perceive more intimate and subordinate social behaviours as what are required toward their in-group members (Triandis and McCusker, 1990: 1006). In addition, because Confucian work dynamism emphasises the ordered relationship in society, the senior managers at headquarters and their subordinates have ordered relationships in their mind. In a large power distance society such as Taiwan's, an ideal leader is a benevolent autocrat or good father (Hofstede, 1991: 37), and he always selects important managers from his in-group by rank.

According to the above discussions, the sub-proposition of selection of managers could be set as follow:

Proposition 2-3: The leaders of Taiwanese headquarters affected by their cultures choose their important managers from their in-groups.

2.5.4 Financial Control Factors in MCS Transfer

As mentioned above, the management control system is a function of national culture and leadership factors. If the national culture is a major determinant of the effectiveness of the MCS, the use of components of the MCS does differ between different countries; that is the MCS lacks the possibility of transfer in total. In contrast, if the financial control factors are major determinants of the effectiveness of the MCS, transferring MCS between countries becomes possible.

Because the leader's philosophy has significant impacts on the financial control factors, it is possible that corporation leaders would transfer their MCSs to foreign operations. A series of literature has found that leader's philosophy has significant impacts on MNC system design. Ferner (1996: 7) even remarked that the Hofstedian approach to national culture brings the danger of exaggerating the persistence of national factors. Actually, whether to transfer a system or not can be viewed as a choice between two strategies: to adapt to the environment of the host country or to attempt to introduce the country-of-origin's system into the host operation. As mentioned above, many transferences of financial systems have been found in American and European MNC firms (such as Coates et al., 1992; Kopp, 1994).

In cross-national comparison based on the cultural dimension, if parts of components, or even all components, are not different, it may indicate that financial control factors may have more significant impacts on the components of the management control system than national cultures. In that case, for the purposes of continuing to examine how financial control factors affect the differences, we make the conditional proposition as follows:

Proposition 3: Financial control factors including degree of control, budget emphasis and selection of managers have a significant impact on the components of management control system.

2.5.4.1 Degree of Control

The greater the leaders' authority, the greater the degree of control they have over the management control systems so that they may have more power to reduce the system differences. The greater the degree of control, the fewer the differences on the components of MCSs between their domestic and European operations.

Proposition 3-1: The greater the degree of control by the headquarters' leaders, the fewer the differences between the Taiwanese and European operations.

2.5.4.2 Budget Emphasis

Budget evaluative style reflects the leaders' management philosophy. Budget planning and controlling processes easily become common management language within a firm. If leaders emphasise operating budgets more, a strict financial control in their firms will emerge naturally. On the other hand, if leaders emphasise long-term visions and multi-strategies at both corporate level and operational level, they need to match these with a more flexible control of budgets. The less they emphasise budgets, the more the differences between their domestic and European operations. In contrast, the more emphasis they put on their budget, the fewer the differences in the components of the MCSs between their domestic and European operations.

Proposition 3-2: The greater the budget emphasis by the headquarters' leaders, the fewer the differences between Taiwanese and European operations.

2.5.4.3 Selection of Managers

The philosophy of cross-national isomorphism and local isomorphism significantly affects human resource management in MNCs (Ferner, 1996). Expatriate managers, especially those in top positions, find it is possible to keep their leaders' philosophy and to introduce country-of-origin systems into host country operations. Many multinational corporations are increasingly interested in promoting corporate culture to improve control, co-ordination, and integration of their subsidiaries (Schneider, 1988). Some leaders attempt to decrease or eliminate cultural differences through human resource management. In addition, the Chinese pride themselves on their acquisition of knowledge and skill, so they have low resistance to change and have high productivity (Latham and Napier, 1989: 193). Because of facing the high velocity of the technological environment, it seems necessary for IT firms to send some Chinese managers to overseas operations. If Taiwanese leaders were to use more relatives or in-group staff in European operations, there would be fewer differences in components of MCSs.

Proposition 3-3: The more relatives or in-group subordinates used in European operations, the fewer the differences between Taiwanese and European operations.

2.6 Other Situational Contingent Factors and MCS Mechanisms

2.6.1 Contingency Theory in MNCs

Since Lawrence and Lorsch (1969) developed the contingency model, the contingency theory has significantly influenced management theories. Contingency theory is a broad concept. It emphasises that an organisation should fit its environment (Child, 1972; Gordon and Miller, 1976; Govindarajan, 1986; Gresov, 1989; Abernethy and Stoelwinder, 1991; O'Reilly III, 1991; Kay, 1993; Wright et al., 1994; Punnett and Shenkar, 1994: 41). Typically, the manager has a dynamic role in monitoring and achieving an effective "fit." Implications of this are that there is no one best way to organise and no one best management control system, and the nature of that system depends on the degree of differentiation in a particular company (Child, 1972: 3; Anthony et al., 1985 47). Hence, the more complex and uncertain are the environmental influences, the more the organisation needs to differentiate and specialise its structure and system to fit the environment.

Optimal management control systems depend on the particular elements of a firm's environment. Gordon and Miller (1976) discussed uncertainty as a contingency variable. They hypothesised that as dynamism increases, the effective accounting information system begins to deliver more non-financial data to managers with information on competitor actions, and increases in the frequency of reporting. Waterhouse and Tiessen (1978; 74) argued that an increase in environmental uncertainty may influence the design of performance reports in such dimensions as frequency of reporting and level of aggregation. They also argued that increases in uncertainty lead to a decrease in reliance on highly specified procedures and also to increased decentralisation. Otley (1980) suggested that accountants have not devoted enough effort to analysing the limitations of the organisation theory literature and to questioning its application to the management control context. In addition, he also suggested a more careful theory of the management control process is needed. Evans et al. (1986) proposed a primary conclusion to their analysis, that the effect of uncertainty on the optimal management control system depends on the specific circumstances in which the firm operates. It is argued that while a more explicit theory is needed, the development of relatively simple models is a major step in the construction of an all-inclusive model of management control. Govindarajan (1988) focused on what is perhaps the most critical aspect of strategy implementation in larger, multinational corporations. He found that high managerial internal locus of control and low emphasis on meeting a budget are associated with high performance in SBUs employing a strategy of differentiation. Simons (1990), based on a 2 year field

study, presented a new model to show how interactive management control systems focus the organisation on strategic uncertainties.

One of the major weaknesses of contingency control research is the piecemeal nature in which it is done (Fisher, 1995: 24). Explanation in terms of contingency is unlikely to be sufficient (Child, 1981: 320). A great number of control variables, including external environment (such as uncertain vs. certain, static vs. dynamic, simple vs. complex), competitive strategy (such as product life cycle, stage of development, operating strategy, global strategy), technology (such as type of production, producing interdependence), firm and industry variables (such as industry structure, firm diversification, size, SBU) and other contingent variables (such as organisational culture, leader philosophy, knowledge of the transformation process), could influence management control design. The ultimate goal of contingent control research should be to develop and test a comprehensive model that includes multiple control systems, multiple contingent variables, and multiple outcome variables (Fisher 1995: 24), but owing to the weaknesses of its futurism and its posture of value neutrality (Wooton, 1977: 435) it is very difficult to reach the target, at least up to date. Many Hofstedian culturalists even argued one gets a better result based on cultural dimensions than based on contingent variables in cross-national comparison. By controlling for some contingent variables, it is possible to help study the influence of culture (Child, 1981; also see Snodgrass and Szewczak, 1991: 160), but sometimes it is very difficult for cross-national comparison within multinational firms. Until now, the only way for researchers of contingency theory is to refine the identification of contingency factors for their special purposes.

2.6.2 The Selection of Other Situational Factors

Mintzberg (1988) proposed contingency or situational factors including size and age of organisation, technical system of production, various characteristics of environment (such as stability and complexity) and the power system. This study focuses on information technological (IT) corporations, which have a similar environment and techniques of production. In addition, the power system has a deep relationship with leaders' financial control factors which have been regarded as dynamic variables in this study, so here only size and age are retained as situational factors. Size is strongly associated with structural differentiation and the design of control mechanisms, and it is the most popular contingent variable in the literature of control systems (such as Hickson et al., 1974; Negandhi, 1975; Lincoln et al., 1978; Rockness and Shields, 1984; Lincoln et al., 1986; Demirag, 1990; Wong and Birnbaum-More, 1994; Dedoussis, 1995). Although the operational scale was also

chosen and carefully controlled pairs for purposes of comparison within a multinational firm, it is still not so easy to choose case samples freely, for example for a cross-cultural comparison between firms in two countries or areas but with different owners. Sometimes, the problem of different sizes still exists there. In addition, even when pairs have already been chosen very carefully, when comparing the effect of MCS transfer among the case firms the problem of size will still emerge.

As well as the factors of size and age, from the desk research and in-depth interview another two critical contingent factors were used to test propositions in this study. One is the approach to acquisition. Much literature indicated that serious cultural conflicts happened in those companies purchased by or merged with multinational firms (e. g., Olie, 1994). The diverse cultural backgrounds translate into a lack of cognitive similarities which can significantly hamper communication at the interface (Frucot and Shearon, 1991: 82). Many interviewees in this study also complained of cultural conflicts caused by purchase or merger. Another critical factor is business focus which relates to corporate global strategy. Many researchers (such as Child, 1972; Govindarajan and Gupta, 1985; Snodgrass and Grant, 1986; Govindarajan, 1988; Govindarajan and Fisher, 1990; Daniel and Reitsperger, 1991) have focused on linkages between strategy and control system. Many Taiwanese multinational firms use the strategy of global collaboration. Within a multinational firm, an operation may be defined as manufacturing oriented, marketing oriented, or production-marketing oriented. Different orientations also represent different extents of interdependence between an operation and its parent company. The definition of an operation, of course, will have a significant impact on the MCS transfer.

2.6.3 Propositions of Other Situational Factors

According to the contingency theory mentioned above, a general proposition of other situational factors could be built as follows:

Proposition 4: Situational factors of European operations, including size, age, approach to acquisition, and business focus, will significantly affect their MCS transfer from their Taiwanese operations.

2.6.3.1 Size of Operation

Owing to marketing and historical reasons, the scales of European operations of the case firms normally could not compare with their Taiwanese counterparts. According to a great deal of literature, the factor of size is an important variable in the design of management systems. Owing to their small scale, it was difficult for some European operations to learn MCSs from their parent companies. As European

operations grow in size, they are able to specialise their tasks more finely; as a result, they can easily use the management control systems transferred from the home country.

Proposition 4-1: The size of European operations has a relative impact on firms' management control systems. The larger the European operation, the fewer MCS differences between European and Taiwanese operations.

2.6.3.2 Age of Operation

When an overseas operation is established or bought, owing to its being a small business or to cultural conflict, its survival normally is the most important thing. The parent company also needs to observe which systems are better for the operation. The longer the history of European operations, the more firms' managers tend to repeat their behaviours; as a result, they become more predictable and so more amenable to their management control systems. Gradually, the parent company will transfer some systems to the operation.

According to the above analysis, the proposition of age of operation is as follows:

Proposition 4-2: The age of European operations has a relative impact on firms' management control systems. The older the European operations, the fewer MCS differences between the European and Taiwanese operations.

2.6.3.3 Approach to Acquisition

The method of acquiring a business may significantly affect the MCS transfer within a multinational firm. When an operation is set up through greenfield, the firm can easily arrange the employment of managers and set up new systems from the home country; in contrast, if an operation is bought or merged with other company, it is more difficult to change their old system at once. Hence, this research predicts the sub-proposition of acquiring approach as follow:

Proposition 4-3 The acquiring approach has relative impacts on firms' management control systems. With the greenfield approach, there are fewer MCS differences between the European and Taiwanese operations than with the purchase or merger approach.

2.6.3.4 Business Focus

Global structure and strategy are getting more important for multinational firms. If a foreign operation's role is very close to its headquarters' operation then their systems are easily similar. In other words, MCS transfer is more possible. Many Taiwanese IT companies set up their European operations only as market-oriented

units which significantly differ from their Taiwanese counterparts, normally production-marketing oriented. The study will predict that the closer the business focus, the more the MCS transfer.

Proposition 4-4 The business focus of European operations has relative impacts on their management control systems. Under the production-marketing orientation, there are fewer MCS differences between the European and Taiwanese operations than under the marketing orientation.

2.7 The Research Framework

The relative contribution of cultural, contingency, and political-economical factors cannot be separated since they are different sides of the same coin, of non-rational problem-solving. (Sorge and Warner, 1986: 34-35)

Based on Hofstede's cultural dimensions, four research propositions were established as described in sections 2.4-2.6. The first proposition concerns the impact of cultural differences on the MCSs of the Taiwanese and European operations of Taiwanese firms. The second proposition examines the influences of national culture on leaders' financial control style. The third proposition examines the relationship between leaders' financial control style and the uniformity of MCSs. The fourth proposition examines the relationship between local situational factors and MCS transfer from the home country. The relationships between MCS transfer and national culture, financial control factors, and other situational factors, make up the research framework. This framework shows the linkage between the influential variables, impacting on MCS transfer to host country operations, and the related research propositions, which are hypothesised as shown in Figure 2.2. The variables used in the research are summarised in Table 2.2. National culture, financial control factors, and situational factors represent cultural values, managerial values, and situational values respectively. Basically this framework sets MCS transfer as a function of cultural values, managerial values, and situational values. However, this study focuses more on the function of financial control factors and national culture (expressed by heavy black arrows). Although a great deal of literature has touched upon cross-cultural research and system transfer, there has been a lack of a comprehensive approach or framework to explain the phenomenon of MCS transfer. Cultural theory and contingency theory were used by many scholars to support comparative research, but few researchers' have used leaders' financial control factors as dynamic variables to explain how they

influence MCS transfer. In addition, this framework firstly compares MCSs within MNCs and then considers the transferability of MCSs with national culture, financial control, and situational factors together.

Figure 2.2 Research Framework

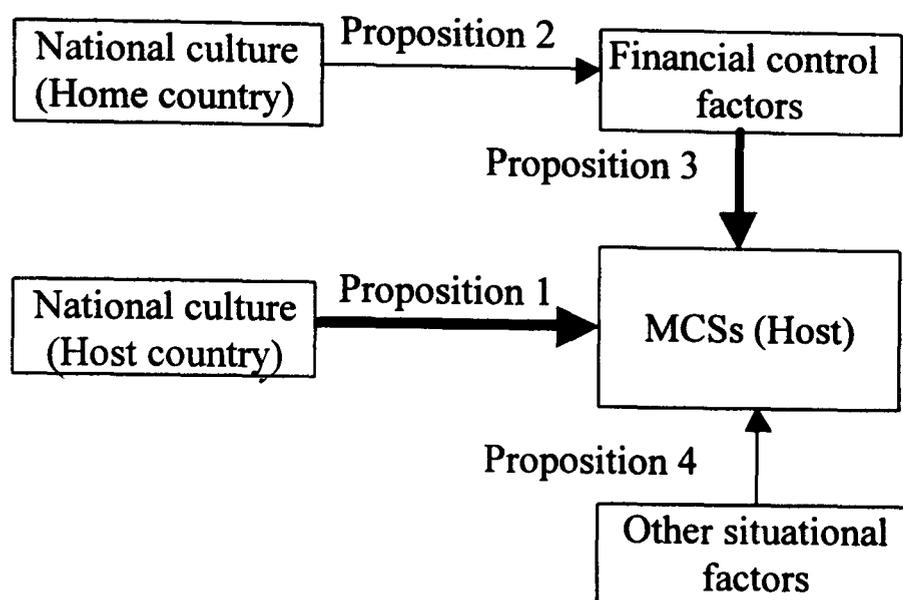


Table 2.2 The summary of the Research Variables

Dimensions of national culture	Financial control factors	Other situational factors	Components of MCSs
Power distance	Degree of control	Size of operation	Objective setting
Individualism	Budget emphasis	Age of operation	Participation
Masculinity	Selection of managers	Approach to acquisition	Long-term and short-term planning
Uncertainty avoidance		Business focus	Decentralisation
Confucian dynamism			Formality
			Controllability-filters
			Feedback extent and frequency
			Contingent rewards
			Group rewards
			Long-term rewards

Table 2.3 The summary of the Research Propositions

Proposition	Purpose	Independent variable	Dependent variable
Proposition 1	The impact of local national culture on MCSs	Hofstede's national cultural dimensions	Components of MCSs
Proposition 2	The impact of home national culture on financial control factors	Hofstede's national cultural dimensions	Financial control factors
Proposition 3	The impact of financial control style on MCSs	Financial control factors	Components of MCSs
Proposition 4	The impact of local situational factors on MCSs	Situational factors	Components of MCSs

The four research propositions as described in Table 2.3 are established to provide the basis for this exploratory study. In this context, the main aim of the research is to explore the relevance of a more comprehensive understanding and the transferability of MCSs within multinational firms.

Propositions

According to the diagram shown in figure 2.2 and Table 2.3, four important propositions are established as the basis for the research. Proposition 1 is set to explore the relationship between host national culture and host MCSs. A cross-cultural pair-comparison between European operations regarded as the host country and Taiwanese operations seen as the home country will be made. Following in the steps of the culturalists, Hofstede's cultural dimensions will be used firstly to compare MCSs within a MNC. Ten components of MCSs will be chosen for comparison. Differing from past cultural studies using a quantitative survey, qualitative in-depth interviews will be conducted at operational level to support the research findings. Proposition 2 is set for testing the relationship between the national culture of the home country and financial control factors. Hofstede's cultural dimensions will be used to examine the relationship between the two elements. For the purposes of understanding the financial control styles of the case firms, in-depth interviews will be conducted at each headquarters of the case firms to examine key financial control factors. Proposition 3 is designed to examine financial control factors as dynamic variables to see how they affect host MCSs. For the purposes of probing the dynamic process, the in-depth interviews described in proposition 2 will cover key senior managers at each headquarters of the case firms. In the context of different financial control styles, the extent of uniformity of MCSs will be examined. The final research proposition is set to examine the impact on MCS transfer arising from other situational factors. From the interviews conducted at the case firms' headquarters and at the operational level, and from relevant data, four relevant situational factors will be examined in the process of MCS transfer.

Operational Definitions of Variables

The management control system (MCS), which is the focus of this research, is defined as a formal mechanism of gathering information to aid and co-ordinate the process of making planning and control decisions throughout the organisation. Based on the whole cycle of the management control system, ten components are selected for comparing and testing including: objective setting, participation, long-term and short-term planning, decentralisation, formality, controllability-filters, feedback extent and

frequency, contingent reward, group rewards, and long-term rewards.

National culture is defined as a "collective programming of the mind which distinguishes the members of one nation from another (Hofstede 1980/1984, 1991)." Hofstede's five cultural dimensions were compared between Taiwan and Western European countries and three of them were clearly different, including individualism/collectivism, power distance, and Confucian work dynamism.

Financial control factors such as the leaders' financial control style are defined as the critical variables of leaders' financial control. By evaluating three financial control factors, including degree of control, budget emphasis, and the selection of managers, different financial control styles will be classified in this study. "Degree of control" is the control a leader wants to have over internal organisation (Nahavandi and Malekzadeh, 1993), and is the basis of power. This research will assess it through evaluating decision-making systems between headquarters and the operational level. "Budget emphasis" represents the attitude of budget evaluative style within a corporation. In this research, the case firms' budget evaluative styles will be probed and budgeting practices in each of the case firms will be compared. The "selection of managers" represents the attitude of hiring expatriate managers in foreign subsidiaries. This study will assess it by evaluating the extent of an "in-group" within a MNC.

Other situational factors represent contingency factors in the research. Four situational factors, including size, age, approach to acquisition, and business focus, will be treated as moderating variables between the relationship of financial control factors and the uniformity of MCSs. Greenfield and purchase approaches will be compared in the approach to acquisition, and marketing orientation and production-marketing orientation will be discussed in the business focus.

2.8 Conclusion

Reviewing literature is like reading history which operates as a mirror and reflects some pictures. Through the literature review, researchers' learn the extent of academic development, and what its drawbacks are. It easily highlights directions for future research and also helps researchers' to design their own particular research approaches.

In this chapter, the relevant literature about cross-cultural MCS comparison has been reviewed, and three important elements affecting MCS transfer have been fully probed. Based on the literature review, a series of propositions has been built and a novel research design developed.

3. Methodology

- 3.1 Introduction
 - 3.2 Research Design
 - 3.3 Case Firms and Data Collection
 - 3.4 Validity and Reliability
 - 3.5 Summary
-

3.1 Introduction

The last chapter contained a review of important relevant literature and built up the conceptual framework in order to highlight the factors impacting on the transfer of the management control system, including leadership factors, national cultures, and other situational factors.

This chapter discusses the methodology for achieving the research objectives and inferring experimental propositions. Altogether, the research used case study and comparative methods to analyse multiple sources of data collected from desk research, in-depth interviews, and document data sources.

As Table 3.1 shows, the research was divided into three phases, (1) a literature review and framework build-up, (2) field work research, and (3) generalisations and conclusions. Of course, most of the literature review was finished by initial desk research, but some continuing desk research and initial interviews from academics and managers (especially pilot interviews) still significantly changed the research framework. At the field research stage, different interviews were used for different purposes but cross-checking was conducted at the headquarters and operational level. Multiple data sources with qualitative research can be helpful in building up the triangulation and the one most obvious advantage of the triangulation is to check the validity of findings (Bryman, 1989: 175). In the whole process of the field research, research validation and reliability were continually concerned with making sure that the generalisations and conclusions could be crystallised and interpreted reasonably.

In addition to the above, the selection of case firms and the methods of data collection are also contained in this chapter.

Table 3.1 Outline of Research Design

Step	Method	section
Phase I : Literature review and framework build-up		
1. Identification of the relevant factors of MCS transfer and organizing research framework	<ul style="list-style-type: none"> • Review of the literature • Consulting academics and senior managers. • Connecting research framework 	<ul style="list-style-type: none"> • 2.2~2.6 • 3.3 • 2.7
Phase II: Field research		
2. Exploring IT industry in Taiwan and case firms in the research	<ul style="list-style-type: none"> • Review of the literature • Collecting data from internal documents • Interviewing senior managers 	<ul style="list-style-type: none"> • Ch. 4~5 • 3.2~3.3 • 3.3
3. Developing the interview content	<ul style="list-style-type: none"> • Review of the literature • Consulting academics and senior managers • Initial visits and pilot work 	<ul style="list-style-type: none"> • 3.2, ch. 2 • 3.3 • 3-3
4. Understanding the similarities and differences of operations' MCSs within each case firm, and their influences from national culture	<ul style="list-style-type: none"> • Interviewing senior managers of operations • Verbatim interview tape recordings and building data bases for different purposes and variables • Verifying the relationship between national culture and operation's MCSs 	<ul style="list-style-type: none"> • Ch. 6 • 3.3 • 3.3 • Ch. 6
5. Exploring the relationship among national culture, financial control factors, and MCS transfer	<ul style="list-style-type: none"> • Interviewing senior managers at headquarters • Verbatim interview tape recordings and building data bases for different purposes and variables • Verifying the relationship between national culture and leadership factors • Verifying the relationship between financial control factors and MCS transfer 	<ul style="list-style-type: none"> • Ch. 7~8 • 3.3 • Ch. 7 • Ch. 8
6. Understanding the impact of other situational factors on MCS transfer	<ul style="list-style-type: none"> • Review of the literature • Interviewing senior managers of operations 	<ul style="list-style-type: none"> • 2.6 • 9.2~9.5
Phase III: Generalisation and conclusion		
7. Conclusion, recommendation, and limitation	<ul style="list-style-type: none"> • Crystallisation and interpretation of the analysed results • Logical thinking and inference 	<ul style="list-style-type: none"> • 10.1 • 10.2-10.5

3.2 Research Design

3.2.1 Research Approaches

3.2.1.1 Case Study

Many of the features of the case study approach are summarised in the definition proposed by Yin (1981: 59; 1989: 23; 1993: 59):

"A case study is an empirical inquiry that :

investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used."

Mitchell (1983: 192) characterises the case-study approach in terms of "a detailed examination of an event (or series of related events) which the analyst believes exhibits (or exhibit) the operation of some identified theoretical principle." In replication logic, cases which confirm emergent relationships can often provide an opportunity to refine and extend the theory; cases which disconfirm the relationships can often provide an opportunity to refine and extend the theory (Eisenhardt, 1989: 542; Tsoukas, 1989: 555). The case study may also clarify concepts and variables for further research. Because the research process generates considerable data, a comprehensive research report may contain information useful to investigators in several other areas (Arkava and Lane, 1983: 188). The case study approach uses multiple methods which, in their most methodologically self-conscious manifestation, are oriented towards strategies of multiple triangulation¹ for dealing with problems of validity and bias (Rose, 1991: 201). That is, the triangulation made possible by multiple data collection methods provides stronger substantiation of constructs and hypotheses (Eisenhardt, 1989: 538). Theory building seems to require rich description, the richness that comes from anecdote (Mintzberg, 1979: 587).

Because this research involves the interrelationship of the MCSs among national cultures, leadership factors, and other situation factors, whose boundaries between phenomenon and context are not clearly evident, we wish to gather evidence from multiple sources, including interview, document review and other direct and indirect data, to investigate a contemporary phenomenon within its real-life context. The research process is not one of establishing empirical "fact", but rather involves the interpretation of observed social practices (Scapens, 1992: 371; Tsoukas, 1989: 556-557). It is expected that the more direct methodology (Mintzberg, 1979: 583) can yield more useful "soft" data (Mintzberg, 1979: 587) so that the relationship of transferability of management control systems among national cultures, leadership factors, and other situation elements can be explained. The design was what Yin (1989: 46) has termed "embedded multiple-case" design which denotes several units of analysis. Investigation was conducted at two levels in multinational corporations: (1) The corporation headquarters level (senior managers' leadership philosophy and strategies); and (2) The operational level (management control system).

3.2.1.2 Comparative Method

Comparison provides a basis for making statements about empirical regularities and for evaluating and interpreting cases relative to substantive and theoretical criteria (Ragin, 1987: 1). The comparative method aims at the analysis of

¹Triangulation means the combination of methods or resources of data in a single study (Denzin, 1978; Patton, 1980; see Taylor and Bogdan, 1984: 68). A triangulated methodology is used to gather different types of data which can be used as cross checks (Pettigrew, 1990: 277).

the genus and the "differentia specifica" of a social system; that is, similarities and differences (Lane, 1990, p.196). In any study of a part of human relations, there is a more general idea of comparison in which social researchers constantly engage (May, 1993: 155):

"Actually, no social phenomenon can be isolated and studied without comparing it to other social phenomena...Trying to understand and explain variation is a process which cannot be accomplished without previous reflection on similarities and dissimilarities underlying the variation."

Øyen (1990: 4)

On a more general level, researchers make comparison within societies (intra-societal comparison) and between societies (inter-societal comparison) (May, 1993: 155). By examining different societies, researchers can ask why some have developed in similar ways and others in diverse ways. This adds to an understanding and explanation of the complicated relationship between economic, social and political systems (May, 1993: 157). Comparative sociology is distinct from noncomparative sociology because it uses a particular explanatory unit², the society or system (Ragin, 1981: 107). In comparative research, different organisational units of analysis constitute the local points of inquiry (Tsoukas, 1989: 554). Most comparativists, especially those who are qualitatively oriented, are interested in specific historical sequences or outcomes and their causes across a set of similar cases (Ragin, 1987: 13). Comparative analysis in sociology has attracted a growing interest in recent decades, as reflected in the number of publications and journals. New study programmes dealing with different areas of the world have emerged. Area specialists claim that cross-national studies are a legitimate concern, although area studies are more oriented towards case study analysis than the use of the comparative method proper (Lane 1990: 188). In case studies the empirical findings tend to turn out stronger than the true comparative³ findings, because of the lack of a set of theoretical concepts and models with which to build true comparative hypotheses (Lane, 1990: 192-193). The aim of cross-national research is to reduce unexplained variance and find patterns and relationships (Øyen, 1990: 3). The globalising trend has changed our cognitive map. While some cultural differences are diminishing, others are becoming more salient. Comparative research may have to shift its emphasis from seeking uniformity among variety to studying the preservation of enclaves of uniqueness among growing homogeneity and uniformity (Øyen 1990: 1).

² Explanatory unit refers to the unit that is used to account for the pattern of results obtained; observational unit refers to the unit used in data collection and data analysis.

³ The true comparative type is the theoretical comparison of a number of countries on the basis of an explicit model structuring the data in a systematic fashion (Ragin, 1982).

Cross-national research provides a specially useful method both for the further development of sociological theory, and for establishing the generality of findings and the validity of interpretations derived from studies of single nations (Kohn, 1989: 77; see Øyen, 1990: 3). Richman (1977: 20,35) encourages researchers to use the comparative case study model in multinational corporations. He argued (1977: 20): "It would be theoretically possible to compare and even measure significant differences in the way that various elements of the management process tend to be performed in firms in different countries by using a common classification scheme."

This study adopted the comparative case study method to compare management control systems across different operations within the same corporation, different corporations in the same industry, and different countries with different national cultures. This cross-sectional study, like a single snapshot, cannot follow changes in time, and sometimes even draws a conclusion from a single occasion. Because of the constraint caused by shortage of resources, the research was unable to use a longitudinal approach. But to avoid the cross section bias, time is captured as much as possible in the interview field work through a retrospective analysis over several years. The longitudinal comparative case method (Pettigrew, 1990: 271) provides the researcher with the opportunity using a set of similar cases to examine why and how senior managers transfer or not transfer their systems to another country. One of the primary problems with comparative analysis is not just the ability of a researcher to understand adequately cultures and societies which are different from their own, but more specifically, to generalise and explain social relations across societies and social contexts (May, 1993: 159).

3.2.1.3 Emic and Etic

The aim of scientific research strategies in general is to account for observable entities and events and their relationships by means of powerful, interrelated economical theories subject to correction and important through empirical testing (Harris, 1979: 26-27). Emic research and etic research are two main approaches in cultural and behavioural research.

Emic operations have as their hallmark the elevation of the native informant to the status of ultimate judge of the adequacy of the observer's descriptions and analyses, the insider's or, as anthropologists call it, the "informant's" view of reality. Thus, the emic approach emphasises native or respondent categories and meanings in general and native rules, or respondent behaviour, in particular (Morey and Luthans, 1984: 27). It is a micro focus (Smircich, 1983: 343). Structure is discovered by the analyst and criteria are relative to internal characteristics (AAA, 1991:187). Extreme adherents of the emic viewpoint insist that the subject and not the researcher is the

best judge of the adequacy of the research and analysis. The subject's acceptance of the results of research is the only necessary and sufficient validation of them (Frake, 1980; Sturtevant, 1964; see Morey and Luthans, 1984: 29-30). The test of the adequacy of emic analyses is their ability to generate statements the native accepts as real, meaningful, or appropriate (Harris, 1979: 32). An idiographic perspective is one that is individual-centred and uses naturalistic environmental contexts and qualitative methods to recognise the particular and unique experience of the subject (Morey and Luthans, 1984: 27). Idiographic studies do have an epistemologically valid position, and this stems from the distinction between (a) causal laws and empirical generalisations and (b) real structures, actual events, and experienced events (Tsoukas, 1989: 559).

Etic operations have as their hallmark the elevation of observers to the status of ultimate judges of the categories and concepts used in descriptions and analyses. The test of the adequacy of etic accounts is simply their ability to generate scientifically productive theories about the causes of socio-cultural differences and similarities (Harris, 1979: 32). Etics are the universals, usually as viewed from afar, while emics are locally meaningful elements (Tayeb, 1994: 439). Extreme adherents of the etic approach believe that the researcher is the best judge of the adequacy of description or analysis. The subject's opinion may be interesting, but it is not really relevant (Harris, 1979; see Morey and Luthans, 1984: 30). Etic designates the orientation of outsider researchers, who have their own categories by which the subject's world is organised. The analytical descriptive categories of outside researchers generally are organised with a view to explanation in the broader sense traditionally used in organisational research (Morey and Luthans, 1984: 29). It is a macro focus (Smircich, 1983: 343). Structure is created by the analyst and criteria are considered absolute or universal (AAA, 1991: 187). A nomothetic perspective is one that is group-centred and uses standardised, controlled environmental contexts and quantitative methods to establish general laws (Morey and Luthans, 1984: 27).

As a matter of practical necessity, observers must frequently rely on native informants to obtain their basic information about who has done what. Recourse to informants for such purposes does not automatically settle the epistemological status of the resultant description. When the description is responsive to the observer's categories of time, place, weight and measure, actor types, numbers of people present, body motion, and environmental effects, it is etic (Harris: 1979: 36). The universal aspects of organisations could be conceived of as the visible structure, as defined in terms of dimensions such as centralisation of decision-making, specialisation of roles and functions, standardisation of procedures, and formalisation. The emic aspects would, then, be the ways by which these dimensions are achieved, in other words, the

internally meaningful and sometimes invisible processes which lie behind them. (Tayeb, 1994; 439). The level of structural characteristics (internal characteristics) is "emics" because there are absolute differences between organisations from different cultures. However, the evidence indicates that the patterns of relationships (criteria) between structural characteristics are "etics" since they appear to be culturally universal (Segall, 1986; see AAA, 1991: 187; Wong and Birnbaum-More, 1994: 100).

An etic, or universal, relationship emerges only from an individual analysis. A strong etic dimension would emerge from cross-cultural analysis as well as individual analysis (Leung and Bond, 1989: 147). In the cultural materialist research strategy, etic analysis is not a steppingstone to the discovery of emic structures, but to the discovery of etic structures. Observers necessarily begin their analysis of social life with etic categories, but the whole thrust of their analytical task ought to be the replacement of such categories with the emic units that constitute structured systems within the minds of the social actors. (Harris, 1979: 35). Idiographic research conceptualises the causal capability of structures, while at the same time it sheds light on the contingent manner through which a set of postulated causal powers interacts and gives rise to the flux of the phenomena under study (Tsoukas, 1989: 551). The emic categories are added to the etic categories to allow for a testing of propositions about human behaviour (Morey and Luthans, 1984: 30; AAA, 1991: 188). As Pelto (1970) indicates, there is an "imbedded emicism" in all anthropological research at the fieldwork level (Morey and Luthans, 1984: 30). Cross-cultural research in accounting will also be best served if it includes more emic (subjective / idiographic / qualitative / insider) perspectives to be later generally translated into etic (objective / quantitative / nomothetic / outsider) terms (Morey and Luthans, 1984: 27, 30; AAA, 1991: 188).

This study was designed not only to use a universal view to establish categories, theories, propositions, and framework, but also to use an informant's view with qualitative interviews in operations and at headquarters to probe the insider's native view of reality. Both emic and etic were used in the research, but emic was emphasised more. As a result, it is very helpful in finding the truth to compare their results. With the progress of interviews, some categories, propositions, and even the integrated framework have been changed or replaced continually. Combining the emic and etic in the study, the reliance of the research should be satisfactorily strengthened.

3.2.2 Methods of Data Collection

Since this research plans to tackle the problems of management control systems in multinational corporations, a number of data-gathering techniques including desk research, in-depth interviews at headquarters and operational level, and

document collection will be used to collect and analyse the content. This research divides the data by data source, and uses in-depth interviews to understand how and why MCS can be transferred. The researcher's claims for the validity of his or her conclusions are enhanced if the evidence from different sources can be shown to provide mutual confirmation (Bryman 1992: 131). When evidence conflicts, it can sometimes be reconciled through deeper probing of the meaning of differences. According to the principle of triangulation, data were gathered by the following methods:

3.2.2.1 Desk Research

No matter how a systematic theory is built, by understanding the sequence or flow of case firms' events over time, or verifying the field interviews, the starting point of research is to review the literature to find out what academicians or practitioners think about the transferability of management control systems. Most of the important research and theories found in the literature have been discussed in chapter 2. Archival data or stories of case firms from institutes' reports, government agencies' reports, company pamphlets, news media, business journals, or some special books concerning the case firms will appear in the following chapters to check or support the research findings.

According to the initial findings from the desk research, the research design draft, including interview problems, was formed and proposed. It was used as the basis of the following pilot study.

3.2.2.2 In-depth Interviews

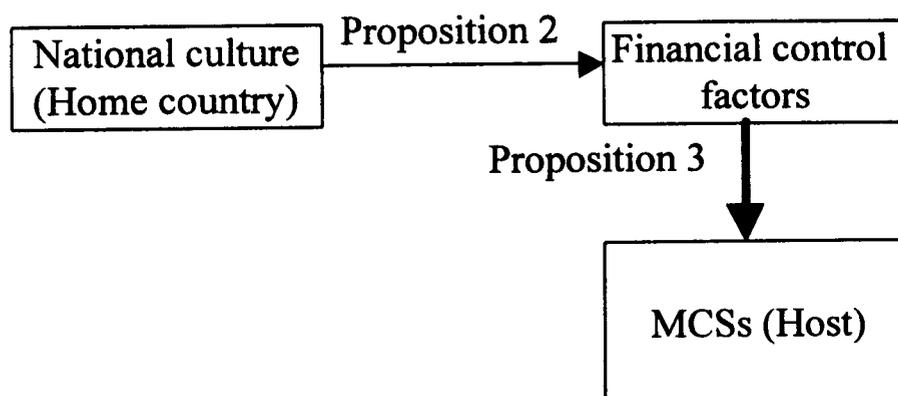
In-depth interviewing is a data-gathering technique used in qualitative research when the goal is to collect detailed, richly textured, person-centred information from one or more individuals (Kaufman, 1994: 123; also May, 1993: 99, 91). It is modelled on a conversation between equals, rather than a formal question-and-answer exchange (Taylor and Bogdan, 1984: 77). A core feature of the qualitative research method is that satisfactory explanations of social activities require a substantial appreciation of the perspectives, culture and "world-views" of the actors involved. (Allan, 1991: 177-178). According to Easterby-Smith et al. (1991: 74), interviews, semi-structured or unstructured, are therefore appropriate methods when it is necessary to understand the constructs that the interviewee uses as a basis for his opinions and beliefs about a particular matter or situation.

Interviews with senior managers at headquarters

This research uses a semi-structured but open-ended approach (See questions in Appendix 1), similar to the focused interview (May, 1993: 99), to interview the senior managers at headquarters in order to highlight national cultural effects on leadership factors and, in turn, their impact, compared with national cultures, on management control systems. The semi-structured interview is geared to allowing people the freedom to respond in any way they choose (Layder, 1993: 41; Kaufman, 1994: 124; May, 1993: 93; Jones, 1991: 204). These types of interviews are therefore said to allow people to answer more on their own terms than the standardised interview permits, but still provide a greater structure for comparability over the focused interview (May, 1993: 93).

As Figure 3.2 shows, the purpose of the interviews is to examine propositions 2 and 3. The three factors, degree of control, budget emphasis, and the selection of managers, will be examined in the context of their relationship with national culture in proposition 2. In addition, the three factors represent power, money, and personnel respectively. These factors significantly influence a firm's financial control system. The research will try to categorise leaders' financial control style through evaluating the three factors. Then, in proposition 3, the leadership factors will be used to connect the components of MCSs in each of the cases to assess the existence, if any, of different patterns.

Figure 3.1 The purpose of Interviews at Headquarters



It is extremely important that the investigator should have a clear idea of the research questions before embarking on the construction of both the interview guide and interviewing itself (Kaufman, 1994: 124). While interviewing at corporation headquarters, the researcher prepared a list of topics and questions that identify and specify the phenomena to be studied on leaders' financial control factors (for questions, see Appendix 1), although this list will be flexibly used to, in an open-ended way, according to the emergent demands of the interviewees' response.

Adhering to the leadership philosophy on management control systems, basically, the questions were developed with three factors in mind - degree of control, budget emphasis, and managers' selection. The questions are derived primarily from readings of contemporary management literature, especially from Johnson and Gill (1993), Hofstede (1991), Naharandi and Malekzadeh (1993), Stacey (1990), Kotter and Heskett (1992), Deal and Kennedy (1982), Goold and Campbell (1987), Brownell (1982), Dunk (1989), Brownell and Dunk (1991), Otley (1978), Hoopwood (1972), Koop (1994), Smith (1992), Whitley (1992). Of course, initial visits and pilot work are also very helpful in designing and revising relevant questions. The content and purpose of questions designed to discuss each factor are broadly outlined as follows:

Degree of control: This factor involves a series of main questions, such as "How do you use management control systems to manage the whole company?" "How do you convey the company policy and operating philosophy to the operations' managers?" "Does your company have a clear decentralised decision making system? How do you decentralise?" "What decisions are controlled by headquarters? What decisions belong to the manager of operations?" The purpose of these questions will be to try to probe the attitudes to centralised leadership, strategic management style, decentralised decision making, and the relationship between headquarters and subsidiaries in each case firm. Based on these themes, the pattern of the "degree of control" of case firms can then be determined.

Budget emphasis: This factor contains an assessment of the budget evaluative style used by prior scholars (Hopwood, 1972; Otley, 1978; Brownell, 1982; Hirst, 1986; Dunk, 1989; Brownell & Dunk, 1991) and some questions relating to the budget system, including the role of the budget, formal planning, the process of budget setting, budget evaluation, tightness of budget control, and the linkage between the budget and incentives. The purpose of assessing budget evaluative style is to establish whether a firm comes in the category of high budget emphasis or not. Questions related to budget system will be analysed as another criterion to support the classification of the budget emphasis.

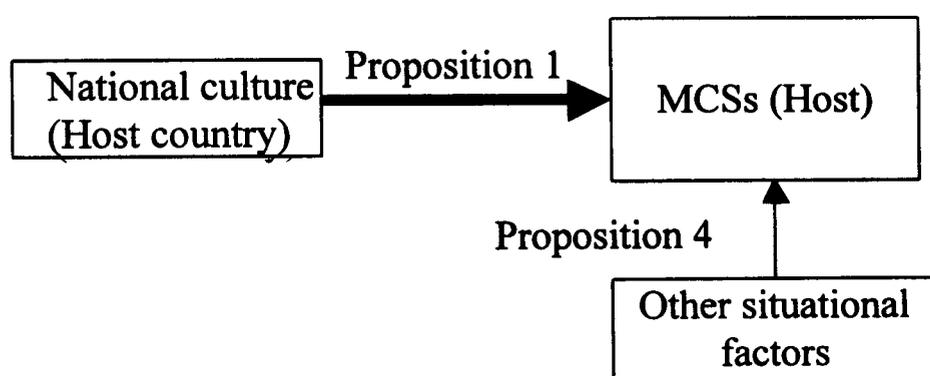
Selection of managers: This factor contains a series of main questions, such as "What is your company's policy of manager selection?" "In a foreign operation, how do you organise its operating managers? Do you consider their nationality? Is there any rule? Why?" "When your company selects managers, are cultural and age factors important considerations? Why?" and "Under what conditions, do you think the company will change a manager?" The main purpose of these questions is to appraise the extent of in-group in the selection of managers, especially in European operations.

Interviews with operations' managers

At the same time, this research used a semi-structured but, compared to interviewing the senior manager at headquarters, less open-ended approach to investigate the MCS components in different operations within a company in order to compare management control systems across different national cultures and corporate cultures.

As Figure 3.2 shows, the main purpose of the interviews is to examine propositions 1 and 4. The relationship between national culture and MCSs will be examined in proposition 1 in chapter 6. Then the relationship between local situational factors and MCSs will be explored in proposition 4 in chapter 9.

Figure 3.2 The purpose of Interviews at Operational Level



The questions (see appendix 1) were designed with regard to ten variables relating to planning, organising, evaluating, and the rewarding process within the management control system. Some relevant literature was used in the process of question design. Studies by Johnson and Gill (1993), Horngren (1994), Daley et al. (1985), Simons (1988), Milani (1975), Shields and Young (1993), Gorden and Miller (1976), Merchant (1981), Abernethy (1991), Kenis (1979), Kren (1992), Chow, Shields, & Wu. (1994), Birnberg and Snodgrass(1988), Ueno and Sekaran (1992) and Hofstede (1968) were particularly helpful in designing relevant questions. Field studies with in-depth interviews allowed the researcher to modify some propositions in the early development stage and to explore more important "How" and "Why" questions (Yin, 1989: 20; Pettigrew, 1990: 279). Each component contains from three to seven main questions. The content of the questions is broadly discussed on a component (variable) by component basis as follows:

Objective setting: A series of questions, including the determining of company objectives, developing new budgets, the extent of impact from the senior managers, participating in objective setting, and policy consideration, is included in this component.

Participation: This component contains a series of questions, relating to budget committees, participants, discussion meetings, and communication between upper and lower management.

Long-term and short-term planning: This component contains a series of questions, relating to budget time span, long-term planning, and matching short-term budgeting with long-term planning.

Decentralisation: This component contains a series of questions, relating to the decentralised decision making system, transparency of decentralisation, and independent decision-making for managers.

Formality: This component contains a series of questions, relating to documentation, budget process, written performance, and the stability of regulations.

Controllability-filters: This component contains a series of questions, relating to the evaluation criterion, the consideration of uncontrollable items, and budget control. In this regard, the extent of controllability-filters will be compared between firm's operations.

Feedback extent and frequency: This component contains some relevant questions, such as the period of management appraisals, performance reports, budget variance, and usefulness of budget information.

Contingent rewards: This component contains a series of questions, relating to the measurement of subordinates' performance, linkages between budget and financial rewards, percentage of pre-set rewards, and the relationship between performance and contingent rewards.

Group rewards: This component contains a series of questions, relating to the incentive base, bonus participants, and main factors in the system design.

Long-term rewards: This component contains a series of questions, concerning types of long-term rewards, linkage between performance and long-term rewards, and future plans about the long-term rewards system.

Based on the questions of each component, relevant themes will be built component by component in chapter 6 as a framework for the purposes of comparison between Taiwanese and European operations in each case. Different MCS patterns between the case firms will be assessed and linked with the financial control styles described in chapters 7 and 8.

Compared to participant observers, interviewers lack the first-hand knowledge of how people act in their day-to-day lives. It is difficult to sort out the difference between purposeful distortions and gross exaggerations. The researcher has the responsibility for imposing cross-checks on the informants' stories (Taylor and Bogdan, 1984: 99). Sometimes, memories are very likely to be distorted for one's self-esteem (Stern 1979: 75), and most respondents have difficulty accurately reporting

events from their past unless the events were either outstanding or recent (Emory 1980: 86). No matter whether this post hoc bias or response error happened intentionally or unintentionally, it seriously affects research validation and reliability. In this study three layers were designed for cross-checks; first, sufficient time with different unit managers to "read between the lines" of their remarks (Taylor and Bogdan, 1984: 99). Different questions were prepared to interview different functional managers, but each question was repeated at least once to different managers. If they were fabricating a story this could be probed. Secondly, to some important questions, a cross-checking interview between headquarters managers and operational managers was designed. Thirdly, this study drew on as many different sources of data as possible to check out informants' statements. In addition to interviews which can provide depth, subtlety, and personal feeling (Pettigrew, 1990: 277), cross-references with desk research and documents could provide facts but are subject to dangers of selective deposit and survival (Pettigrew, 1990: 277). If there were still any doubts, this research would continue to probe until a better understanding was reached.

3.2.2.3 Document Data Source

In addition to interviews, the research continually observed and gathered some valuable data during the field studies. Some documents can be used to add to interview data or even constitute the sole source of information for the study. The collected data were divided into three types: (1) general information: including a chart detailing organisation, an introduction to the corporation, historical documents, minutes of relevant meetings, strategy and policy documents, internal pamphlets or magazine etc.; (2) financial information: including the annual financial report, performance report samples, compensation structure, etc.; (3) rules and procedures: including the budgeting manual, decentralisation in the decision making system, feedback extent and procedure, the incentive system, etc.

3.3 Case Firms and Data Collection

3.3.1 Case Firms

There is an intentional or design component in the process of choosing and gaining access to research sites, but the practicalities of the process are best characterised by the phrase "planned opportunism" (Pettigrew, 1990: 274). All research is inevitably influenced by the beliefs and values of the researcher (Scapens, 373-4). A long term planning research activity is linked to matters of academic and

practitioner relevance, funding strategies and explicit network building to open up site options (Pettigrew, 1990: 274).

As a cost and managerial accounting teacher in a university and a consultant in a CPA firm for a long period in Taiwan, the researcher is interested in the management control system, especially for the multinational corporation. In this research, Taiwanese corporations were thus chosen as the case firms. Considering the timing and funding factors, it was finally decided to compare the corporations' MCSs between their European and Taiwanese operations.

Once the research sites were decided, many reasons influenced the choice of the information technology (IT) industry as the target industry. First, most European investments from Taiwan are information technology companies so they provide a reasonable number of case firms. Secondly, they are all private companies, compared to other industries controlled by government or dominated by monopolistic or oligopolistic concerns (Hung, 1995: 64), so objective comparison and observation of their MCS is possible. Thirdly, the Information Technology industry has already become the leading industry in Taiwan and gained third position, next to America and Japan, in the world. Global companies are easy to find in the information industry. Fourthly, comparison within the same industry is intended to eliminate differences in the industrial environment.

To make it easy to observe the operations of components of the management control system, case samples were chosen according to three conditions: (1) they offer shares for public purchase on the Taiwan Stock Exchange, (2) they have plant(s) for manufacturing or assembling in both Taiwan and Britain or other European countries, and (3) they are big global corporations. According to the above terms, only six global companies, Acer, Mitac, Tatung, Lite-On, CMC, and FIC⁴, had plants in Europe before 1995, but only the first five companies had plants in Britain. For ease of contact and access to data, the first five companies were chosen as case studies for this research, but when visits to their senior managers began, it became obvious that the scale of CMC⁵ could not compare with that of other companies. Thus, the case was dropped from the research. Finally, Tatung, Lite-On, Mitac and Acer were selected as the four case firms (Table 3.2). All ranked within the top 100 of Taiwan's manufacturing industries in 1995⁶. In addition to Acer Incorporated which has plants

⁴First International Computer Inc.

⁵ According to Common Wealth June 1996, the company was ranked 332nd in Taiwan manufacturing industries in 1995.

⁶ According to June 1996 Common Wealth Magazine, Acer Inc. was ranked 5th, Tatung Co. 8th, Mitac International 59th, and Taiwan Liton Electronic Co. 77th in Taiwan manufacturing industry; and according to August 1996 Common Wealth Magazine, four groups of Acer, Tatung, Mitac, and Lite-On were all ranked in the top ten groups among electronic and information technology industries.

in the Netherlands, Germany and Britain but is organised as a regional business unit (RBU) in the group, the other companies' plants are all in Britain.

Table 3.2 Case Firms Summary

Case firms	European operation(s)	Taiwanese operation
Tatung	Tatung (UK) Ltd.	Taipei Electronic plant of Tatung Co.
Mitac	Mitac Europe Ltd.	Hsin-Chu Plant of Mitac International Corp.
Acer	Acer Computer B.V. Acer Computer GmbH Acer UK Limited	Acer Global Inc.
Lite-On	Lite-On (UK) LTD.	Power Supplier Plant of Taiwan Liton Electronic Co.

Although there is no ideal number of cases, a balance is needed between very careful comparison and easy to generate theory. Eisenhardt (1989: 545) suggests a number between 4 and 10 cases usually works well. Likewise, Pettigrew (1990: 276) suggests that the researcher conduct no more than four to six cases. Due to the demands of this study, involving in-depth comparison of different operations' MCS within each corporation, and considering each operation independently, four case firms is a suitable number.

Once the case firms had been chosen, plans to gain access to these corporations were made. Traditionally, it is difficult to access details of management control systems in Taiwanese corporations, especially when many interviews at both headquarters and on the operational side are needed. A simple but formal written research proposal (Powell and Lovelock, 1991: 137) for a key representative was prepared each time and then the interview negotiated.

The field studies were conducted in the four case firms. This study chose not only to interview operation's senior managers for understanding the similarities and differences of MCS of each paired operation, but also to interview senior managers of the headquarters in each company in order to highlight cultural effects on leadership factors and their impact on the MCS components. This study, according to the size and product content of the European subsidiaries of each corporation, carefully selected their domestic operation as a paired sample also for the purpose of controlling relevant confounding effects of contingency variables (for comparisons between the paired samples see next chapter). All European operations are independent companies, but their paired samples contain an independent company, strategy business unit (SBU) or independent profit centre. For simplification, the term "operation" is used to cover different organisations.

3.3.2 Data Collection

3.3.2.1 Initial Visit and Pilot Work

When initially contacting the case firms, the researcher had chances to visit their headquarters, including Tatung, Mitac, Acer and CMC. Discussions with their representatives covered not only the interviewees, time, and interview content, but also their MCSs and leadership control styles. It offered opportunities to do the initial interview with those representatives, all senior managers at their headquarters. The initial interview enriched the design of the draft interview questions. After the completion of the initial research design, two companies were chosen, the subsidiaries of Tatung and Mitac at Telford, UK, as pilot and pre-test samples. During nearly two months' pilot work at their UK operations, chances arose to exchange some valuable ideas with their managers and for discussing interview questions. Finally, a series of interview questions (Appendix 1) was determined.

3.3.2.2 Field Work Interviews

After the pilot work, field work interviews across Taiwan and European countries, including Britain, Germany and Netherlands were undertaken. Over a period of six months interviews with 74 managers (Table 3.3) took place, including senior managers at headquarters and managers at their operations. Interviews (see Appendix 2) were conducted at the headquarters and each operation of four corporations, about five managers being interviewed at each site. Basically, structured samples by hierarchy and function were used, but sometimes convenient samples, even snowball samples, were included. Each interview was strictly controlled to finish within the one hour promised in the research proposal when contact was first made with agency representatives.

At the headquarters of each corporation, if possible, the preferred choice of informants came from the leader(s) (the chairman of the board of directors or the president) or both. The controller and/or accounting manager were always covered, because normally they know their management control system better than other people. In addition, if necessary or convenient interviews were covered with other senior managers willing and able to talk about their experiences and articulate their feelings.

At each operational level informants also included the general manager or managing director, operation controller or accounting manager, and divisional managers from different divisional levels. Almost all general managers or managing directors at all operations participated. The practice of field research is the art of the possible. It is necessary to exploit the opportunities offered in the circumstances

(Buchanan et al., 1988: 55), so the opportunistic approach was also used to choose suitable informants, ask relevant questions and sustain contacts in organisation.

Table 3.3 Profile of Interviews

Description	Tatung	Acer	Mitac	Liton	Others	Total
At headquarters:						
Top managers*	2	4	4	1	1	12
Financial managers	3	2	1	2	1	9
Other managers	1	-	-	1	-	2
Sub-total	6	6	5	4	2	23
At operations:						
Head or vice-head	3	6	2	3	1	15
Financial managers	3	6	3	2	-	14
Other managers	5	8	5	4	-	22
Sub-total	11	20	10	9	1	51
Total managers	17	26	15	13	3	74

* Including Chairman, vice-chairman, president, and Vice-president.

In addition to field notes, an audio tape was used in all, except some special cases, in interview. These tapes were transcribed verbatim after interview for comparative analysis. One of the keys to successful interviewing is knowing when and how to probe (Taylor and Bogdan, 1984: 96). Throughout the interviews, sensitive follow up questions were included and further questions probed for clarification of doubtful issues.

Data were continually collected from personal interviews and a variety of archival documents in the field work. Interviews can uncover more valuable documents, which in turn lead to some critical lines of inquiry for other interviews.

3.3.3 Data Analysis

A series of steps of basic data analysis was used in the research. First, because the interview tapes were transcribed verbatim, the data bases could be established for each interview. Secondly, interview data were sorted into broader themes and issues (Maxwell, 1996: 79). New data bases were built by the factors (financial control and situational factors), components of MCSs, and issues in the research. Thirdly, following the sequence of propositions in the research, systematic analyses from these data bases were used to examine the propositions. Data were rearranged as required into relevant themes selected from relevant issues.

For comparing MCSs within case firms in chapter 6, interview contents were analysed by the component of MCSs. Based on the relevant issues in each component, content lists embedding units of analysis were presented under different themes. Unlike prior scholars who used "content analysis" to count key phrases or themes (Easterby-Smith et al., 1991: 105), this research used a more open approach to data analysis. Content lists in each component were organised according to the main

themes of the questions. Some themes were compared in detail, but some in summary. The main purpose of the content lists was to find the reality, not to count the frequency of items. There were two main reasons for using this approach. First, owing to the use of semi-structured interviews in the research, the large amount of non-standard data made content analysis problematic. Secondly, a few key managers participated in the interviews in each operation, and selected managers replied to relevant questions only. The main purpose was to understand the real systems. To count the frequency seemed unsuitable in this research. For probing financial control style in chapters 7-8, except for the content lists described above, matching pattern logic, one of the most desirable strategies (Yin, 1989), was used in this research. In-depth interview data are difficult to use in determining a precise figure or position for comparison, but ranking the sequence for matching patterns between the case firms seems easier and more reasonable. In addition, the technique of cross-checking was fully used in chapter 9 to link the situational factors to operations' MCSs. Most data were cross-checked from the relevant interviews analysed in chapters 6 to 8. Nevertheless, it must be emphasised that the results are limited by the subjective judgements made by the researcher in the data ranking and classification process.

3.4 Validity and Reliability

In-depth Interviews

Qualitative interviewing has been referred to as nondirective, unstructured nonstandardised, and open-ended interviewing. Sometimes the phrase "in-depth interviewing" can be used to refer to this qualitative research method (Taylor and Bogdan, 1984: 77). By in-depth qualitative interviewing we mean repeated probing toward understanding informants' perspective on their lives, experiences or situations as expressed in their own words.

3.4.1 Validity

Has the researcher gained full access to the informant's knowledge and meaning (Easterby-Smith et al., 1991: 41)? Validity is a question of how reliably a test or instrument measures the attribute which it is supposed to measure (Easterby-Smith et al., 1991: 121). The validity can be defined as "the capacity of a test to tell us what we already know" (Bannister and Mair, 1968). Patchen (1965 see Easterby-Smith et al., 1991: 121) proposes three ways of estimating validity, including face validity,

convergent validity and validation by known groups⁷. According to Yin (1989: 40-45; 1993: 39-40), there are three tests in case study designs:

3.4.1.1 Construct Validity

Construct validity deals with the use of instruments and measures that accurately operationalise the constructs of interest in a study (Yin, 1993, p.39). Because most instruments and measures are not necessarily as accurate as desired, a common strategy is to use multiple measures of the same construct as part of the same study.

Researchers use multiple sources of evidence to build construct measures, which define the construct and distinguish it from other constructs (Eisenhardt, 1989: 542). This study uses the technique of multiple sources of evidence, including interviewing, observing documents and desk research data. The converging evidence gives confidence about the conclusion. As Yin (1993: 69) said:

"This type of triangulation is the most desired pattern for dealing with case study data, and you should always seek to attain such sources of evidence; if all sources point to the same answer, you have successfully triangulated your data."

When a pattern from one data source is corroborated by the evidence from another, the finding is stronger and better grounded. When evidence conflicts, the researcher can sometimes reconcile the evidence through deeper probing of the meaning of the differences (Eisenhardt, 1989: 541).

A second tactic is to establish a chain of evidence as each interview and each case are concluded. Within-case analysis can help investigators cope with the deluge of data. This process allows the unique pattern of each case to emerge before investigators push to generalise patterns across cases (Eisenhardt, 1989: 540). Through establishing relevant data bases by each interview and each case, the unique pattern of each case was formed and is useful to check the construct validity.

A third tactic is to have a draft case study report reviewed by key informants. A major way of improving the quality of case studies and assuring their construct validity is to have the draft cases reviewed by those who have been the subjects of study (Yin, 1989: 144). This review was carried out in this current research.

3.4.1.2 Internal Validity

Internal validity establishes a causal relationship as distinguished from spurious relationships (Yin 1989: 40). The researcher can achieve internal validity

⁷ Face validity explores whether the instrument or its items is plausible; convergent validity means confirmation by comparing the instrument with other independent measurement procedures; validity by known groups is comparing groups otherwise known to differ on the factor in question .

through the specification of the units of analysis, the development of a priori rival theories, and the collection and analysis of data to test these rivals (Yin, 1993: 40). Eisenhardt (1989: 542) argues:

"At this point, the qualitative data are particularly useful for understanding why or why not emergent relationships hold. When a relationship is supported, the qualitative data often provide a good understanding of the dynamics underlying the relationship, that is the 'why' of what is happening. This is crucial to the establishment of internal validity."

This study strove to search for the "why" behind relationships, including pattern matching and explanation-building in the data analysis. Theoretically propositions were built up and examined. Pattern matching between MCSs and leaders' financial control styles were reasonably linked. Explanations concerning propositions examination and pattern matching were fully given as possible. It is important to discover the underlying theoretical reasons for why the relationship exists (Eisenhardt, 1989: 542). This helps to establish the internal validity of the findings.

3.4.1.3 External Validity

External validity establishes the domain to which a study's finding can be generalised (Yin ,1989: 41). A researcher can achieve external validity through the specification of theoretical relationships, from which generalisations can then be made (Yin 1993: 40).

Selection of cases is an important aspect of building theory from case studies (Eisenhardt , 1989: 536). In this study research cases were selected from information companies which have similar environmental conditions. Selection of an appropriate population controls extraneous variation and helps to define the limits for generalising the findings (Eisenhardt, 1989: 537).

In this study some cultural theories and leadership theories have been tested through replications of the findings in a second or even a third neighbourhood. This replication logic is the same that underlies the use of experiments (Yin, 1989: 44-45).

3.4.2 Reliability

Will similar observations be made by different researchers on different occasions (Easterby-Smith, 1991: 41)? Reliability is defined as the absence of measurement error. A reliable instrument will measure the same object with consistent and error free results (Bailey et al., 1983: 535). It can be reliably demonstrated that operations of study - such as data collection procedures - can be repeated, with the same results (Yin, 1989: 41). If an instrument is administered to the same individual on two different occasions, will it yield the same result? The main problem with

testing this in practice is that no one can be sure that the individual, and other factors, have not changed between the two occasions. It is more common to examine 'equivalent reliability,' which is the extent to which different items intended to measure the same thing correlate with each other (Easterby-Smith et al., 1991: 121-122). While a multiple case design is more demanding than a single case, it permits induction of more reliable models (Bourgeois III and Eisenhardt, 1988: 818). A researcher can achieve reliability through the use of formal case study protocols and the development of a case study database (Yin, 1993: 40).

In this study the design of the draft interview questions came first, followed by consultation with academics and managers in the pilot interview. In the field work, all firms and informants were subjected to the same sequence of entry and exit procedures and main interview questions. In the analysing processes, similarly organised case data bases for each firm visited were created and then some data bases were developed by different variables to generalise all cases. Actually, many conclusions converged through the establishment of a series of data bases in this research. However, the limitations of the interviewed-based approach used in this research must be recognised and the results therefore treated as indicative and exploratory.

3.5 Summary

The transferability of management control systems within a multinational corporation is a highly complicated topic. It needs careful planning in order to find the reality. This chapter fully justifies the methodological method used, especially concerning the operation of triangulation.

This chapter firstly described the research design, including research approaches and methods of gathering data. It aims to offer a bridge between the theory framework and empirical research. Because the research approaches are case study and comparative method, multiple methods of gathering data are needed to test the research theory and even build the theory patterns. Secondly, some empirical practices, covering the selection of the case firms and the process of data collection, have been noted. Thirdly, issues concerning validity and reliability have been examined and evaluated.

4. Information Technology in Taiwan

- 4.1 Introduction
 - 4.2 IT in Taiwan
 - 4.3 Taiwanese IT Industry in Europe
 - 4.4 Summary
-

4.1 Introduction

Because information technology (IT) companies are used in this research, information technology in Taiwan will be described in this chapter first and then the case firms discussed in the research will be presented case by case in the next chapter.

The open IT environment and some potential successful factors such as abundant and professional highly-skilled engineers, strong entrepreneurial spirit in Taiwan, dynamic component infrastructure, and correct government policy have made Taiwan an information empire. At present, Taiwan is the third information technology country next only to America and Japan. Acer group has been listed as the seventh most powerful PC company in the world since 1994. Some information firms have become multinational companies very quickly. Despite the rapid growth of the IT industry, Taiwan has continued to expand by integrating other local sectors, such as semiconductors and telecommunications. Taiwan is likely to grow continually in the future, creating another miracle, and becoming a "technology island."

4.2 IT in Taiwan

4.2.1 Key Factors of Successful IT Industry

The following five elements are the key factors leading to the development of the successful IT industry in Taiwan:

- Open environment in the PC industry.
- Dynamic component infrastructure
- The entrepreneurial spirit in Taiwan.
- Abundant highly-skilled engineers
- Government policies

4.2.1.1 Open Environment

The open environment trend is a key factor for Taiwan's success in the world IT industry. Large companies like IBM, Microsoft and Intel establish PC standards and third parties build the infrastructure. Under the influence of open environment, the barrier to entering the industry has been drastically reduced and the role of outsourcing is prevalent in the PC technology industry. With access to standardised components and a well-defined standard architecture, a number of computer firms can work together within the "value-chain", from components, system and software to distribution. The consequence of this has been radical price competition and this leads to emerging market opportunities for original equipment manufacturers (OEM) whose advantage is on the cost side. Due to owning abundant, cheap, and highly-skilled labour at the beginning of the 1980s, Taiwan naturally became the best OEM base for big computer firms to pursue a low cost strategy.

4.2.1.2 Dynamic Component Infrastructure

Based on the excellent accumulation of experience of the electronics industry, many information companies had cultivated the ability to supply components and parts quickly by excellent production techniques, product development and improvement. The component manufacturing infrastructure in Taiwan is extremely dynamic, innovative, highly competitive, and quick to learn. This is due to wide engineering resource availability, and is helped by the fact that most essential components are designed and produced within a 50 km radius in Northern Taiwan. Within this well-developed component infrastructure, companies are able to operate on a smaller economic scale and concentrate on gaining speed in development and production.

4.2.1.3 The Entrepreneurial Spirit in Taiwan

There is a saying that Taiwanese people would rather be the head of a chicken than the tail of an ox. This means that Taiwanese people like to work for their own benefit or be their own boss instead of for a large organisation, and this entrepreneurial spirit is a major factor in Taiwan's role in the IT industry. According to Wong (1988), this strong entrepreneurial desire stems from the combination of equal inheritance of the family property in Chinese families and the belief that men are naturally equal and should attempt to realise their own potential (Pelzel, 1970, see Whitley, 1992: 203). The patriarchal character of relations in authority in the Chinese family business (CFB) is limited by the "conditional" or "rational" (Silin, 1976: 127-31) nature of employee commitment and the attractiveness of self-employment as an alternative to continued subservience in Taiwan (Tam, 1990, see Whitley, 1992: 23). Many factory workers in Taiwan view employment as merely a temporary status

before starting their own business, a view which rapid economic growth and the prevalence of small firms encourages (Deyo, 1989: 162; Gold, 1986: 89; Greenhalgh, 1984, 1988; Whitley, 1992: 156).

For the Taiwanese, work is one of the highest virtues. Most businessmen and workers jump at the chance to work longer hours and earn more money and it is common for people to work ten or more hours every day, especially if they are self-employed (Hinkelman, 1994: 129). As the integrated business model "dis-integrated", traditional big players acquire burdens that cause them to lose their market share. The most important elements for success in today's environment are speed and cost. In Taiwan, where entrepreneurial spirit is very strong, almost all businesses are small and medium enterprises (SMEs). These SMEs are run with characteristic fast speed, great flexibility, and easy adaptability to change in the information environment. Generally speaking, strategic performance in the Chinese family business (CFB) focuses on the intensive use of resources, short pay back periods for new investments, reliance on price and cost competition and a reluctance to share control or responsibility (Redding, 1990: 177-81, Whitley, 1992: 55). The critical role of family ownership and control of the CFB, together with these strategic preferences, results in a highly personal decision-making style which is very flexible and responsive to environmental change (Whitley, 1992: 55).

Businessmen in Taiwan are always searching for any opportunity, any niche in which to do business (Li, 1993: 68). They are very fast followers; as soon as an industry creates a standard, or whenever a new product is accepted by a market, they will come out with some innovation, either a new function or a major cost reduction. The key competitive weapon of Taiwanese firms is an early move in the dynamic marketplace (Li, 1993: 69). This was the main reason why Taiwanese information companies could take advantage to develop when the information market began in the early 1980s. Because of this mentality, in Taiwan there are about three thousand very active information technology export companies. TAC (Taipei Computer Association) is the biggest association with a membership of 5,000 in 1993. Through merger and fiercely competitive price cutting, some companies were forced to close their operations, but at the end of 1995 4,075 companies were still on record in the electric and electronic association of the Taiwan area¹. About 85% of them are SMEs. Because of this, Taiwan has also attracted a lot of Chinese talent from the US, the so-called "reverse brain drain"².

¹ From "ROC 1996 Information and Electronic Industry Annual Report" by the Taiwan Institute of Economic Research, p.123.

² From the speech of Stan Shih, the chairman of Acer group.

4.2.1.4 Abundant Highly-skilled Engineers

After the ruling party, Kuomintang, withdrew to Taiwan in 1949 from Mainland China, education became an important policy, especially in the basic scientific and engineering fields. Abundant scientific and engineering talents motivated many American and Japanese electronic companies to invest in Taiwan in the 1960s. More and more highly-skilled engineers left those companies and transferred to the IT industry after 1980. The high flow of engineering manpower impels rapid diffusion of technical knowledge and the result is a lot of small PC firms. Also, as Taiwan has excellent highly-skilled talents and the ability to design key components, it naturally has become a leading IT area among the Asian countries.

4.2.1.5 Government Policy

Government policy has also accelerated the development of Taiwan's infrastructure by supplementing budgets for engineering programs, funding of research institutes such as the Institute for Information Industry and the Industrial Technology Research Institute for target technology development/transfer, and establishing science-based industrial parks. The information technology industry has become a strategic industry of Taiwan's government since the early 1980s. In addition to tax incentives for investment in key segments which built up high-tech resources, the government offered several services, including special finance and training of talented personnel for information companies.

4.2.2 IT Industry in Taiwan

Business is the life of modern Taiwan. For both economic and political reasons, the Taiwanese view business with the outside world as the key to their country's growth and stability. The IT industry in Taiwan has been described by many industrial analysts and academics as fragmented, dynamic, innovative, highly competitive and quick learning (e.g. Kraar, 1994; Schive & Hsueh, 1987). Over 12 years before 1993, its growth rate exceeded more than 40% and it created today's world position. With the labour cost increasing, some companies which manufacture low-end products like monitors, keyboards, exchange power suppliers, and the mouse started gradually moving their manufacturing bases to neighbouring countries, like Malaysia, Thailand, Mainland China and the Philippines. The production value in overseas manufacturing bases already attained US\$3.003 billion and comprised 20.6%

of total production value. It will attain US\$7.880 billion and comprise 32.9% in 1997³. But over the past 10 years before 1995 the domestic information industry still maintained a high growth rate both in hardware and software industry (Table 4.1). In 1995, the production value of the information hardware industry in Taiwan already attained US\$14.156 billion, but combined with the production value in overseas bases it achieved, in total, US\$19.6 billion.⁴ The growth rate attained 35% and retained third position in the world, next only to America and Japan. How could the Taiwan information industry continually maintain fast growth? First, the market continually expands, especially in third world countries. The fashion of the Internet is also one of the important factors which stimulate PC demand. Secondly, Taiwan has faster production and lower prices than other Asian countries. Thirdly, big computer companies, especially the top ten including Compaq, IBM, Apple, Packard Bell, Dell, and NEC, continually give OEM orders to Taiwan information companies. At present the number one PC company, Compaq, purchases about 50% of its monitors from Taiwan and its notebook PCs are produced by Taiwanese manufacturers through OEM/ODM contract. It is expected that the top ten PC companies will purchase over US\$5 billion of their PC and peripheral components in 1996.⁵ Fourthly, due to the scale of expansion, better quality increases customer confidence. Fifthly, more and more information companies emphasise synergy products, marketing channels and stepping into global operations. Without a large home market, the global demand for PC applications was the major inducement for specialisation in the information industry in Taiwan. IT industry became a strategic industry and at present is a top industry in Taiwan.

Table 4.1 The Growth Trend of the Domestic IT Industry (Unit: US\$billion)

year	Hardware industry	Software industry	Total value
1986	2.134	0.178	2.312
1987	3.839	0.288	4.127
1988	5.324	0.397	5.721
1989	5.484	0.690	6.174
1990	6.149	0.699	6.848
1991	6.908	0.855	7.763
1992	8.390	1.030	9.420
1993	9.568	1.251	10.883
1994	11.579	1.401	12.980
1995	14.156	1.643	15.799

Data resource: ROC Institute for Information Industry: MIC (Marketing Information Centre)

³ From "ROC 1995 Information Industry Annual Report" by the Institute for Information Industry, 1995. 12, p.25.

⁴ From "ROC 1996 Information and Electronic Industry Annual Report" by the Taiwan Institute of Economic Research, 1996. 7, p.173.

⁵ From Macroview Weekly, 1996. 6. 26.

Among the IT products, many already lead the world (Table 4.2), such as the monitor, mother board, image scanner, mouse and keyboard. In addition, Notebook computer production in Taiwan has exceeded Japan to become the world's largest supplier since 1996 and its world market share has increased to 35%.⁶ Due to Intel's input in the production of mother board in 1995, although market share dropped from 80% to 65%, output was maintained. In addition, total image scanner sales occupied 64% of world market share, but handy-type scanner sales comprised nearly 94% (Desktop-type occupied 49%). Enjoying exceptionally rapid growth through the past 15 years, Taiwan has continued to expand by integrating other local sectors, such as semiconductor and telecommunications. Following the IT industry, at present the semiconductor industry has become another big industry in Taiwan. It is estimated that the Taiwan semiconductor industry will occupy about 8% of market share in the world in 2000.⁷ Taiwan is expected to become the top 4M DRAM producing country in 1997.⁸

Table 4.2 Taiwanese Information Products in the World

Products	1995		1994	
	Quantity (unit:000')	Market share in the world	Quantity (unit: 000')	Market share in the world
Monitor	31,216	59%	24,028	56%
Portable (notebook) computer	2,592	27%	2,057	28%
Desktop computer	4,567	10%	3,090	8%
Keyboard	32,780	65%	22,800	52%
Mother board	20,846	65%	17,545	80%
Image scanner	2,481	64%	1,663	61%
Exchange power supplier	34,320	35%	25,960	31%
Painting card	9,300	32%	8,770	32%
Network card	10,264	38%	6,120	34%
Mouse	40,904	72%	29,800	80%

Data resource: Institute for Information Industry: MIC

The analysis of production value (Table 4.3) shows PCs, monitors, and mother boards are most important items and altogether occupied 78% of product value in

⁶ From Macroview Weekly, 1996. 7. 9.

⁷ From "ROC 1996 Information and Electronic Industry Annual Report" by the Taiwan Institute of Economic Research, 1996. 7, p.125.

⁸ 1996. 4. 18 Central Daily News (overseas).

1995. PCs including notebook and desktop occupied 39%, then monitors at 30%, and mother board at 9%.

Table 4.3 Value Structure of Taiwan's IT Industry in 1995

product	value percentage
Monitor	30%
Mother board	9%
Portable (notebook) computer	24%
Desktop computer	15%
Image scanner	4%
Paint card	3%
Network card	2%
Other	13%

Data resource: ROC Institute for Information Industry: MIC

According to the analysis of brand, OEM/ODM occupied 66% of production value and own brand occupied 34% in 1995. Only a few big companies, such as Acer and Mitac have their own brands, but they still accepted lots of OEM/ODM orders. As Taiwan's information companies have accumulated relative techniques and abundant experience and enough R&D and engineering talents to support manufacturing and designing ability, many famous information companies in the world, including American, European, Japanese, and Korean big companies, all place their orders in Taiwan. Those companies which have integrated network marketing channels around the world could easily order everything they want at one time in Taiwan. As OEM/ODM suppliers, information companies bring the business a great deal of trade, but they gradually lose their own brand market. OEM production can enlarge the production scale, improve production technique, and improve quality, but too much dependence on OEM will increase the risks.

As to the area analysis, North America comprised 44%, then Europe 31%, Asia 15%, and other areas 10% in 1995. It shows North America and Europe constitute the main sales area, but as those markets are nearly full and competition is great, other areas are more and more important to Taiwan information exporters. Actually Acer have been quite successful in third world countries, including south-east Asian countries and Latin South-America, and that is why Acer ranks as the seventh PC company in the world.

In the analysis of domestic and foreign values, domestic product value occupies 72%, but foreign product value had already increased to 28% in 1995. In the past two years the increment in labour cost in Taiwan exceeded not only that of America and Japan but also Korea, Hong Kong, and Singapore. Besides, the increment in land cost and an unstable exchange rate also became serious problems.

Many IT companies are moving their production bases to neighbouring countries, such as mainland China, Thailand, and Malaysia. More than 50% of monitor suppliers, 90% of mouse suppliers, and 60% of keyboard suppliers currently have foreign plants.⁹

With continuous high growth and expansion over the past 15 years, some small information companies, such as Acer, FIC, Mitac, and Lite-On, have gradually become big groups and entered the stage of globalisation. Among them, Acer has become the national star and has topped private manufacturing companies in Taiwan since 1995. Entering the top five world brand companies in the next two years does not seem a mere dream to the Acer group. The information industry has become the leading industry of all technology industries in Taiwan. "Becoming a technology island" has been the Taiwanese government's goal for the last two years.

4.2.3 The Challenges of Taiwan's IT Industry

4.2.3.1 Lacking Manufacturing Abilities of Key Components

Although the PC industry spurred the development of a wide range of related sectors, some key components like CPUs, LCDs of notebook, HDDs and printers still rely on foreign companies. Intel dominates the global supply of CPUs; whereas, though Taiwan had overtaken America to become the largest exporter of notebook PCs after 1995, its LCD sources remain heavily reliant on the supply from Japan. The local HDD industry, too, has failed to flourish, with most of the domestic demand being imported. In PC products, key components including LCD, CPU, and HDD comprise more than 75% of production costs. Lacking key components, Taiwan's PC companies can merely earn a little from the conversion cost and it is difficult to compete with American and Japanese information companies. Besides, the domestic printer sector has been dominated by Japanese and US products, especially Japanese. In addition to hardware industries, Taiwanese software companies have acquired only a limited share of the market in the Chinese application packages and game software, leaving the system software to be dominated by US firms such as Microsoft and Lotus.

4.2.3.2 Losing the Cost Advantage

Although Taiwan's information industry continually increases its production value, its operating cost increment still exceeds the growth of production value. Dramatically increasing operating costs include production cost (land and wages), components purchase cost, patent franchise, rising foreign exchange, R&D, and international marketing. With the product cost increment of production cost, most

⁹ 1996, 7, 6 Central Daily News (overseas).

low-end product companies are gradually moving out of their producing bases to neighbouring countries. The rest of the companies must face fierce competition. However, most companies owing to small investment size, cannot undertake big R&D expenditure. As a result, they can only emphasise improvement of product design while lacking long-term planning in R&D.

4.2.3.3 Lacking Experience of Globalisation Talents

The information industry is a highly globalised industry in Taiwan. If information companies want to handle the added value from the international market, they need more international marketing talent. As most information companies' pioneers came from a technical background, they often put emphasis only on technical research and manufacturing activities, not on handling marketing channels and establishing brand image. As a result, most companies are mere OEM suppliers, producing information products for famous large companies in the world. They lose not only the long-term abundant added-value in the marketing stage but also the contact with end-consumers to understand what they need and create new products for them.

In addition, in the globalisation process, some international talent including professional managerial talent, financial talent, and law talent is also very important. How to cultivate those talents is an urgent matter in globalisation.

4.2.3.4 Weakness in Intellectual Property Rights Protection

Although Taiwan's government is already dedicated to improving intellectual property rights protection, the copying and learning of intellectual property are still very serious. Because of complicated information techniques and the lack of radical execution, it is still difficult to eliminate.

4.3 Taiwanese IT Industry in Europe

4.3.1 European IT Industry

The market value of the information industry in Europe attained 136.3 billion ECU in 1995 and it grew 5.2% more than in 1994 (Table 4.4). Compared to the 1994 growth rate (4.4%) and 1993 growth rate (2%), the European economy seems in recovery. Its main products are computer hardware and peripheral products. Its total market value occupied 34% of the world market share, next only to America 39% but better than Japan (16%). Because only 26% of European families own personal

computers, significantly less than American families 35%¹⁰, it shows the European market still has great potential growth. From the view of market value structure (Table 4.5), the German market comprised 29%, then French 17.6%, and then the British 17%.

With the coming of the European Union, American and Japanese enterprises have continually merged European computer companies in recent years. In addition, suffering from the economic recession from 1991 and the impact of competitive prices, most computer companies faced a very difficult time. Among the big four local computer companies, except for ICL (UK), other companies like Siemens-Nixdorf Information Systems (Germany), Olivetti (Italy), and Bull (France) all suffered losses in 1993 and 1994. About 60,000 Europeans lost their jobs in the information industry market. Recovery from economic recession seems still not complete.

Table 4.4 Market Value of the European IT Industry

Items	1993 1 billion ECU	1993 growth rate (%)	1994 1 billion ECU	1994 growth rate (%)	1995 1 billion ECU	1995 growth rate (%)
Hardware market	54.7	-0.1	56.5	3.2	59.3	4.9
Software market	23.7	5.5	25.3	6.7	27.2	7.5
Information service	45.6	2.9	47.7	4.6	49.8	4.4
Total market value	124.0	2.0	129.5	4.4	136.3	5.3

Data Resources: EITO

Table 4.5 The Structure of the European IT: Market Value by Countries

Country	1995		1994	
	Market value I billion ECU	Percent (%)	Market value I billion ECU	Percent (%)
Germany	39.1	29.0%	37	28%
France	24.0	17.6%	23	18%
Britain	23.2	17.0%	22	17%
Other countries	50.0	36.4%	48	37%
Total	100.0	100.0%	130	100%

Data Resources: from EITO

Most European information companies are SMEs. According to a 1993 survey, 78% of information companies hired fewer employees than 9 people, 11% of

¹⁰ 1996. 6. 6 Central Daily News (overseas).

companies hired 10 to 19 people, and only 1% of companies hired more than 500 employees.¹¹ Some famous American and Japanese companies like IBM, Apple, Compaq, DEC, HP, Unisys, NEC etc., especially IBM and Compaq, occupied a dominant position in Europe. The more important local companies are the German Siemens-Nixdorf, Vobis, and Escom, the French Bull group, British ICL, and Italian Olivetti, but most cannot compare in size with those American and Japanese companies.

At present, the more important manufacturing bases are concentrated in Britain, Ireland, Germany, Holland, Italy, and France. In particular, the British government used an excellent incentive policy through government subsidies to attract foreign investment. Many famous information companies have been attracted to invest in Britain. "Europe Silicon Valley" in Scotland and "Silicon Corridor or M4 Corridor" in the South of England have already become famous information industry areas. In 1995 British PC production volume attained 8.92 million which was almost triple German production volume and attained half the total European market volume.¹² The British growth rate of the information industry attained 7.7% in 1994 significantly better than other European countries.

4.3.2 Taiwan IT Companies in Europe

Though Europe continually suffered economic recession from 1991, due to its information industry comprising 34% of world market share in 1995, next only to North America, it is always an important competitive battlefield for information companies. Of course, Taiwan could not exclude itself from the competition. Europe, next only to America, is Taiwan's second export area for information products. In 1992, Taiwan exported almost 38% of information hardware to the European area, but with strong price competition in this area and success in third world countries Taiwan's exports to Europe grew only marginally. However, it maintained almost the same market share in its total exports (Table 4.6).

¹¹ From "ROC 1995 Information Industry Annual Report" by the Institute for Information Industry, 1995. 12, p.503.

¹² From 1996. 6. 6 Central Daily News (overseas).

Table 4.6 Market Analysis of Taiwanese IT Industry by Area

Products	1993			1994		
	North America	Europe	Other areas	North America	Europe	Other areas
Notebook PC	49.0%	29.0%	22.0%	49.0%	28.0%	23.0%
Desktop PC	43.0%	41.0%	16.0%	45.0%	37.0%	18.0%
Monitor	46.0%	32.1%	21.9%	45.7%	33.7%	20.6%
Mother board	38.2%	39.0%	22.8%	39.2%	39.5%	21.3%

Data resources: see footnote¹³

More than 80% of Taiwanese companies investing in Europe are electronic and computer companies. Most of the information companies are OEM/ODM manufacturers of European information companies, or just export their products to Europe; some companies having more business in Europe have set their sales offices or warehouses for marketing necessity, and most have fewer than 20 employees. Only a few global information companies like Tatung, Acer, Mitac, Lite-On, FIC, and CMC are relatively large scale and have manufacturing or assembly plants in the area. A factory ground-breaking ceremony was held on 19th February 1996 by Chunghwa Picture Tube Company, a subsidiary of one of Taiwan's largest electronic companies, Tatung. The owners will invest 260 million pounds, which is the biggest investment project from a foreign country, in Scotland and it is expected to start manufacturing cathode ray tubes in mid-1997 and will create 3,300 jobs.¹⁴

Most Taiwanese information companies chose their manufacturing bases or companies in Britain first, then Holland, and then Germany. In other countries, most companies are still very small.

4.4 Summary

The Taiwanese people have made excellent use of the opportunity to work to create today's information empire. The IT industry has become a leading concern in Taiwan and the dream of a future "technology island" seems possible. The development of the IT industry has already created many multinational information groups. Four case firms in this research are fully presented in the next chapter and that is the basis for further comparing their MCSs and discussing their transferability in later chapters.

¹³ From "ROC 1995 Information Industry Annual Report" by the Institute for Information Industry, 1995. 12, pp. 144-152.

¹⁴ Macroview Weekly, 1995. 11. 21.

5. Case Studies of Taiwanese IT Companies

- 5.1 Introduction
- 5.2 Case 1: Tatung
- 5.3 Case 2: Lite-On
- 5.4 Case 3: Mitac
- 5.5 Case 4: Acer
- 5.6 Summary

5.1 Introduction

Table 5.1 The Case Firms

Items	Tatung	Lite-On	Mitac	Acer
Start time	1918	1975	1974	1976
Main products	Highly integrated	Electronic components	PCs and monitor	Highly integrated
Key leader	<ul style="list-style-type: none"> • S. C. Lin • T. S. Lin (after 1942) 	<ul style="list-style-type: none"> • Y. M. Tsen . • Raymond Soong (after 1990). 	<ul style="list-style-type: none"> • C. S. Ho • Matthew Miao (after 1976) 	Stan Shih
Start-up mode	Local entrepreneur	Local partners as entrepreneurs and a financial supporter	Local entrepreneur then supported by Lien-Hua group	Local partners as entrepreneurs
Management style	More Japanese and Chinese style	More American style	More American style	More Chinese style
Corporate culture	Extremely strong	weak	medium	strong
Leadership	<ul style="list-style-type: none"> • Patriarchal style and more hierarchical. • Limited decentralisation 	<ul style="list-style-type: none"> • Separated management • Professional management 	<ul style="list-style-type: none"> • Professional management • Centralising financial management 	<ul style="list-style-type: none"> • Decentralisation • Client-server system
Operating strategy	Education-and-industry integration	Professional management	Developing strategic alliance	Continue enterprising operation
Authorisation	Low-medium	High	Medium-high	Extremely high
Risk attitude	Moderate	Moderate-conservative	Conservative	Aggressive
Ownership	<ul style="list-style-type: none"> • Controlled by Lin's family. • Employees own 20%. 	<ul style="list-style-type: none"> • Joint venture with founders, professional managers, and individuals. 	<ul style="list-style-type: none"> • Controlled by Miao's family. 	<ul style="list-style-type: none"> • Joint venture with founders, supporters, and employees. • Local touch

The research covers four case firms (see Table 5.1). Each firm has its background and management style which are very important factors in comparing its intra-operations' management control system. Integratedly speaking, Tatung puts more emphasis on system management, research and quality, and deep corporate culture;

Lite-On depends on professional management and high technology; Mitac has professional management and PC technology, but is more conservative on decentralisation, especially in financial management. As to Acer, the fully decentralising client-server system allowing its managers to take risks with entrepreneurial spirit on the basis of a common culture seems to be the basis of its success.

5.2 Case 1: Tatung

The Tatung business was founded by chairman Shan-Chih Lin in 1918.¹ The founder dedicated himself to the civil engineering and architectural industry. He managed his individual business under the motto - honesty, integrity, industry, and frugality, and earned an outstanding reputation by completion of more than 600 construction projects. In 1942 he wound up his individual business. He reserved 10% of his shares in Tatung Co. for his family and 10% for all his Tatung colleagues so that they were able to become employee-stockholders. The remaining 80% were donated to the Hsieh-Chih Association for the Advancement of Industry which appropriated funds for the Tatung Vocational School of Industry, Hsieh-Chih Publishing Co., Hsieh-Chih Scholarship, Tatung Co., and the project establishing Tatung Institute of Technology. His son, T. S. Lin was then concurrently appointed president of the School and chairman of the Tatung company. Since then T. S. Lin has devoted himself to industrial construction through the education-and-industry co-operation programme between Tatung School and the Tatung Co. In 1956, the Tatung Institute of Technology was formally established to implement the co-operation programme between education and industry.

With the educational foundation investing in Tatung Co., Tatung Institute of Technology and Tatung Vocational School owns about 12% of Tatung shares and they use the dividend to pay about 75% of general expenses.² To maintain a high standard of excellence, Tatung Institute of Technology keeps its student population at a minimum level³. It is able to provide for its students "internship" opportunities to integrate classroom theories and practical work experience at all the company's factories and offices.

Over the past fifty years and more, the inspiring figure, T.S. Lin, the chairman of Tatung corporation and the president of Tatung Institute of Technology, has been a key person in the company's development. After he graduated from Taiwan

¹ Most of the data are taken from the internal documents, company introductions, annual reports, and interviews.

² From the Tatung Magazine, August, 1995

³ There were only 2,427 students in 1995.

University, he inherited his father's business. Tatung from a small company has become a top ten big company in Taiwan. From 1969, he started to enter politics. He became the Speaker of Taipei city and of the central committee of the ruling party, Kuomintang. He is still a consultant to the president. He performed excellently and at random in the business, political, and educational areas.

He insists on his philosophy but he takes a benevolent interest in workers' concerns. He handles senior personnel and significant decisions himself. He controls the company through authorisation in the hierarchical organisation and always gives some directives in the meetings. He invites his employees to purchase Tatung stock at a favourable price and supports them in purchasing their house by a low-interest loan. He asks his employees to contribute their whole life to their job as government staff. For himself, he follows his father's lesson, the Tatung motto of "honesty, integrity, industry, and frugality." He takes a "didactic" leadership role in which he conveys to subordinates the methods by which he has achieved success. He teaches and trains his employees in a weekly seminar how to keep high quality productivity and how to manage the business. Besides, he works hard 16 hours every day, even now when nearly 80 years old and strictly keeps himself frugally. To Tatung's employees, he is omniscient, remote and morally superior.

Tatung was established in Taiwan during the period of Japanese colonisation. Its leaders accepted Japanese education and this deeply affected their operating philosophies. In addition, with long-term technical co-operation with some big Japanese companies, Tatung has learned lots of operating philosophies from them. Naturally, its management style is nearer to the Japanese spirit, but traditional Confucian thinking still deeply affects its management philosophy. The name "Tatung" means "the great commonwealth"⁴ in Chinese, and it is a dream of its chairman to pursue a Confucian ideal society. He often disseminates Confucius' thinking in his operating management course in which every student of Tatung Institute of Technology and manager of Tatung corporation has to take part. The deputy of the auditing committee said: "Tatung culture belongs to traditional Chinese Confucian culture, so we emphasise orderly work. Basically, the chairman respects each employee and all employees respect him too. We are greatly influenced by his philosophy and behaviour." Its deputy controller also said: "Tatung corporation strongly emphasises business order. There is a clear order among all employees."

Compared to other Taiwanese companies, Tatung has a strong corporate culture. The company always directly recruits high-level employees from college or university, especially from the Tatung Institute of Technology, and insists that they learn everything in the factory from the beginning; that is to eliminate their old ideas

⁴ The name comes from Confucius's "The great commonwealth of peace and prosperity."

and completely accept the Tatung culture. The deputy chairman of its auditing committee explained the critical reason:

"Because most managers came from Tatung Institute of Technology where the chairman, the president of the institute, continually educated them in the management concept and philosophy in school and corporation, Tatung culture is deeply implanted in their minds."

Tatung's management motto - honesty, integrity, industry, and frugality is continually cultivated in every employee's mind. The chairman with patriarchal leadership pursues the highest ideals of truth, perfection, beauty, and sacrosanctity, and aims to carry out obligations to colleagues, shareholders, and banks⁵.

As regards business policy, basically, the chairman has a strong mission to follow government policy and shoulder his share of social obligations. Tatung was a pioneering company in industrial equipment and home appliances before 1980. Passing through the Chungshan North road of Taipei city, everyone still can see a big slogan, "developing industry for the country", on the roof of Tatung's headquarters office. With the government policy of encouraging IT, Tatung started to transfer its business focus on information products from the early 1980s. T. S. Lin expended substantial money on R&D, no matter how much the short-term benefit, but emphasising only long-term strategy. One special case was investing in Chunghwa Picture Tube Company in 1970. Although the company had continually suffered losses before 1986 and other partners like RCA all gave up the business, Lin insisted on continuing with investment. Now the company has become one of the most profitable companies in Taiwan and the biggest picture tube company in the world. In addition to the picture tube, the monitor is another important product of the company. At present Tatung is actively stepping into the semiconductor industry and a new semiconductor company investing nearly NT\$0.8 billion will start production in 1997.⁶ A new network technology company owning NT\$0.1 billion capital will also be set up to support the group's marketing service and administrative efficiency.⁷ At the moment Tatung information product value already exceeds more than 70% of their total product value.⁸ In effect, Tatung has become an information company.

On operating philosophy, Lin persists in stable and long-term operating management principles. Since its establishment, Tatung has adhered to the management principle of "education-and-industry integration"⁹ and research-and-

⁵Quotation from Tatung managerial objective in the reception office of Tatung UK Company.

⁶From 1996. 9. 14, Economic Daily News.

⁷From 1996. 7. 27 Economic Daily News.

⁸From Management Magazine, No. 258, December, 1995 and according 1996. 7. 29 Central Daily News (overseas) the precise ratio is 67.4%.

⁹The education-and-industry cooperative programme between Tatung Company and Tatung Institute of Technology was conceived and created by the founder Chairman Shan-Chih Lin in 1941.

development, management-labour unification for achieving autonomous management of industry; creating and sharing profits with customers; social investment and publicly-owned company.¹⁰ Through education-and-industry integration, Tatung could continually contribute to research and development for the past fifty years and it has to date innovated over 300 products.¹¹ Its production strategy always emphasises high quality, as the chairman said that quality is the best advertisement¹². Tatung continues to pursue its goal in industry and to focus on product design and development, quality control, and system management.

The chairman is a patriarchal and paternalistic leader. Even though the corporation already has the system of profit centres and is basically decentralised in decision making, all significant decisions need to be sent to headquarters for approval. The headquarters plays a strong role in the whole management system. Headquarters directly controls all important functions including finance and accounting, personnel, internal auditing, purchasing, and some marketing and sales activities. Its deputy controller said: "Tatung's employees accept instructions from senior management and they have a strong mission to follow the instruction." One of its managers also described the situation:

"We have relatively clear decentralisation in decision making between headquarters and centres, but the whole corporation operating policy is still handled by the chairman and significant decisions still have to be made by the chairman."

On risk attitude, Tatung seems to maintain neutrality, being neither too aggressive nor too conservative. They set their plan according to the economic environment, marketing situation, and industry conditions. They emphasise both short-term projects and long-term projects, but owing to its huge organisation, each centre cannot easily make its decisions independently, so "it is impossible to make decisions quickly and speed of operation is not good."¹³ This may be a reasonable explanation why Tatung is unsuccessfully developed in the PC area.

Passing over 50 years of struggle and expansion, Tatung controls more than 30,000 employees around the world and more than 170,000 stockholders, a really "public" company. Tatung owns almost 40 investing companies and has become a big group. Its group achieved NT\$119.4 billion revenue and NT\$136.8 billion total assets in 1995. Its branches and subsidiaries are scattered around the world. Tatung products and services exist almost everywhere. As to the ownership, as well as having nearly 170,000 stockholders, its employees own altogether almost 20% of the shares.

¹⁰Quotation from the 1994 Tatung annual report.

¹¹ From the interview with the chairman T. S. Lin of Tatung group.

¹²Quotation from the interview with the deputy controller.

¹³Quotation from the interview with the chief accountant of Tatung Electronic Plant.

However, Lin's family still essentially controls the group through owning shares, by schools, investment companies, and retaining family members. At present, Tatung is a real employees' company, a social public company, and a global multinational company. But sometimes the chairman still needs to show concern for his family interests and he prudently controls the group operations, such as gradually arranging for his five sons to take critical positions in the group and further appointing them and his first daughter in law as directors of the board¹⁴. The colour of family business is still very deep.

There are many subsidiaries under the Tatung Company, the parent company. Among its investing companies, Chunghwa Picture Tube Ltd has been a most profitable company in Taiwan's information industry in the last five years and at present it is number one picture tube manufacturer in the world. In 1995, its revenue was ranked 29th of the manufacturing companies in Taiwan and it will be a publicly listed company in 1998. Other important companies are Taiwan telecommunication Industry Company, Forward Electronics Company, Tatung Fujitsu Company, and Tatung OTIS Elevator Company (see Appendix 3).

In this research, the profit centre of Electronic Plant, which won a Prize for "Zero Defects" from IBM in 1985, was chosen as an independent operation within the Tatung Company, to compare with Tatung (U.K.) Ltd., because both plants have a similar environment and scale. Their main products are monitors and colour television, but monitoring products comprise more than 70% of their production value.

5.3 Case 2: Lite-On

In 1975, a group of engineers from Texas Instruments corporation in Taiwan¹⁵ including Raymond Soong and Y. S. Lin set up Taiwan Liton Electronic Co., Ltd. with the financial support of Y. W. Tsen, the former chairman of the Lite-On group. It is the leading company and was the start of the Lite-On group.¹⁶

From 1975 to 1985 Taiwan Liton Electronic Company concentrated on its LEDs products, but with the development of personal computers it started to produce power suppliers for the PC industry in 1985. Due to continual growth, Taiwan Liton became a publicly listed company in 1983. It is currently divided into two business units: the Opto Division and the Power Conversion Division. With twenty years experience in the optoelectronic industry, Liton of Taiwan has become one of the world's leading developers and manufacturers of high-performance LED

¹⁴ From 1996. 6. 7 Economic Daily News.

¹⁵ Texas Instrument planned to drop the LED products in 1975 (1996. 9. 13 Taiwan Daily News).

¹⁶ Most of the data in this section comes from Lite-On Group Profile, annual reports, and interviews.

optoelectronic products for a wide variety of computer, communications and consumer applications. The company has also built up a strong presence in the international computer peripherals market through its Power Conversion Division, which produces a wide range of reliable power supplies for use in computer and communication equipment.

To achieve its goal of complete customer satisfaction, Taiwan Liton implements a stringent Total Quality Management programme which covers all aspects of its operations, from product development to manufacturing and after-sales service. "Product quality always number one" is the operating philosophy of the Lite-On group.¹⁷ At present, all their plants have been awarded ISO-9000 international quality certifications. Its efficient infrastructure enables the company to deliver high quality products at extremely competitive prices. Its employees number almost 1,200 and the company has production facilities in Taiwan, Malaysia, and Britain and contract manufacturing plants in Mainland China and the Philippines. In addition, to providing closer support for its customers, the company has established a global distribution and service network, including branch offices in Europe, the USA, Hong Kong, Japan, Singapore, and Korea, as well as a team of carefully selected agents and distributors in over 17 more countries. At present, famous information companies, like IBM, NEC, Compaq, and Digital, are all important customers.¹⁸ Over the past twenty years the company has always been profitable and its rate of return based on shareholders equity fluctuated between 15% and 20% over the past three years (see Appendix 4). It was and will continue to be a very successful company.

In over 20 years, the Lite-On group has become a world leader in the design and manufacture of a broad spectrum of cutting-edge products, from sophisticated electronic components to state-of-the-art computer peripherals, and has built up a global network of manufacturing, service and distribution facilities. At the same time, the group has successfully diversified into such areas as real estate development and financial services. Because the philosophy between Soong and Tsen was so different and Tsen had a financial problem in the late 1980's, Raymond Soong took over from Tsen as the group chairman from 1990.

As the inspirational figure, the chairman actively devoted himself to business operations and improved the group image. In addition to continually developing the group's technical advantages, he stressed the importance of global manufacturing and global service. At present the group's manufacturing bases are scattered around the world including Taiwan, Thailand, Malaysia, Mainland China, America, Mexico and Britain. The group established a good manufacturing-base setting its manufacturing

¹⁷ Quotation from the interview with the president of Taiwan Liton Co.

¹⁸ From 1996. 9. 6 Economic Daily News.

plants in Asian countries in previous years to produce goods at lower cost, so that the group quickly increased its revenue and profits in the past three years. Today, the group companies deliver goods and services ranging from optical products, computer peripheral products, electronic components and communications products to real estate investment and development, and building management. At the moment, the LED (dual) division is number one in Taiwan and within the top 6 in the world; the multi-power supplier division is number two in Taiwan and within the top 10 in the world. However, in desk-top PC it is the number one power supplier company in the world¹⁹; the rubber products division for computers and communications is number one in Taiwan and in the top five in the world; the computer keyboard division is number one in Taiwan and number three in the world; the colour monitor section is number three in Taiwan and number five in the world; and the CIS section of Dyna Image Corporation is number one in Taiwan and the world.

Lite-On was set up by a group of engineers from Texas Instrument Corporation including the present chairman Raymond Soon in 1975. With the business growth, the group continually absorbed more talent from that company. They learned lots of management concepts from American companies, as its president described:

"Although the company is a Chinese company, we adopted the multinational management system from American multinational companies. We enforce the basic system and some disciplines from those companies, but we adopted only their operating approaches and operating concepts and we still leave some management space for overseas subsidiaries."

Although Lite-On still has a motto, "integrity and honesty, excellence, and innovation", and it strictly adheres to the same shared philosophy of "delivering high quality products and services that meet the needs of our customers²⁰", basically its top management emphasises a belief in a rational management theory more than shaping a strong corporate culture. Its president expressed his view about corporate culture:

"I think a so called theory of management will show fewer cultural factors if it is to become a global bench mark. If the people we sent to overseas operations had a strong mission, hoping to get the expected results quickly, the results would be negative. Sometimes, weak corporate culture is more helpful to the development of a multinational corporation."

They keep an open mind about management, as its president said: "I emphasise that business heads of my company must be reasonable, opening their mind to listen to others' opinions... There is a strong desire for learning existing in our company and it is our cultural characteristic."

¹⁹ From 1999. 9 6 Economic Daily News.

²⁰ Quotation from 1995 Lite-On Group Profile.

The managing director of its British operation also said: "Taiwanese headquarters do not ask us to follow their corporate culture....We try to adopt their culture more here because we are owned by them."

"Lite-On slowly progresses in its professional management system."²¹ Lite-On appreciates the need to study constantly and implement new management techniques and strategies that will allow them to make their operations even more efficient, enable them to improve quality, reduce costs, and upgrade productivity.²² At the moment the group emphasises state-of-the-art technology, product quality, continuous product innovation, and global manufacturing and global service under professional management. The group has achieved this position not only by providing high quality products and services that satisfy the requirements of customers, but also by fostering an entrepreneurial and risk-taking culture that has allowed them to take full advantage of new business opportunities arising from changes in technology and the global economy.²³

The group currently operates in 22 countries through 26 offices and 27 manufacturing facilities, and has over 11,500 employees (35% in Taiwan). In 1995, the group attained NT\$37.4 billion in sales and NT\$23.7 billion in total assets.²⁴ The group has achieved this position not only by providing high quality products and services that satisfy the requirements of their customers, but also by fostering an entrepreneurial and risk-taking culture that has allowed them to take full advantage of new business opportunities arising from changes in technology and the global economy. Most of their companies were built after 1987, but they became very successful within a short time, such as the Lite-On Technology Corporation, which after only six years history, became one of the top 40 manufacturers in Taiwan in 1995. Professional management is another important characteristic in Lite-On. As its chairman said: "The information industry is a highly technological industry. The company needs to hire professional experts to do professional matters."²⁵ Within the framework, each company operates independently, without mutual control, but as a part of the synergy of the group and sharing the market channels and overseas outlets.²⁶

Because of the diversification of products and services, each company or SBU in Lite-On enjoys adequate space for decision making. To foster a dynamic and entrepreneurial culture that responds rapidly to changes in the high-tech market place, the group strives to empower employees fully and give member companies a high

²¹ Quotation from the interview with the deputy controller.

²² Quotation from 1995 Lite-On Group Profile.

²³ Quotation from 1995 Lite-On Group Profile.

²⁴ From Common Wealth Magazine, 1996 August.

²⁵ From 1996. 9. 13 Taiwan Daily News.

²⁶ From 1995. 8. 17 Financial Daily Information.

degree of autonomy in their operation.²⁷ Within the Lite-On group, each member company operates independently and without mutual control but as a part of the synergy of the group, and sharing market channels and overseas points.²⁸ In Taiwan Liton Corp., each manager according to his management level has different powers of authorisation, and if the subsidiary is directly subordinated under the president (not directly reporting to each SBU) then its manager enjoys more decentralisation.²⁹ However, as the group always emphasises harmony and its scale still cannot compare with other big corporations, the authorisation still has some limitations, as its president said: "The system is stable in the long-term, but you need to consider what is feasible in present reality."

As to risk attitude, Lite-On is a little conservative. The group always chose to invest in those proposals which needed not too much money but provided a satisfactory rate of return of investment. Chairman Soong says: "The group's financial position still can not compare with many big financial groups, so we cannot go too fast. For example investing in DRAM, a project normally needs NT\$20 billion, and can only produce \$1 output per \$1 investment, but opto-semiconductor is more efficient and it can produce \$1.5 output per \$1 investment."³⁰ He continued: "The group has always been very successful working on the present basis. Then we continually seek more broad strategies. This manner of conservative success is the main reason why the group showed no deficit in the past 20 years."³¹ However, talking of product quality and development, the chairman confidently and aggressively said: "The group's total investment will attain NT\$30 billion and the revenue will attain NT\$100 billion in 2000. For continuing growth, each manager of a Lite-On business sets the products' objective as being in the top three in the world, at least in the top five."³² As to overseas investment, the group always considers the political risk very prudently, especially investment in mainland China.³³ The president of Taiwan Liton Corporation also said: "We keep 15% to 20% of rate of return of investment per year as our target, by which we can sufficiently motivate our employees and shareholders." The corporation kept about a 15% stable growth rate of turnover in the past few years.

As to ownership, since its financial supporter Y. W. Tsen was enforced to leave the Lite-On group, it lacks strong shareholders. Like Taiwan Liton, its individual holders of shares are over 70%, and the total share of the directors of the

²⁷ Quotation from 1995 Lite-On Group Profile.

²⁸ Quotation from 1995. 8.17 Financial Fast News.

²⁹ Quotation from the interview with its controller.

³⁰ Quotation from 1995. 6. 9 Economic Daily News.

³¹ Quotation from 1995. 6. 9 Economic Daily News.

³² Quotation from 1995. 6. 9 Economic Daily News.

³³ From 1995. 7. 13 Industry Business Daily News.

board is only 10.43%.³⁴ In addition, except for a small percentage mutual holding share within group companies, each company is basically independent. There is no group headquarters and each company is managed by its board of directors and president. The management core, and board of directors, unless they now increase share percentages by relevant group companies, need to get support from their employees and shareholders.

Since the Lite-On group was formed in 1975, it has become one of the most successful international conglomerates based in Taiwan. With two major business units (Table 5.2), Electronics and Information, and Investments, the Lite-On group is a truly global enterprise that has built up a world-wide reputation for its commitment to excellence in leading-edge product development, advanced technologies, efficient manufacturing, and responsive customer service. The group has seven main companies in the electronic and information business and three main companies in the investment business and cultural activities. Among them (see Appendix 3) there are three publicly listed companies including Taiwan Liton Electronic Company, Silitek Corporation, and Lite-On Technology Corporation; Dyna Image Corporation also offered its stock on the counter market; also, Lite-On Power Semiconductor Corporation entered the top 1,000 manufacturing industries, and Strong Electronic Co., Ltd. and Lite-On Incorporated entered the top 500 service industries in Taiwan in 1995.³⁵ According to the estimate of the group chairman, the group revenue would achieve NT\$130 billion and all products will be in the top five in the world in 2000.³⁶ More and more facilities would be placed in overseas countries and actually its production value abroad has already exceeded domestic facilities since 1994. With the continuing trend, Lite-On needs to globalise more quickly for optimal global production and marketing, but from an integrated view, most of the Lite-On group companies are very young companies and seem to have great potential energy and power, and of course the group will be a great shining star in the future.

In this research, for easy comparison with the management control system of Lite-On Limited, a subsidiary of Taiwan Liton in the UK, the Power Conversion Division, and a business unit of Taiwan Liton, were selected. Both operations belong to Taiwan Liton, products are all power suppliers, and their size is also similar.

³⁴ According Taiwan Liton 1995 Annual Report.

³⁵ From Common Wealth Magazine, 1996 June.

³⁶ From 1996. 5. 25 Economic Daily News.

Table 5.2 Lite-On Group Organisation

Company	Start year	Rank in 1995*	Main product
Electronic and information business unit			
Taiwan Liton Electronic Co., Ltd.	1975	Manufac. 77	LED optoelectronic products & power supplies.
Silitek Corporation	1978	Manufac. 311	rubber products for computer and communication, keyboard, and scanner products
Lite-On Technology Corp.	1989	Manufac. 40	monitor
Dyna Image Corporation	1990	Manufac. 628	semiconductors and modules for advanced image processing applications
Lite-On Power Semiconductor Corp.	1991 from Silitek	Manufac. 653	power semiconductor devices
Lite-On Inc.	1987	Service 316	multi-layered printed circuit boards
Strong Electronics Co., Ltd.	1995	Service 448	electronic components sales agent for leading international brands.
Investment Business Unit & Cultural Activities			
Silport Investment Corp.	1987	-	real estate development and security service and system
Dyna Investment Co., Ltd.	1989	-	real estate development and financial service industry
Lite-On Cultural Foundation	1993	-	promoting charitable activities, supporting the healthy development of children, and taking care of corporate culture.

* From 1996, June, Common Wealth Magazine

5.4 Case 3: Mitac

Mitac, one of the leading computer companies in Taiwan, markets and services a wide range of computer products.³⁷ Founded in 1974³⁸, Mitac initially introduced microcomputer technology to Taiwan, contributing to the building of the island's high-tech industrial foundation. In the early 1980's, Mitac was number one computer company and always took a pioneer role in the initial information stage in Taiwan. In the later 1980's Acer jumped and replaced Mitac as the number one computer company. Mitac is still a PC giant in Taiwan, second only to Acer but bigger than FIC.

At the moment the Mitac group's business has expanded to include not only manufacturing, but also system integration, distribution and other services. The group now employs 3,300 people working in a wide range of business. The expansion in its

³⁷ Most of the data from "The story of Mitac" by Business Week, C. M. Tang, company introduction, newsletter, and annual reports.

³⁸ Mitac was created by C. S. Ho, the group vice-president.

workforce is matched by the growth in consolidated revenues which reached NT\$37.8 billion in 1995 an increase of about 73.6% on 1994. The members of the Mitac group are able to draw not only on the formidable resources of the group itself, but also on the Lien-Hua group, an investor and affiliated conglomerate. Together, the Mitac and the Lien-Hua groups provide a range of financial, technological and manpower resources that support the business activities of all member companies. Altogether the Lien-Hua and Mitac group attained revenue of NT\$47.5 billion in revenue and NT\$39.3 billion in assets in 1995.³⁹

Mitac International Corporation originally belonged to a division of Mitac Inc., and it became an independent company with NT\$0.02 billion capital in Hsin-Chu Science Park at the end of 1982. At present its capital attains nearly NT\$4.4 billion, about 220 times of the initial capital. After Mitac International became a publicly listed company in 1990, with over-expending and recession in the information industry the company suffered serious losses until 1992. With enterprising re-engineering from 1991 to 1993 through a modularised manufacturing system, re-organising, establishing a global net-work organisation managing through the network to handle production and marketing, increasing the OEM/ODM ratio, and strict financial control, the company has become a profitable company again since 1994. According to the combined financial figures (see Appendix 4), its sales grew by 45% in 1994 and 89% in 1995. Due to forming a strategic alliance with Compaq, the top PC company, it is expected that the company will maintain high growth in the future. Now it owns three main product lines in the company. According to the actual 1995 figure, its desk-top PCs comprised 56%, notebook PCs 21%, and monitors 23%. In total its combined sales attained NT\$28.2 billion, and among them own brand occupied about 42% and OEM/ODM occupied the rest. With its exceptional product quality, world-class design and engineering expertise, and large and flexible manufacturing capacities, Mitac International has been highly successful as an OEM/ODM partner for major computer firms around the world. The company owns big OEM/ODM customers and at present, according to its policy, they only accept the top 20 PC companies, especially Compaq and IBM. According to 1995 statistical data, the top three OEM/ODM customers already occupied 39% of the whole company total combined sales. At present it owns assembling facilities in Taiwan, Mainland China, Australia, Britain, and America. In addition, Mitac International's manufacturing capacities are complemented by a world-wide marketing reach, with ten overseas subsidiaries and over 70 distributors in more than 60 countries. At present the company employs nearly 100 MIS engineers responding to its so-called "global logistics management."⁴⁰

³⁹ From Mitac internal report. Its figures differ from those reported in 1996 August Common Wealth Magazine.

⁴⁰ From 1996. 8. 27 Financial Daily Information.

Compared to the other three firms, Mitac adopted more of an American management and philosophy. Its spiritual figure, chairman Matthew Miao, went to America when he was in his teens. He grew up in America, and worked in the American Intel company for many years. In addition, most of its senior managers are more or less affected by the management of American computer companies.

As to the Mitac corporate culture, its chairman said: "Authorisation, discipline, and transparency are our important aims." To attain those purposes, they developed a network organisation. The chairman explained:

"The network organisation is just like the client-server framework in fashion. Each subsidiary can not only develop its independent operating function, but can also quickly and correctly exchange mutual information."

He said further: "The key point in developing the network organisation is one layer management." So-called one layer management considers the most important thing is completely open information. Through the integration of computer system and telephone communication facility, each employee can directly and quickly transfer information to anyone. The company operates the E-mail system. He said: "We input all information into the network system and whoever handles the greater amount of information has the greater power." For communicating necessary information, they develop the common protocol communication language. The chairman said with satisfaction: "Through the mail system, our organisation becomes more mature, because each manager knows whom to mail, when to mail, and how to mail. Besides, they know who needs copy. For simplifying the use of the system, we also design some easy format documents." Under the network system, "no communication, no promotion" has become another Mitac slogan. The president of Mitac International thought the network system could give Mitac new life and he emphasised: "To correct employees' concepts is not so easy. For popularising one layer management, I encourage employees to have the bravery and habit of reporting independently on their supervisors through the computer network, because in the new organisation, class consciousness should not hamper the information flow!⁴¹" For emphasising the discipline over overseas operations, as well as traditional financial reports, they design a "BEPaid" report⁴² to handle critical strategic factors. It can offer the group a self diagnostic system checking their own health any time. In addition, they have another HOT slogan, that is honesty, optimism, and team work. The chairman especially emphasises team work and he said: "If an operation has a good team of sales, technical, and financial managers, then the operation could be successful."

⁴¹Quotation from "The Story of Mitac".

⁴² "BEPaid" report is designed as a global report in Mitac. "B" represents billing, "E" represents expense, "P" is profit, "A" represents accounts receivable, "I" is inventory, and "D" represents debt.

Mitac's operating strategy succeeded excellently and produced abundant financial benefits, such as the selling of subsidiaries, mergers and alliances, especially alliances with famous companies. Its vice chairman said: "We are moving from being technically-oriented into being marketing-oriented, and now we are stepping into being financially-oriented."⁴³ In 1985, the group sold its subsidiary, Kanhai Computer Company, an agent of Digital mini-computer, to the American Digital Company. The group made huge profits and the chairman said: "It is our success that a big foreign company could spend quite huge amounts of money to merge with a small company in Taiwan." On strategic alliances, due to excellent language ability and daring, the chairman started to negotiate and cooperate with some famous companies, such as Britain's LEX Group, American Westinhouse, Lockheed Martin, General Electronic Corporation, Intel Corporation, Compaq Corporation, and other Taiwanese big companies or institutes. In addition, for the purpose of global marketing and leading technical advantage, the group also participated in investment in or merged with lots of American companies. The chairman is nicknamed "Mr. Joint-Venture". He said: "Using limited funds results in unlimited business."⁴⁴ This describes how he strives to build international alliances. His great global view is "All around the world is our warehouse and laboratory."⁴⁵

Compared to Acer group which puts greater emphasis on volume-orientation, Mitac group actually owns different technical excellencies. Mitac offers more multiple informative services, especially in software, and it has the ability to integrate different techniques. It made its reputation by providing leading-edge products that also meet customer requirements, and will continue this tradition in the future.⁴⁶ They are dedicated to meeting the full range of needs of their customers. "To get customers' trust is our pride and our responsibility" has become a slogan in Mitac. The second key to ensuring the Mitac group's continuing success is a strict focus on those areas in which it can provide the most value to its customers.⁴⁷ The aim of each member company is to develop competitive advantage by developing its special areas of expertise. Furthermore, the operations of these strongly-focused companies are coordinated so that powerful synergy-based complementary strengths can be achieved.

Mitac always decentralises decision making step by step. Its chairman said: "We keep on changing our corporate culture. At first we used a centralised system but decentralised by and by. We encourage creation but emphasise discipline. All information must remain open." Its vice chairman, the group founder, also said: "We

⁴³Quotation from "The Story of Mitac", Z.M. Tan, July, 1, 1995.

⁴⁴Quotation from "The Story of Mitac", Z.M. Tan, July, 1, 1995.

⁴⁵Quotation from "The Story of Mitac", Z.M. Tan, July, 1, 1995.

⁴⁶From "The profit of Mitac Group."

⁴⁷From "The profit of Mitac Group."

are slowly becoming decentralised in decision making: most branch companies developed from a segment or profit centre to a company." He described the development of the leadership framework as follows:

"In the past, the decision system was a top down line approach, from chairman, vice-chairman and then to the president. In other words, that is a design in which the top management core complements the professional managers, but I realise the future growth of Mitac must be built on the framework of group leadership. In that situation it can produce continuing energy.⁴⁸"

In 1994, the decision framework of the Mitac group entered the new area of group leadership. The group was split into three subgroups and each subgroup had a professional president. The chairman Miao, the big boss, still directs the management philosophy of the whole business group; the vice-chairman handles the future development strategic planning; and the president of each subgroup is really responsible for routine operations within the sub-group company.⁴⁹ Under the new framework its president of Mitac Inc. said:

"Overall, from the view of organisational development, the group has more decentralisation, otherwise the organisation couldn't be developed. The group puts more emphasis on localisation. Our philosophy is looking for the best management approach from the individual company, so obviously variances have already appeared."

Mitac has a three-pronged management strategy for ensuring continued growth to propel it into the top ranks of the global information technology industry. The three elements of Mitac's strategy are technology, business focus, and globalisation. Mitac made its reputation by providing leading-edge products that also meet customer requirements, and it will continue this tradition. On business focus, the member companies of the Mitac group work to identify those areas in which the group can provide the best value to its customers and then allocate resources accordingly. The aim is for each member company to develop competitive advantage by developing its special areas of expertise. Furthermore, the operations of these strongly-focused companies are co-ordinated so that a powerful synergy based on complementary strengths can be achieved. Globalisation is the only way to ensure that the group continues to thrive in the ruthlessly competitive information technology industry. Although the group is already a global enterprise, well-established in all the world's major markets such as the USA, Europe, and Asia Pacific, Mitac will continue this kind of global outlook, solidifying its position as an international vendor of information technology.

⁴⁸Quotation from "The Story of Mitac".

⁴⁹From "The Story of Mitac," Z.M. Tan, July, 1, 1995.

On risk attitude, the group is more conservative. Because Chairman Matthew Miao came from a traditional business family, his father always taught him to "keep conservatism foremost in running a business." He said:

"With my background I consider the risks very much. The total risks in business (market) multiply, so we do not need additional financial risk. Because our industry already involves a big business risk, we need to decrease our financial risk."

In 1985 the American ITT company gave a big order (OEM) to Mitac. Mitac faced whether to enlarge greatly its production scale or to keep a conservative operation. Finally, they accepted only part of the order according to their maximum capacity and transferred the rest of the order to Acer company. Mitac and Acer shared the risk. The Acer company took that excellent opportunity, becoming a big company within a few years. Chairman Miao said: "From the final result, we regret we did not go quickly when we could do, but you know we cannot fail." Facing the high growth PC industry, he confessed his conservative manner and said: "Acer is more aggressive than us. We are more conservative. We keep to stable growth even when we have a big market. We keep the growth rate under 100%, but the global strategy is the same as Acer's." He remained prudent and said: "It is unbelievable that a company grows 100% per year! Under a rapidly enlarging situation, the company may suffer great risk due to a small event at anytime." Owing to their different risk attitudes, Acer and Mitac's marketing strategy on area is quite different, as Miao said: "Area development strategy is quite different. Acer develops strongly in third world countries, but we focus on developed countries, especially in English-speaking countries...We tread carefully in third world countries, because we are concerned about the risk, especially political risk." As a result, Acer developed faster than Mitac, but the chairman said: "If we were to start again, we would still choose our own way."

With regard to ownership, Miao's family essentially controls the group through their relevant family companies and family membership. Mitac International individual shareholders account for only about 50%, and its seven directors of the board hold 36.5% of the total shares.⁵⁰ The chairman, Miao, is a totally professional expert in the PC industry and management area. He has excellent management talents and uses many modern management concepts and systems from big American companies, but sometimes he still needs to be concerned with his family interests, which enforces him to take more conservative strategies, especially in financial matters. Besides, most of his senior managers perform solely as professional managers and hold only a small number of shares, so most of them feel they are still like an employee. However, some excellent, aggressive, talents left the company in past years.

⁵⁰ According to 1996. 7. 10 open explanation manual for increasing capital.

The group is now represented by more than 25 sales and marketing offices world-wide, with over 120 resellers and distributors in 95 countries supplying Mitac products. Its member companies are more than 40 around the world and among them the core companies are Mitac Inc. focusing on system integration, Mitac International Corp. focusing on system manufacturing, and Synnex Technology International focusing on distribution activities. Among them Mitac Inc. is like a parent company, and Mitac International and Synnex Technology International are publicly listed companies. After group re-engineering, in 1994 Chairman Miao decided on further decentralising these companies presidents. At present three core companies all own many subsidiaries and have their own sub-headquarters, and their presidents will gradually develop different management styles and operating directions. Besides, the group still owns Synnex Information Technologies in America and Getac for defense and aerospace electronics (see Appendix 3).

In this research, the management control systems of Mitac International in Mitac Europe Limited and Mitac Hsin-Chu plant were compared. The Hsin-Chu plant, the Taiwan manufacturing base, now owning three product business units, was established at the end of 1982. Mitac Europe Limited, the British manufacturing base, was built at the end of 1988 and started its assembling facility in 1993. Due to its strategic alliance with Compaq, Mitac Europe continually expanded its capacity to cope with the PC demand from Compaq, and its sales increased from 37.9 million pounds to 110.5 million pounds, increasing roughly 192% in 1995. The increasing trend will continue in the future, and according to estimation, after its expansion it will jump into the top five PC manufacturers in Britain.⁵¹ Both operations are under the umbrella of Mitac International, and all have similar products.

5.5 Case 4: Acer

The Acer Group was founded by Stan Shih in 1976⁵² as Multitech International Corporation, with registered capital of NT\$1,000,000 and 11 employees as a trade agent of micro-products and relevant components.⁵³ With the transformation from a trade-oriented to a manufacturing-oriented firm, Acer Incorporated was established at Hsin-Chu Science Park with a capital of NT\$10 million in 1981 for producing universal microprocessor development systems, Chinese computers, and synthesising boards and systems for computer language. With strong demand for

⁵¹ From 1995. 3. 15 Economic Daily News.

⁵² Stan Shih left Qualitron Industrial Corporation because the family members who own the prosperous company starved Qualitron by diverting its capital to shore up their other enterprises.

⁵³ Most of the data from "Me-too Is Not My Style" by Stan Shih, Compliments of the Acer Foundation; Acer profile; Collection of Stan's speeches; Acer news; annual reports; and interviews.

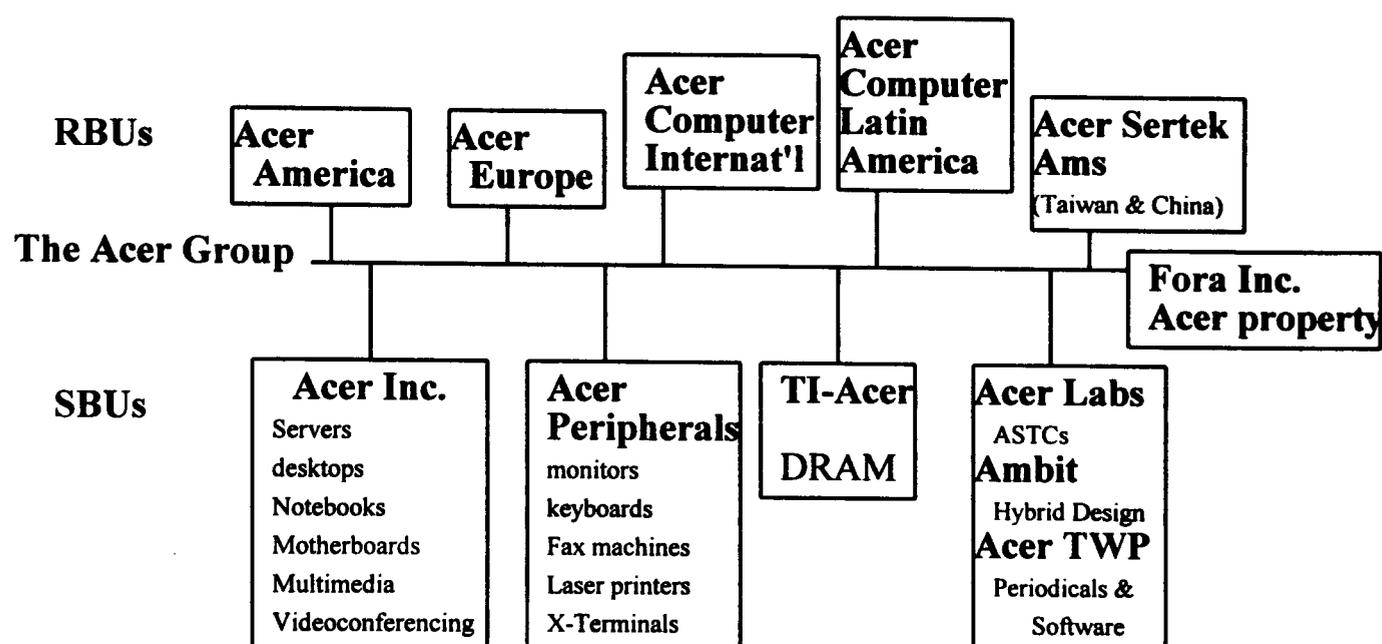
personal computers in the 1980s, Acer Inc. almost doubled its growth each year in the 1980s and quickly became a number one computer company in mid-1980. The original Multitech International Corporation, changing its name to Acer Sertek Incorporated, later became a subsidiary of Acer Inc. In 1987 due to a disputation with a "Multitech" American firm, the Acer group changed its brand name from "Multitech" to "Acer." In 1988 Acer Inc. officially became a publicly listed company and started its move towards globalisation.

Taking advantage of unprecedented prosperity in Taiwan's stock market, Acer was able to raise enough cash⁵⁴ within a short time to embark on the task of globalisation. In 1989, Leonard Liu, vice-president of IBM, was invited to be president of Acer Inc. A series of great mergers and investments was made at the same time. Because of over-expectation and over-investment, plus suffering recession in the information industry, Acer made a great loss. Losing its star quality, Acer started its re-engineering in 1990 to 1992.

The Acer group divides its business units (Figure 5.1) into SBUs and RBUs (regional business units). The SBUs focus on product development while the RBUs emphasise sales activities. In response to the demands of an increasingly "dis-integrated" IT industry in the 1990s, Acer has developed a flexible "fast food style" business model for its world-wide different tiers of RBUs and an effective "client-server" organisation structure, as a basis of co-ordination within its BUs, and it is decentralised in decision making between headquarters and BUs. For successfully developing its marketing and business, Acer uses an integrated "global brand, local touch" strategy to ensure lasting business success. The re-engineering was quite successful and Acer started its high growth again. Its revenue grew 47% in 1993, 85% in 1994, and 70% in 1995. Acer has kept its top seven world PC company position since 1994.

⁵⁴ In 1988 Acer increased its cash capital NT\$0.378 billion at \$47 (par value \$10) and in 1989 it also increased its cash capital NT\$0.7 billion at \$66. Totally it got funds of almost NT\$6.4 billion and among them paid-in capital about NT\$5.3 billion (its total capital at the end of 1989 was only NT\$3.64 billion).

Figure 5.1 The Acer Group Profile



Compared to the other three firms, Acer seems to have more traditional Chinese management. The chairman always believes "human nature is essentially good" and he shares benefit and risk with other people. He said: "From the beginning of business nearly 19 years ago we have always used separated management and a risk-sharing approach. We share with one another, no matter whether in the stock share, management, or profit sharing." Its auditing director, the wife of the chairman, also said: "The most important thing in developing business is that you need to look at it as a public property, not your personal property... Everyone pursues 'money' and 'position', so pay nothing and you enjoy nothing." She continued: "We have the spirit of 'yielding'." The chairman Stan Shih likes to use persuasion instead of ordering, as the second managing director of the German operation said: "That is Stan's management style! He has lots of business ideas but he always uses the persuasive approach instead of giving orders.... We often saw him around the European countries talking about his operating philosophy and he always persuades country heads how to run the business to achieve the company objective." In addition, the chairman fully applied the entrepreneurial spirit which believes the "Chinese people would rather be the head of a chicken than the tail of a cow" in his management philosophy. He encourages his managers "Better to be a leader in a small segment than 'also-ran' in the mainstream." Acer's delegation and intrapreneurship in the client-server framework answer to the needs of its aggressive talents and bring them "the sense of achievement of being a little boss."

The chairman Stan Shih also emphasises cultivating corporate culture. Acer culture is closely associated with Taiwanese culture as well as conventional Chinese culture. The chairman of Acer clearly described the direction it took in corporate

culture: "I continually promote Acer's corporate culture in four directions: a belief that human nature is essentially good, the customer is the first priority, the pursuit of excellence, and emphasising practicability." He believes that "human nature is basically good", so that he could fully delegate and trust his subordinates, creating an atmosphere of teamwork. People share risks and benefits on the basis of long-term commitment, and as their slogan says "The master reveals all 'trade secrets' to his pupils", they work with open mind. Its auditing director said: "In Acer all employees have 'respect' and 'environment', and that is the energy directing working hard." The chairman asks every Acer employee to "contribute wisdom" to realise the dragon dream, challenge leading-edge technology, and pursue entrepreneurial achievement. He also teaches his colleagues the need to "be pragmatic and accountable", to learn commoner culture, develop the marathon spirit, and foster independent financial management. Besides, he emphasises "Acer 1-2-3" policy; that means the customer is always number one, and then employees and then shareholders.

Acer always keeps a great ambition to pursue excellence. The name of "Acer" originated from the Latin word meaning "active, sharp, clear, incisive". Acer has built its corporate culture on a combination of these qualities, and desires to stand out from amongst fierce competition as a company that has established world-class quality and recognition.⁵⁵ They always follow great visions which seem difficult, or even impossible, to pursue. They design a series of slogans to motivate employees, to give confidence to customers, and to attract new talents. They offered different slogans at different stages, such as "The microprocessor gardeners" at the beginning of the company, then "Bridge the gap to a better tomorrow" and "Global vision through technology", until today's "Technology for everyone."⁵⁶

The Acer group emphasises basic practicability. There are no luxury offices at any branch. They urge on their employees "Frugal operation leads to clever, cost-effective solutions" and "keep the marathon spirit."⁵⁷ In addition, its top management strongly emphasises the feasibility of its operating plans. The chairman said: "The most important thing among them is whether you can actually carry them out. In fact, assumptions are often right, but the ability to execute them is not always good enough." "Don't risk what you can't afford to lose" has become another of their slogans.

"Challenge difficulties, break through bottlenecks, and create value" not only is the chairman's personal motto, but the philosophy is also applied to his management. He said: "Growth represents an opportunity, and also a risk, but according to our past

⁵⁵Quotation from a collection of Stan Shih's speeches.

⁵⁶Quotation from a collection of Stan Shih's speeches.

⁵⁷Quotation from a collection of Stan Shih's speeches.

experiences and lessons, growth certainly does not involve too much risk.⁵⁸ He promoted the slogan "the achievement of a little boss" and tried to generate a sense of achievement for employees by inviting them to take part in the employee share programme. He prefers using some slogan or so-called "long-term vision" to encourage his colleagues to pursue great dreams. He tolerates employees' mistakes and is willing to pay tuition for the intelligent growth of employees, and that is why Acer can keep lots of aggressive talents in the company. He always keeps extremely patient to get consensus from his colleagues and prefers to use persuasion and communication instead of imposed order.

Acer continues to employ independent and professional companies to cope with their management and marketing requirements under the slogan "global brand, local touch." Their goal is to localise their business structure thoroughly and establish Acer as a top international brand in all regions of the world. To cope with fast change and strengthen competitiveness, speed in time and turnover rate are the key successful factors in their operating. Its chairman said: "Speed is the factor that will separate the winners from the losers. In IT business, speed is a really beautiful thing."⁵⁹ They redefined production structure and produced in the same way as fast food, a plan by which Acer ships modular PC components to franchise locations around the world for standardised local assembly. Motherboards are flown to these locations directly to ensure delivery of the newest technologies, while CPUs, hard drives and memory are sourced locally to fill individual user requirements. This strategy allows Acer to maintain control over product quality and keep its inventory to a minimum level. The technique also provides firm international support to local assembly sites, resulting in even greater value added for today's low-margin environment. Customers also benefit from the site's ability to assemble competitively-priced PCs quickly on a "made-to-order" basis.

Acer follows a highly decentralised system in decision making. They divided the group into several business units including SBUs and RBUs. The SBUs were formed to take full responsibility for R&D, manufacturing, product management, and OEM sales, while RBUs took over distribution, service, and marketing. Each BU operates independently of the others. One of the vice presidents said: "Basically, the SBU and RBU in the group have no difference, because no matter whether in operating or finance they are all equal." Based on those BUs, Acer formed a decentralised structure called the client-server system. The new structure allowed for faster decision-making based on changing conditions in each region, while independent ownership and responsibility provided added motivation and incentive.

⁵⁸ From 1995. 4. 4 Economic Daily News.

⁵⁹ Quotation from a collection of Stan Shih's speeches.

This led to more focused management in each region or segment and a better understanding of Acer's overseas markets. The heads of business units within Acer have all been with the company for more than ten years, and the resulting client-server relationship gives Acer a strong competitive advantage. Its chairman said: "So at the moment the client-server system results in a lot of internal competitiveness, even fighting on the price, that is the risk-consciousness built-in." The unlimited flexibility and growth potential of this client-server organisation structure allows Acer to make optimal use of all its resources, while enabling individual ownership and decision-making throughout the group. Its chairman said: "The only thing we can do for them is to give them a basic system framework and some approaches to business sense."

On risk attitude, Acer always shows its aggressive ambition. At the moment they are challenging the top five companies in the world as their short-term target and mission. Besides, they set some long-term visions challenging the impossible as their goals, such as "2,000 in 2,000", "21 in 21", ...etc. Its chairman said as follows:

"Our visions are integrated with strategies. We integrate the visions with organisational characteristic, operating philosophy, and operating strategy. We also integrate with corporate culture. Under this situation, all employees very clearly understand their objectives, challenges, and achievements, so the morale is better than in other companies. The slogan "21 in 21", for example, is a simple and clear slogan but hides lots of meaning."

Acer's basic operating philosophy is to struggle to break through all bottlenecks.⁶⁰ The chairman said: "The limitation of Acer's growth is the capacity of its employees. We could not grow above our employees' capacity. We limit our overexpectation but we can't lose our opportunities to grow." He even said: "If there are opportunities and abilities to grow and I do not take them, I am a historical criminal. I always tell myself to utilise this good opportunity to create a computer empire for Taiwan... So if only I have ability, I cannot stop growing." He tolerates his managers' mistakes and looks at them as paying a "tuition fee" for talents. He said: "If you do not let executives get some lessons exploring the uncertain future, they can not grow up." He added: "A real leading pioneer company has no precedent case to refer to, and the only way is to build a learning organisation." In addition, if you only follow the American or Japanese approach, you will always be second-class.⁶¹ As he is deeply affected by chess theory, he did well in the competitive game. He said: "I use a circuitous approach instead of a direct approach to face our prime competitors, and I overcome business problems by means of time. We can expend ten years instead of three years. Although we developed faster than other companies, we have been

⁶⁰Quotation from KPMG videotape of Stan Shih's interview.

⁶¹ Quotation from "Me-too is not my style" by Stan Shih, 1996.

persistent longer than others. We depend on our abundant energy and long life to overcome any difficulty and we will succeed in the end."

Because Acer was established by a group of partners, no one had a strong financial background. Even the chairman Stan and his wife, Acer founders who once owned 50% of the shares when the business was started, at present control approximately 12%⁶². In 1983 when coping with the need for big funding for Acer Peripherals Inc., chairman Stan invited the boss of the Continental Engineering Corporation, Z. H. Ing, to invest in Acer Peripheral and let him have 25% of the total shares. Since that time Z. H. Ing has become a financial supporter. However, with Acer Peripheral fast expansion and becoming a publicly listed company in 1995 Ing's ownership of shares was dramatically declining. Acer's employees still hold relatively important shares⁶³ and the chairman Stan essentially handles the company operation. Most of the directors and supervisors in Acer Incorporated are handled by Acer's founders and professional senior managers. On leadership, Stan presents a low-key style, as he said: "Though I am the CEO, I deem myself a partner instead of a 'boss'."⁶⁴ He always discusses and shares experiences with his colleagues and this is the hinge on which Acer is able to establish mutual trust. As to regional companies abroad, Acer invited local agents to participate in its operation and allowed them more shares than Acer⁶⁵. The local touch strategy has proved very successful in third world countries. At present, Acer is the number one brand in Latin America, Southeast Asia, and over ten other countries. But Acer still needs markets in America and Europe, because at present Acer holds only a 3.7% market share in America and 2% in Europe⁶⁶.

Relying on its extensive development, manufacturing and distribution strengths, at present Acer produces personal computers, motherboards, peripherals, fax machines, dynamic random access memory (DRAM), application-specific integrated circuits (ASICs), hybrid microelectronics and software. At the moment, Acer operates ten manufacturing plants and 39 assembly sites around the world. Acer is currently among the world's top five suppliers of motherboards, ASICs, monitors and keyboards. Constant innovation over the years has given Acer more than 360 patents and over 100 major awards around the world. At present, the firm is also moving aggressively to develop new products for the consumer electronics and communications fields. Acer operates 80 offices in 35 countries around the world and

⁶² From 1996. 7. 23 Economic Daily News.

⁶³ According to 1996. 1. 29 Financial Daily Information, in 1988 when Acer became a publicly listed company, its 3,000 employees owned 70% of total stock share.

⁶⁴ Quotation from "Me-too Is Not My Style" by Stan Shih, p.20.

⁶⁵ According to 1996. 1. 29 Financial Daily Information, Acer occupies only 20% of shares in most of Latin American countries and 33% in Mexico.

⁶⁶ From 1996. 1. 29 Financial Daily Information.

employs 15,000 people from 50 nations. The "global brand" is a common resource of Acer group companies and also Acer's weapon of "local touch." Acer uses its so-called "7-3-4 model"⁶⁷ to create its continual high growth. It expended big funds in the global market in past years and about NT\$3 billion was expended on global marketing in 1995⁶⁸. At present its PC brand name accounts for about 70%⁶⁹ of its total sales. Currently Acer is the number one PC company and the biggest import and export company in Taiwan, and the seventh largest PC brand in the world. In 1995, its group attained NT\$151.2 billion in total sales and held NT\$99.4 billion in total assets. Its original long-term vision "2000 in 2000" meaning in 2000 Acer will achieve the sales objective of NT\$200 billion seems in need of revision. Following the steps of Mitac and Compaq, Acer and IBM became another strategic alliance in September 1996.⁷⁰ With its perfect global logistic system, it is expected Acer will step forward to another business peak. However, over the past twenty years, Acer has become a national star and Stan Shih is a hero in Taiwan's IT industry.

In total, the Acer group has more than 70 companies around the world and some of them belong to subsidiaries of Acer's subsidiaries. In addition to Acer Incorporated, a parent company and headquarters of the group, there are many sub-headquarters around the world. At present Acer's group owns five publicly listed companies including Acer Incorporated, Acer Peripheral Incorporated, Acer Sertek Incorporated in Taiwan; Acer Computer international in Singapore; and Acer-Computer Latino America in Mexico. TI-Acer now is in the top 52 in Taiwan manufacturing industries and should become a publicly listed company in 1997 also. Besides, Acer still owns some successful companies such as Acer laboratories incorporated, Ambit Microsystems Corporation, Acer TWP Corporation, Acer America Corporation, and Acer Computer B. V. (see Appendix 3). Acer has strong ambitions to pursue its long-term vision "21 in 21", which means that before the 21st century Acer would have 21 publicly listed companies around the world.

In this research, comparison is made between Acer management control system in its European operations (including Holland, Germany, and Britain) and Acer Global Incorporated. Basically, they all belong to second-tier subsidiaries of the Acer group, and all own PC assembling plants and are similar in scale.

⁶⁷ 7-3-4 model means if the profit was generated by 70% of the operation, 30% of it must be used to invest for the future, which means the current real profit is only 40%.

⁶⁸ From 1996. 7. 23 Economic Daily News.

⁶⁹ From 1996. 9. 5 Financial Daily Information.

⁷⁰ 1996. 9. 4 Economic Daily News.

5.6 Summary

The four case firms in the research have been presented above. Each firm has its special background and leadership style which may affect its control style and the transference of its management control systems. The research will continue to probe their relationships in the following chapters.

6. Comparisons between Taiwanese and European Operations within MNCs

- 6.1 Introduction
 - 6.2 Objective Setting
 - 6.3 Participation
 - 6.4 Long-term and Short-term planning
 - 6.5 Decentralisation
 - 6.6 Formality
 - 6.7 Controllability-filters
 - 6.8 Feedback extent and frequency
 - 6.9 Contingent Rewards
 - 6.10 Group Rewards
 - 6.11 Long-term Rewards
 - 6.12 Summary
-

6.1 Introduction

In this chapter the data from in-depth interviews at operational level will be analysed through comparing different operations within the same case firm. Ten sub-propositions in proposition 1 will be examined component by component in this chapter.

6.2 Objective Setting

Proposition 1-1: Taiwanese operations will employ more top-down planning in objective-setting than their European counterparts.

The purpose of this proposition is to compare the style of objective-setting between the Taiwanese and European operations within each case firm. Four themes, approach, participation, budget preparation, and planning procedure, from the main interview questions on objective setting will be analysed as the criteria for comparison.

6.2.1 Tatung

Concerning the process of objective setting, a similarity existed between the Taiwanese and British operations (Table 6.1). Both operations had highly top down planning and formal procedures. They also had a whole management team to participate in the budgeting lasting more than three months. Although both sides used the top down approach on objective setting, some things were still slightly different.

Because Taiwan's Tatung is a big company and many operations participate in the budgeting, and although many senior managers at headquarters as a team assist in setting corporate objectives, it is impossible for top management to set detailed objectives for each operation and to communicate these down through the organisation.¹ As the chief accountant of Tatung's Taiwanese operation stated: "Because the whole company has a total objective and may have a difference in the combination from different plants, we use a two-stage approach. In the first stage we prepare only the sales and profit budget for the purpose of comparing with the total objective of the company. Then, the top management adjusts each plant's objective to be consistent with the total objective, and then each plant starts to prepare its detailed budget."²

Table 6.1 A Comparison of Objective Setting between the Taiwanese and British Operations within Tatung

Items	Taiwanese operation	British operation
Approach	Highly top down	Highly top down
Participation • Total objectives • Detail budget	Top management Whole management team	Key managers* Whole management team
Budget preparation	Long time (more than 3 months)	Long time (more than 3 months)
Procedure • Process • Type of budget	Highly formal By units and products	Highly formal By units and products

* Include the president and two managing directors

Compared to the Taiwanese operations, the British operation was more independent and the president and two managing directors set the objectives and decided important policies and strategies. "According to the profit and performance of the previous year, the president and two managing directors determine the policies and strategies before budgeting and they discuss a total objective. Then from September we start to prepare our budgets which need a long period of paper work."³ "About the process of top-down or bottom-up, I would think it is on balance. If we are talking about setting the objective, I would say it is top-down, but if we talk of building the budget then I would say it is bottom-up."⁴ Obviously, Tatung's British top management were strongly involved in the process of integrated objective setting.

Overall, both operations were similar in the objective setting process, but the British operation used a top-down approach more directly through a smaller team. The top managers in the British operation focused more on operations, including more review-and-discussion meetings, and more directives from supervisors, but the integrated budget system was still more formal and standard in the Taiwanese operation.

¹ From the interview with the director of electronic plant.

² Quotation from the interview with the chief accountant of Tatung's Taiwanese operation.

³ Quotation from the interview with the executive director of Tatung (UK) Limited.

⁴ Quotation from the interview with the operating manager of Tatung (UK) Limited.

6.2.2 Lite-On

Strong differences in objective setting existed between the Taiwanese and British operations (Table 6.2). In Taiwan, the company emphasised planning and budgeting, and its plan and budget were divided into two SBUs, the Opoto Division and the Power Conversion Division. They prepared strategic planning first, and then the annual budget. Each year the planning started in August or September, taking more than three months. "Before strategic planning, top management will give some clear goals, then we start to develop a three-year strategic plan based on "SWOT" analysis. According to our strategic planning and middle range goals, we start to prepare the annual budget.⁵" Basically, the process of objective setting was top down: its planning director described the need for this:

"The top management have their goals and objectives. They have some expectations and a framework to the corporation to match whole group goals and objectives, so they will give some clear guidelines in advance.

The budgeting is from the bottom, but the basic goals or objectives are from the top and then we will find and adjust the balance point."

When the budget is discussed within the SBU, all senior managers and department heads are invited to participate in the discussion.

Table 6.2 A Comparison of Objective Setting between the Taiwanese and British Operations within Lite-On

Items	Taiwanese operation	British operation
Approach	Top down	More bottom up
Participation		
• Total objectives	Top management	Key managers*
• Detail budget	Department heads	Controller and sales manager
Budget preparation	Long time (three months)	Short time (one month)
Procedure		
• Process	Formal	Less formal
• Type of budget	By units	Plant-wide basis

* Including the managing director, executive manager, and the controller.

Compared to the Taiwanese operation, the objective setting in the British operation was more bottom up. "The company budgeting is a bottom up approach and has full communication.⁶" The managing director also described their process:

⁵ From the interview with the deputy controller of Taiwan Liton Electronic Co.

⁶ Quotation from the interview with the production manager of Lite-On Limited (UK).

"The budgeting is put together by department managers and each is asked for their needs. The main point of the budget is marketing driven, so the initial budgeting is toward sales forecasting we believe achievable. Once we create that and review it, then each department looks at the resources we need to support the budget, and then we create the total budget."

The budgeting in the British operation was less formal and took a shorter preparation time than the Taiwanese operation. Most of the budget prepared by its financial controller and the strategic planning was also quite rough.⁷ In addition, compared to the Taiwanese operation, only a few key managers participated in high-level discussions.

Overall, there were strong differences in objective setting between the two operations. The Taiwanese operation used more formal and top down approach, while the British operation used an informal and bottom up approach.

6.2.3 Mitac

Some differences in objective setting were found between the Taiwanese and British operations (Table 6.3). The Taiwanese operation had a clear process for objective setting, including more senior managers participating in important strategies and development directions such as significant expenditures or advertisement expenses, and new products and markets⁸; more discussions and meetings; longer time for budgeting; and more deep and detailed involvement in budgeting. Before the process of budgeting, the sales department would discuss it with related departments, then work out a business plan, and then develop the investment and capacity plan. There was a series of meetings to discuss those plans, and it then began to prepare a detailed plan and each department would refer to its past years' record before preparing its budget.⁹ As to the objective process, top management preferred to set some clear financial goals and communicate down through the organisation, just as its controller described:

"Top management will set some important targets such as R&D, profit, and turnover according to the past years' record, so it will be more efficient in budgeting and can cut budgeting time."

⁷ From the interview with the financial controller of Lite-On Limited (UK).

⁸ From the interview with the controller of Mitac International Corporation.

⁹ From the interview with one of the AVPs of Hsin-Chu plant of Mitac International.

Table 6.3 A Comparison of Objective Setting between the Taiwanese and British Operations within Mitac

Items	Taiwanese operation	British operation
Approach	Top down	Top down
Participation • Total objectives • Detail budget	Senior managers Departmental heads	Managing director Controller and sales managers
Budget preparation	About two months	About one month
Procedure • Process • Type of budget	Formal By units	Less formal Plant-wide basis

Compared to the Taiwanese operation, the British operation prepared its budget simply on a plant-wide basis. The sales department prepared the annual sales forecast, then the financial department with this forecast finished the master budget. Apart from the sales department, other units lacked full participation. If headquarters did not agree with its objective, then they would need to adjust the financial objectives. So compared to the Taiwanese operation, there were fewer meetings for discussion and participation and the managing director and financial controller played critical roles. In the objective setting process, its financial goals were also significantly affected by its top management and communicated down through the organisation, as its logistics director described:

"The pre-meeting will set out what is likely to change in the following year in terms of profit, production, sales channel, overheads, and personnel, all the key factors in the forecast. Highlights and some directions are given to the way we should go."

6.2.4 Acer

Table 6.4 A Comparison of Objective Setting between the Taiwanese and European Operations within Acer

Items	Taiwanese operation	Dutch operation	German operation	British operation
Approach	Top down	Top down	Top down	More bottom up
Participation • Total objectives • Detail budget	Top management All unit managers	Senior managers Department heads	Key managers* Controllers and sales manager	Senior managers Controller, logistic and sales managers
Budget preparation	More than two months	About one month	About one month	About one month
Procedure • Process • Type of budget	Formal By units	Less formal By department	Informal Plant-wide basis	Less formal but better than Dutch operation Plant-wide basis

* Including two managing directors and the controller

Different objective setting existed among the operations, especially between the Taiwanese operation and the European operations (Table 6.4). Generally speaking, in the Taiwanese operation each manager had his right role in the objective setting, procedures and budget meetings were more formal, managers spent more time on budgeting, and supervisors had more influence on their subordinates in objective setting or standard setting. Its plant director described the situation:

"We start our budget in September or October. Headquarters sets a long-term plan containing mission, objective, strategy, and forecast. Firstly, the plan is sent to each manager and overseas managers. All managers must offer their comments ... The objectives, including turnover, profit, ROE, and market share, are very clear. We need to discuss them and decide whether to change them.... Most of these processes are considered from the top-down approach. Then all field sites or relevant managers need to propose their business plans in response to the question of how to reach these targets."

Normally, before preparing the sales budget, top management will express how much bottom line will be achieved the following year. Then they will look at the sales budget and overhead budget to see whether the bottom line could be attained. If the difference is significant, then they maybe need a special meeting for discussion or to present the scheme to top management for approval.¹⁰

The planning period needed more than two months and lots of meetings were held for budgeting. On the profit objective, two targets were set: one a financial target and the other for management. The purpose of the financial target was for preparing external financial reports, but the management target was for purposes of internal evaluation.¹¹ The plant director described them as "more aggressive" and "conservative" targets, and he said: "Each type of target involves different assumptions, but if we cannot reach the aggressive one, then we need at least to keep in view the target most likely to be attained."

Compared to the Taiwanese operation, European operations were less formal and less time was spent in planning. Among European operations, the British operation spent more time on strategic planning and discussions than others. All operations put more emphasis on sales planning and like the Taiwanese operation set objectives for both financial and management purposes.

In the Dutch operation, the objective setting was more from headquarters, as its financial controller said: "The real budget committee is at Taiwan headquarters." and the general controller of Europe explained the reason:

¹⁰ From the interview with the chief accountant of Acer Global Inc.

¹¹ Quotation from the interview with the president of Acer Global Inc.

"Acer uses the top-down approach. Maybe because top management at headquarters has a broader and clearer picture, they set the big target first and then communicate down to make plans."

Because targets had a close relation to operations' incentives, each operational head always prepared a somewhat conservative budget. So negotiation was often needed.¹² Although broad views from top management presented a better picture, getting relevant information from the bottom was still very important to the operation. "The environment is changing so fast, so we need to consider special local conditions. At this time bottom-up can reflect some relevant information."¹³

In the German operation, there was a quite special approach in budgeting. Key managers including two managing directors and a controller determined the developing directions and gave some basic figures first. Then they started preparing the budget. "We decide some basic guidelines which disclose how much growth rate we need, where the focus point we need to control lies, and how much inventory turnover we need."¹⁴ The controller was responsible for budget preparation so he needed to communicate fully with departmental heads. Its first managing director described the process:

"We have a preliminary budget meeting where every departmental head has a discussion with the controller and final budgeting will be done by the top management together with the controller."

The budget was finally prepared on a whole company basis, not by department, and the preparation time was shorter than in other operations. As to objectives, they also set two types for different purposes: (1) optimistic and (2) conservative for financial and management purposes.

The British operation had more discussions and was a little more formal in budget procedure than other European operations. Before preparing the annual budget, they discussed strategic planning first. Each manager, especially of the marketing and production departments, needed to prepare for some discussion about future strategies.¹⁵ Once the strategies were formulated, then they started to prepare the budget. They started the sales forecast by sales department, then prepared source requirements. Before preparing the sales budget, the managing director normally would give some target instructions such as the expected growth the following year, so from the sales budget viewpoint, the company was very top-down revenue-oriented.¹⁶

¹² From the interview with the president of Acer European headquarters and Acer Computer B.V.

¹³ Quotation from the interview with the financial controller of Acer Computer B.V.

¹⁴ Quotation from the interview with the first managing director of Acer Computer GmbH.

¹⁵ Quotation from the interview with the controller (now managing director) of Acer U.K. Limited.

¹⁶ From the interview with the marketing director of Acer U.K. Limited.

Revenue was top-down, but cost and expense still somewhat bottom-up. When preparing resource requirements, basically departmental heads prepared only the inquiry but the budget was prepared by the financial department. The discussions and communications in budgeting were quite good, as its controller said: "Obviously there has to be more and more a bottom-up approach, because we emphasise the cost base. Now, we involve more people in deciding the budget." As to the objective, it still had two types of target including internal target and external target.

6.2.5 Conclusion and Discussion

This proposition was broadly supported by the study. Overall, Taiwanese operations employed more top-down planning in objective setting than their European counterparts. The result was conformity with Hofstede's (1980/1984, 1991) cultural theory. With a high power distance, ordering relationships between the senior managers and their subordinates, and collective society, Taiwanese operations employed more top-down planning in their objective setting. Even though this research is a pioneering comparative study between Europe and Taiwan, the results can still be compared with prior research (such as Harrison et al., 1994 between Australia/ United States and Singapore/ Hong Kong; Chow et al., 1994 between United States and Japan). Clearly, the Oriental countries studied used more top-down planning than Western countries.

While national culture seemed an important factor in the process of objective setting, the factor of the case firm still constituted another important element. Further careful examination of individual case firms showed Tatung had similarities between its Taiwanese and European operations, Lite-On proved strongly different, and Mitac and Acer were in the middle. Except for Lite-On, which showed a strong difference between its Taiwanese and European operations, other case firms' supervisors significantly influenced their subordinates in objective setting or standard setting. Taiwanese expatriate senior managers in the European operations of Tatung, Mitac, and Acer obviously played an important role in the process of objective setting (Ferner, 1996; Schneider, 1988; Latham and Napier, 1989).

The style of objective setting of the European operation of a multinational firm is shaped by three main streams. National culture is the first and it may broadly affect each operation. The second stream comes from its headquarters. As a foreign operation, it needs to follow some policies of objective setting from headquarters. In addition, expatriate senior managers from headquarters are used to the ways in their home countries. Some Taiwanese firms, such as Tatung, prefer to select their expatriate senior managers from their in-group (Triandis & McCusker, 1990; Whitley,

1992). These senior managers may strictly obey their headquarters' policy and keep the ways of objective setting used in their home countries as far as possible. The more senior managers selected from the in-group, the more similarities in objective setting there may be. In other words, whether the proposition is accepted or rejected may depend on the cases chosen. The third stream comes from the characteristics of senior managers. Especially, the education and experience of senior managers significantly affects a firm's MCSs (Merchant et al., 1995). Probably this factor can explain why the studies, which were based on Hofstede's cultural theory, of Harrison et al. (1994) and Chow et al. (1994) could not find support for their hypotheses.

6.3 Participation

Proposition 1-2: Taiwanese operations will be less participative in planning than their European counterparts.

The purpose of this proposition is to compare the component of participation in planning between the Taiwanese and European operations within each case firm. Three themes, including budget committees, participation in discussion, and communication between upper management and lower management, from the main interview questions on participation will be analysed as the criteria of comparison.

6.3.1 Tatung

Table 6.5 A Comparison of the Participation between the Taiwanese and British Operations within Tatung

Items	Taiwanese operation	British operation
Budget committee • Form • Committees • Budget manual	Formal budget committee Divisional & functional heads Formal manual	Formal budget committee Divisional & functional heads Formal manual
Participating discussion • Operating meeting • Managerial meeting • Discussion form	Formal monthly meeting Formal weekly meeting and lots of meetings when needed Formal communication and discussions	Formal monthly meeting Weekly meeting and lots of meeting when needed Formal communication and discussions
Communication between upper and lower management	Two-way communication, but more strong on the side of upper management	A little better two-way communication than its counterpart

Lots of similarities in planning participation existed between the Taiwanese and British operations (Table 6.5). Both operations had budget committees for discussing the annual budget, each department had to participate in the budgeting and to prepare a departmental budget, and many meetings were held for discussing and

communicating budget problems, but from the extent of budgeting participation, the managers of the British operation sought more subsidiary advice and had more discussions and two-way communication than did the Taiwanese operation. "Each departmental head has more opportunities to develop his budget and present it to the president. Of course we cannot expect that he will accept the whole budget. It needs lots of discussions between them."¹⁷ Its executive director described the situation in detail:

"At Tatung UK Company each departmental head is the boss of the department. They can evaluate their subordinates but they need to follow company policies and procedures and budget. Maybe this point is different from Taiwan Tatung corporation. Their units' budgets are all prepared by themselves. Although we determined them through communication and were somewhat centralised, I asked them to sign their own name in commitment to the budget."

Compared to the sales budget of Taiwanese operations, the British operation was more detailed than the Taiwanese operation. Its sales budget was prepared not only by product line and territory, but also by salesman; that means each salesman, territory, and product had its targets, the bases for calculating an individual's bonus.¹⁸ The communication within each department was emphasised, as its operating manager said: "I ascertain that my departmental heads know about the figure I put forward. I don't put the figure forward unless they have made a contribution towards it. Yes, I do believe they should make a contribution toward the budget, certainly."

Generally speaking, both operations had the same budgeting process and style, but as the British operation was more independent than the Taiwanese operation its senior managers focused more easily on fuller participation.

6.3.2 Lite-On

On participation, basically there were some differences between the two operations (Table 6.6). The Taiwanese operation had more and deeper discussions, but the British operation respected its managers' opinions more. The Taiwanese operation focused more on strategic planning and budget, expending a lot of time on discussing and revising, and the process contained both top-down and bottom-up.¹⁹ All important senior managers participated in the budget meeting. Each SBU reviewed its budget many times before sending it to the budget meeting. Because of the stable growth in

¹⁷ Quotation from the interview with the financial controller of Tatung (UK) Limited.

¹⁸ Quotation from the interview with the marketing and sales manager.

¹⁹ From the interview with the controller of Taiwan Liton Electronic Co.

recent years, the annual budget and middle-term planning had a good linkage and more accuracy.²⁰

Table 6.6 A Comparison of the Participation between the Taiwanese and British Operations within Lite-On

Items	Taiwanese operation	British operation
Budget committee • Form • Committees • Budget manual	Formal committee All senior managers Budget guideline	Informal committee Key managers* Lacking a formal guideline
Participating discussion • Operating meeting • Managerial meeting • Discussion form	Monthly Irregular but formal More formal communication	Irregular, when necessary. Irregular and informal Less formal communication
Communication between upper and lower management	Two-way communication, more focus on strategic planning	Two-way communication, more respect for managers' opinions

* Including the managing director, executive manager, controller, sales manager, and production manager.

The managing director and the executive director of the British operation both strongly emphasised participation, as its managing director said: "We try to motivate people by bringing them into the operation. Their contribution is part of what we are achieving. They are needed by this company so they have some value themselves." Its production manager, a newcomer, also felt the encouragement:

"I participate very much ... I have many meetings and discussions, and they respect my opinions ... Since I came to Lite-On, I am always asked for my input, always! Maybe my decision is wrong, is incorrect, but they accept it."

However, owing to the historical background, total participation still needs to improve continually, just as its personnel officer said:

"Before, the Lite-On company was run by a management team who made decisions and passed the decisions down to everybody else ... At the moment we try to let everybody participate instead of a one way approach. That means working together with them to achieve the objectives of the company. Now we are trying to change the corporate culture ... Basically I think we need really good training. You cannot expect the people to change their attitude to the way we carry on. And it is important in managers' training as well."

All in all, the two operations strongly emphasised the participation in planning, but the Taiwanese operation had more formal procedures and more managers participated in the discussions.

²⁰ Quotation from the interview with the controller (now vice-president) is of Taiwan Liton Electronic Co.

6.3.3 Mitac

Strong differences on participation existed between the Taiwanese and British operations (Table 6.7). In the Taiwanese operation, the budget was prepared by product line and department. Each department and product line head and senior managers needed to participate in budgeting meetings. One of its associate vice presidents said: "Before preparing the budget, I need to review all situations and communicate with other departments." Its controller felt that he needed more participation with other departments, otherwise he could not offer valuable information to departments. Each department prepared its budget and then combined to produce a company draft budget. Then the top management group, including vice president level, discussed its content and some changes and adjustments were possible.²¹

Table 6.7 A Comparison of the Participation between the Taiwanese and British Operations within Mitac

Items	Taiwanese operation	British operation
Budget committee • Form • Committees • Budget manual	Formal All heads and senior managers Formal manual	Informal Key managers* Lacking manual or guideline
Participating discussion • Operating meeting • Managerial meeting • Discussion form	Formal monthly meeting Irregular but formal More formal communication	Per half year but informal Irregular and informal More personal contacts
Communication between upper and lower management	More time and opportunities for two-way communication	Less opportunities for two-way communication

* Including managing director, logistics manager, marketing managers, and the controller.

In the British operation, only a little time was expended on budget meetings and discussions. The budget was quickly prepared by the financial department according to some simple guides and past years' margins. Except that the marketing department participated more in the estimation of sales forecast, budget was completed by the financial department and they expended only very little time on budgeting and discussion.²²

Although the operation took only a few budget meetings, they had many channels for discussion, including the open mail system, managers meetings, and face-to-face talking and discussing at any time.²³

²¹ From the interview with one of the AVPs of Hsin-Chu plant of Mitac international.

²² Quotation from the interview with the assistant controller of Mitac Europe Limited.

²³ From the interview with the logistics director of Mitac Europe Limited.

Obviously, the Taiwanese operation allowed more participation in the planning process than the British operation.

6.3.4 Acer

Strong differences on participation existed among operations (Table 6.8). Objectively, the Taiwanese operation had deeper and better participation in the planning process than did the European operations. Each departmental manager was required to participate in strategic planning and propose his plan to make sure of achieving the target. When managers were preparing departmental budgets, the accounting department offered them relevant historical information for reference. The opinions of departmental heads were respected by their senior managers. "Top management always respects each departmental head's opinion, so if the budget figures are not too abnormal there is no problem."²⁴ Acer's chief accountant has a similar description: "If we cut the units' budgets, we certainly return them to their managers to see whether they have any difficulty in the execution."

Table 6.8 A Comparison of the Participation between the Taiwanese and European Operations within Acer

Items	Taiwanese operation	Dutch operation	German operation	British operation
Budget committee • Form • Committees • Budget manual	Formal committee Each unit's head A simple guideline	Informal committee Each unit's head No formal guideline	No committee Key managers* No guideline	Informal committee Senior managers No guideline
Participating discussion • Operating meeting • Managerial meeting • Discussion form	Monthly Weekly More formal	Monthly Irregular Less formal	Irregular Irregular and informal Informal	Per half year Irregular Less formal
Communication between upper and lower management	More and better two-way communication	Better communication between Chinese managers	Communication between key managers only	Better two-way communication

* Including two managing directors and the controller.

The Dutch operation had better participation in planning than other European operations. Each departmental head had to participate in the planning and preparation of the departmental budget. Also, as the European headquarters is at the centre of the operation, many senior Taiwanese managers coming from Taiwan also naturally used the same participating approach in budgeting. "Although top managers have a more

²⁴ Quotation from the interview with the service manager of Acer Global Inc.

decisive and more global view, there are many different views between top managers and each department. Therefore we consider the final decision with each department. There are lots of communications within the budget process.²⁵"

Compared to the Taiwanese and Dutch operations, the German and British operations had less participation in budgeting. Apart from the sales department, other departments had little participate in the budget. In Germany two managing directors and a controller reviewed the strategy and decided basic figures, and then its controller handled most of the budgeting. In the UK its managing director normally gave some target instructions and then distributed the mission to lower ranks. "The budget has a great function in fixing the objective, but the integrated framework of the budget, finance, and operation is still not enough and most of the time still depends on managers' judgement."²⁶ As to budgeting, as in the German situation, the controller handled most matters.

6.3.5 Conclusion and Discussion

This proposition was rejected by the research and the direction is the reverse. Taiwanese operations had more participation than European operations. In addition, the factor of the case firm also significantly affected participation and a strong interaction between area and company also existed among the case firms. Except for Tatung which had a similar participation between its Taiwanese and European operations, other firms had obvious differences and the direction was in the reverse. Lite-On had only a small difference in participation, but Acer and Mitac had a strong difference between the two sides. The influence of national culture could still be found in Tatung and Lite-On, but it could not be seen in Acer and Mitac.

The result here was not consistent with some relevant research, such as Harrison (1992, comparing firms between Singapore and Australia), Chow et al. (1994, comparing Japanese and American firms in Taiwan). However, some prior research also showed a reverse direction (such as O'Connor, 1995, comparing local and foreign manufacturing firms in Singapore) or a complex sequence (such as Chow et al., 1996 comparing Japanese, Taiwanese, and American firms in Taiwan). Inferring research conclusions from Hofstede's (1980/1984, 1991) cultural theory should therefore be treated with caution.

However, this research using cross-border intra-firm comparison differs from prior research using inter-firm comparison. Leadership style from headquarters and some contingencies could significantly affect the result. Because most strategies and

²⁵ Quotation from the interview with the financial controller of Acer Computer B.V.

²⁶ Quotation from the interview with the logistics director of Acer U.K. Limited.

policies came from Taiwanese headquarters, obviously, as a branch or subsidiary in Europe it had less participation than its Taiwanese counterpart. In addition, many expatriate managers from headquarters often maintained poor communications with local personnel (Kopp, 1994; Boyacigiller, 1990). Another important reason may come from the different scale of operation, market focus, and the easier job of top managers. Owing to the smaller scale and market emphasis, some European operations were easily handled by their key managers.

6.4 Long-term and Short-term Planning

Proposition 1-3: Taiwanese operations will focus more on long-term planning than their European counterparts.

The purpose of this proposition is to compare the focus of long-term planning between the Taiwanese and European operations within each case firm. Three themes, including budget time span, long-term planning, and matching long-term and short-term planning, from the main interview questions on short-term and long-term planning will be analysed as the basis of comparison.

6.4.1 Tatung

Table 6.9 A Comparison of the Long-term and Short-term Planning between the Taiwanese and British Operations within Tatung

Items	Taiwanese operation	British operation
Budget time span • Budget period • Review	One year Monthly	One year Monthly
Long-term planning • Plan • Content • Development • Form • Feedback	A seven-year budget Sales and profit Strict top-down approach Formal Slack	A five-year budget Sales and profit Top-down approach Formal Slack
Matching long-term and short-term planning • Linkage • Focus	Long-term budget as a vision Annual budget	Long-term budget as a vision Annual budget

Basically, both operations put more emphasis on the short-term budget, but they all had long-term plans which are decided only by senior managers (Table 6.9). The director of the Taiwanese operation described the situation:

"Originally, we ought to have a long-term plan, but because the corporation uses the profit centre system, each centre takes care only of its short-term benefit. All long-term plans use the top-down approach.... Long-term planning includes, for example, the expanding of new product lines, creating new businesses, and adjusting the organisation, and all policies are made or imposed from the top down."

A slightly different time span in long-term planning existed between the two operations. The Taiwanese operation used a seven-year budget covering only sales and profit, but the British operation used a five-year budget, which lacked feedback and was only for reference. "The first three years are more accurate and seven years may be too long."²⁷ The executive director of the British operation also said: "Of course, the long-term plan was always very rough, because some situations change so fast."

Overall, there was a strong similarity on long-term and short-term planning between the two operations.

6.4.2 Lite-On

Table 6.10 A Comparison of the Long-term and Short-term Planning between the Taiwanese and British Operations within Lite-On

Items	Taiwanese operation	British operation
Budget time span • Budget period • Review	One year Quarterly	One year Lacking a systematic review
Long-term planning • Plan • Content • Development • Form • Feedback	A three-year strategic plan Operating results & investments Divisional heads & senior managers Formal planning Review per half year	A three-year plan Sales & profits Senior managers Less formal planning. Slack
Matching long-term and short-term planning • Linkage • Focus	Strategic planning links budget well Strategic planning	Three-year plan as a vision Annual budget

Strong differences on balancing long-term and short-term planning exist between the Taiwanese and British operations (Table 6.10). Compared to other Taiwanese companies, the group strongly emphasised long-term planning. High level managers were required to participate in strategic planning. The strategic planning including market growth, technical research and development, manufacturing strategies, and investment for the future three years, was suggested by SBUs and then the framework from each SBU was summarised for discussion.²⁸

²⁷ Quotation from the interview with the chief accountant of Tatung Taiwan operation.

²⁸ Quotation from the interview with the president of Taiwan Liton Electronic Co.

In addition to the strategic planning, they also roughly estimated the revenue and profit of the fourth and fifth years. In addition, they reviewed their strategic planning every half-year. The long-term plan and annual budget were matched very well, as its planning director said:

"We prepare annual budget according to a three-year plan. When we prepare the annual budget, we have already determined the revenue and profit in the three-year plan.... Because everyone agrees with the conclusion, so the budget and strategic planning are easy to attain.""

Compared to the Taiwanese operation, the British operation is still in the stage of loss and its scale is small. Although they also prepared a three-year plan, they were in a hurry to make money in the near future. They focused most of the time on an annual master budget. Of course, that does not mean they did not care about the long-term plan, just as its executive director described:

"We want to develop a long-term relationship with suppliers with a commitment to long period orders and a vision of how they see the business going, and the number of products they plan to introduce."

Overall, there was a strong difference on long-term and short-term planning between the two operations. The Taiwanese operation obviously emphasised more long-term strategic planning than did the British operation.

6.4.3 Mitac

Table 6.11 A Comparison of the Long-term and Short-term Planning between the Taiwanese and British Operations within Mitac

Items	Taiwanese operation	British operation
Budget time span • Budget period • Review	One year Quarterly	One year Lacking a systematic review
Long-term planning • Plan • Content • Development • Form • Feedback	A three years' plan Containing some rough indicators Senior managers Less formal, only as some abstract long-term visions Very slack	A very rough five-year plan Rough goals and investments Managing director & controller Informal Very slack.
Matching long-term and short-term planning • Linkage • Focus	Three years' plan as a vision Annual budget	Lacking linkage Annual budget

There were considerable similarities on short-term and long-term planning between the Taiwanese and British operations (Table 6.11). Both emphasised short-

term annual budget and only a rough long-term plan, but the time span of the long-term plan was somewhat different and the Taiwanese operation had more clear long-term vision. Some long-term visions were very abstract and vague, such as to "be a leading corporation in quality within the next three years" which lacked detailed plans or steps.²⁹ They just prepared some important indicators such as revenue, profit target, and cash flow in the three years' long-term plan. "Of course, we have some long-term visions and ambitions, but we see more clearly the next year."³⁰ They still focused on the annual budget.

As to the British operation, the long-term plan had only some rough indicators and they almost only focused on the annual budget. Its five-year plan covered capital investment, capital plan, and rough goal. Its managing director said: "There are always significant variances from the actual figures" and its assistant controller even said: "The long-term forecast is nonsense for us!". Its controller objectively explained the situation:

"Basically, it is not easy to prepare a long-term budget in our company, because we lack the consideration of policies and strategies and we just do the forecast for future years and go ahead."

In all, some similarities on short-term and long-term planning were found between the two operations, but the Taiwanese operation emphasised somewhat more long-term planning and discussions.

6.4.4 Acer

There were strong differences in short-term and long-term planning between the Taiwanese and European operations (Table 6.12). Objectively, the Acer group focused only on the annual budget and lacked effective long-term planning but the Taiwanese operation still focused more on long-term planning than its European operations. It had clearer long-term vision, such as NT\$1.5 billion sales target in 2000, and its three-year long-term plan covered in more detail the operating fund plan, capital investment plan, and other important strategies.³¹

²⁹ From the interview with one of AVPs of Hsin-Chu plant of Mitac International.

³⁰ Quotation from the interview with the controller of Mitac International.

³¹ From the interview with the plant director of Acer Global Inc. and some internal documents.

Table 6.12 A Comparison of the Long-term and Short-term Planning between the Taiwanese and European Operations within Acer

Items	Taiwanese operation	Dutch operation	German operation	British operation
Budget time span				
• Budget period	One year	One year	One year	One year
• Review	Monthly	Quarterly	Quarterly	Quarterly
Long-term planning				
• Plan	A three years' plan	A five years' plan	Long-term visions	A three years' plan
• Content	Visions and goals	Sales & profits	Rough goals	Sales and profits.
• Development	Top management	Based on Taiwan's long-term visions	Based on Taiwan's long-term visions	Senior managers
• Form	Informal contents	Informal planning	Highly informal	Less formal
• Feedback	Per half year	Slack	Lacking	Per half year
Matching long-term and short-term planning				
• Linkage	Budget matches visions	Lacking linkage	Lacking linkage	Lacking linkage
• Focus	Annual budget and vision	Annual budget	Annual budget	Annual budget

Compared to the Taiwanese operation, European operations as a RBU for marketing battle missions lacked independent long-term planning, just as its general controller of European headquarters said: "Some long-term plans here are based on Taiwan's planning." No matter that Holland had a five-year plan or the UK a three-year plan, they were only a rough vision, normally including only sales and profit expectations. The president of the European headquarters described the situation:

"Although we have prepared a five-year plan, actually we execute everything just for the short-term on an annual budget. The long-term plan is only like a vision, and somewhat like a slogan."

The German operation even had no official long-term plan, but its managing director explained:

"We have long-term planning internally in management. This long-term planning is nothing which we find in budget... It can be called a vision, and it is also a long-term strategy."

Acer group had a 21 in 21 vision. That means it will have at least 21 publicly offered companies in the world before the 21st century. In that time, all key managers will become main stockholders of their companies. It was a long-term hope for different operations' employees, but still significant gaps existed in some countries. The financial controller of the Dutch operation said: "There are a lot of long-term visions from Taiwan... but the long-term vision is not easy to transfer into planning, and to transfer from planning into financial budget." The managing director of the

German operation also had the same feeling: "Of course you should not have a high expectation. There is a big gap between headquarters managers and me, because they do not know the local requirements." Compared to the German and Dutch operations, the managing director of the British operation showed great ambition and said:

"We plan to become a publicly offered company and absorb key managers as our shareholders... If we can attain 5% of market share and 200 million pounds turnover, we will become an important PC company here. Then we can easily become a publicly listed company here...So it is not impossible to achieve the target between 1999 and 2000."

The British operation placed emphasis more on strategic planning. It had strategic planning meetings before preparing the annual budget and reviewing meetings each half year. Its top management has showed more aggressive and long-term views since 1994 than other European operations' leaders.

Overall, the Taiwanese operation kept more balance between long-term planning and short-term planning than did European operations.

6.4.5 Conclusion and Discussion

This proposition could be broadly supported by the research. Overall, Taiwanese operations focused more on long-term planning than their counterparts. This result was in conformity with the earlier findings of cultural scholars (such as Hofstede, 1980/1984, 1991; Hofstede & Bond, 1988; Chow et al., 1995; Ueno & Wu, 1993; and Harrison et al., 1994).

A significant interaction between area and company existed; that means different companies had varied results. To the multinational firms, different styles of financial control from the headquarters could significantly affect their operations' planning approaches. Tatung and Mitac were similar on the balance of short-term and long-term planning between their Taiwanese and European operations, but Lite-On and Acer had strong differences between their Taiwanese and European operations. Lite-On and Acer emphasised strategic planning or long-term visions and their managers in Taiwanese operation participated more in these than did their European counterparts.

6.5 Decentralisation

Proposition 1-4: Taiwanese operations will have less decentralisation than their European counterparts.

The purpose of this proposition is to compare the component of decentralisation between the Taiwanese and European operations within each case

firm. Three themes, including decentralised decision making system, independent decisions by managers, and financial and personnel control, will be observed for comparison from the main interview questions on decentralisation.

6.5.1 Tatung

Table 6.13 A Comparison of the Decentralisation between the Taiwanese and British Operations within Tatung

Items	Taiwanese operation	British operation
Decentralised decision making system		
•Form	Formal	Formal
• Following the rules	Strictly following	Except for important decisions
Independent decision by managers	Independent in routine decisions	Consultation with top management
Financial and personnel control	Controlled by headquarters	Controlled by top management

Basically, the Taiwanese and British operations followed a more centralised philosophy in running their businesses, but two operations still have some differences (Table 6.13). In Taiwan, the operating policies of the whole corporation were still handled by the chairman of the board of directors and significant decisions still needed to be made by the chairman³²; in the British operation, though senior managers could make individual decisions, most important decisions followed consultation with top management.³³ In Taiwan, the finance and senior managers were all controlled by central headquarters; in the UK, they used strictly central financial control and the president handled most decisions directly. The operating manager of the British operation felt that the president should decentralise more:

"I have a little feeling maybe he needs to be more decentralised. That is my observation.... I am sure that it is general observation. 80% of business can be swiftly dealt with, and then he can just concentrate on the significant issue."

Both operations had a formal budgeting process and clear decentralised decision-making systems according to the budget and financial figures, but because of the bigger plant scale and longer history the Taiwanese operation had better standard processing and more written documents.

As to making decisions independently, a slight difference existed between the two operations. Both operations preferred to discuss decisions at their operating meeting, and then the chairman or president finally approved them. In Taiwan, Tatung is a number one electronics corporation, so it needs to have a clearly decentralised decision making system and give limited scope to each responsibility centre to make

³² Quotation from the interview with the chief accountant of Tatung Taiwan operation.

³³ Quotation from the interview with the financial controller of Tatung (UK) Limited.

its decisions independently. The management control system in the corporation is a good internal control system, but as the company is so huge and making decisions in a profit centre may relate to many relevant departments or other factors, it is impossible to make decisions quickly and the timing is not good.³⁴

In the UK the president enjoyed more decentralisation than other directors of the profit centre in Taiwan, so he could make decisions more independently, but because he used the same centralised philosophy for running the business, each department head could not easily make decisions by himself. "Most important decisions are decided by top management."³⁵ According to the description given by the operating manager, there were various ways of forming decisions:

"The president will present the proposal and we will argue the proposal to a positive decision. That is one way. The other way is going to see the president and talking to him about your proposal. If he agrees, then I can take the action....The third way is when the president realises he must make the decisions and pass it down as instruction."

All in all, there was some similar decentralisation in both operations, but obviously the Taiwanese operation was more clear and independent than the British operation.

6.5.2 Lite-On

Table 6.14 A Comparison of the Decentralisation between the Taiwanese and British Operations within Lite-On

Items	Taiwanese operation	British operation
Decentralised decision making system		
• Form	Formal	Informal
• Following the rules	Strictly following	Flexible
Independent decision by managers	Independent	Less independent
Financial and personnel control	Controlled by headquarters	Controlled by top management

Strong differences on decentralisation existed between the Taiwanese and British operations (Table 6.14). The Taiwanese operation had a clear decentralised paradigm for each level of management and written documents to regulate the authority of each management level to approve decisions, especially with regard to finance.³⁶

Because of different environments including products, markets, manufacturing technologies, and competitors, each SBU in Taiwan Liton enjoyed relative

³⁴ Quotation from the interview with the chief accountant of Tatung Taiwan operation.

³⁵ Quotation from the interview with the financial controller of Tatung (UK) Limited.

³⁶ From the interview with the planning director of the Power Conversion Division of Taiwan Liton.

decentralisation with good discipline. They could make decisions very independently and enjoyed full decentralisation. "We have some rules regulating decentralised decision making, but basically we have a full decentralisation in routine activities."³⁷ The financial system was very powerful in the Taiwanese operation and each job was clearly described.

The British operation still lacked a clearly decentralised decision making system. Most people were still used to the central pyramid structure and did not like to make decisions themselves. Now the top management are striving to encourage their managers to make more decisions, just as its managing director said:

"We have tried to change the method of decision-making within the company. The old fashioned way in the UK was a very centralised pyramid structure. Business in general is levelling in nature, recutting levels, trying to achieve better results. The other way we try to do that is to allow more responsibility to the individual....What we are saying is you are perfectly capable of making a decision."

"We are encouraging people from the bottom to come up with the idea, and we are trying to make them believe that they participate in the running."³⁸ Its top management felt that their people should be more involved in the operation,³⁹ but from the view of its controller, because the budget was settled by department heads, if they had a budget, they could make decisions independently. In addition, it was necessary to make an independent decision if the answer was required very quickly.⁴⁰ However, total decentralisation in the British operation still needs continually to improve.

6.5.3 Mitac

Table 6.15 A Comparison of the Decentralisation between the Taiwanese and British Operations within Mitac

Items	Taiwanese operation	British operation
Decentralised decision making system		
• Form	Formal	Less formal
• Following the rules	Strictly following	Flexible
Independent decision by managers	Independent	Less independent
Financial and personnel control	Controlled by headquarters	Controlled by headquarters

³⁷ Quotation from the interview with the vice-president of the Power Conversion Division of Taiwan Liton.

³⁸ Quotation from the interview with the personnel officer of Lite-On Limited (UK).

³⁹ From the interview with the executive director of Lite-On Limited (UK).

⁴⁰ From the interview with the production manager of Lite-On Limited (UK).

Strong differences on decentralisation existed between the Taiwanese and British operations (Table 6.15). The Taiwanese operation had more decentralisation, each function had a clear authority, and each head could independently make decisions; but the British operation emphasised team work, and departmental heads could not easily make decisions independently.

Although the Taiwanese operation failed in its SBU organisation about 1991 and has been forced to restore functional organisation since that time, actually each function or department has still kept clear authorisation and each departmental head easily made independent decisions. Its controller said: "In the financial and accounting aspects, we completely follow the flow chart." The quality AVP also said: "Our decentralisation is clearly regulated in the documents of ISO #9001, and its technical AVP also described his authorisation:

"I feel I can independently make decisions 100%. That's complete decentralisation....I clearly understand what decisions belong to me. Unless the amount is very significant or out of budget, then I will report to top management by E-mail; otherwise, relating to my activities only I make a decision at once, even for a very significant amount if it is an urgent matter, I still make the decision myself, and that is the way which the top manager encourages us to take."

Because each department had clear power to make decisions independently and some functions even could directly report to top management, sometimes there was not enough co-ordination and team work in the operation.⁴¹

Compared to the Taiwanese operation, the British operation had an absolutely different management style in authorisation. It had less decentralisation and often made decisions by team. Each unit needed to consult the others and most of the decisions called for consultation with the managing director. Its logistics director said: "Because we are just a young company, we all work together for a long time. We make team decisions and we consult each other." Its managing director also described the situation:

"I control the payroll and important decisions. Other matters are responded to by each department and we use the matrix system under which each function or department needs often to contact relevant units at headquarters. Of course, they will give me E-mail copy and on some important decisions they will consult me in advance. Because I have handled this company since 1989, I know each function very well."

⁴¹ From the interview with the vice president of Hsin-Chu plant of Mitac international.

Objectively speaking, there were obvious differences in decentralisation between the two operations. The Taiwanese operation had greater decentralisation than the British.

6.5.4 Acer

Strong differences in decentralisation were found among operations (Table 6.16). The Taiwanese operation had a clearer decentralised system under which managers easily made independent decisions and their responsibilities were easily followed up. Its president said: "The company's philosophy is that after giving you the position you are fully authorised. The company would like you to bear the responsibility of success or failure." Its logistics manager said: "I feel I have great authority. Actually from my point of view, there are lots of decisions to be made at managerial level... I can directly make decisions and implement them at once." Its maintenance manager also had the same feeling: "I feel our company has very clear decentralisation in decision making, especially in finance and personnel.... The company fully authorises its managers so we can make decisions and do everything very quickly." Its chief accountant concluded: "Except for very significant matters, each departmental manager has high authority." They also set clear targets or criteria which covered financial indicators and non-financial indicators for each unit for evaluating purposes. As its president said: "The model for setting targets for our departments or centres is the same as headquarters' model setting targets for its BUs."

Table 6.16 A Comparison of the Decentralisation between the Taiwanese and European Operations within Acer

Operation	Taiwanese operation	Dutch operation	German operation	British operation
Decentralised decision making system • Form • Following the rules	Formal Strictly following	Less formal Flexible	Informal Flexible	Less formal Flexible
Independent decision by managers	Independent	Independent for Taiwanese managers	Less independent	Independent in sales department
Financial and personnel control	Controlled by operation's manager	Controlled by operation's manager and regional headquarters	Controlled by operation's manager and regional headquarters	Controlled by operation's manager and regional headquarters

In European operations, generally speaking their decentralisation system could not compare with the Taiwanese operation. As the European headquarters was at the Dutch operation and more senior Taiwanese managers stayed there, it had more decentralisation than other European operations. Most of the Taiwanese managers held

senior positions and they enjoyed the same decentralisation as the Taiwanese operation, but most Dutch managers at middle and basic level had a different feeling, "The decentralisation is not so high !⁴²"

In the German operation, except for those basic routine activities, the decentralisation was less and more informal. Its controller described the situation:

"The president uses a more centralised system. He prefers to be more involved and he is responsible... Under some situations he authorises some decisions to his subordinates but he needs to make sure they have an ability to carry them out first."

The president also agreed with the above description, and said:

"The decision making process is limited, but the more he engages and the more his learning and the more we see his ability to manage things, the more responsibility he will have to bear."

As to routine activities, there were clear processes. Some relevant regulations were even set in the MIS system, "the computer as a warner.⁴³"

In the British operation, "the basic organisation framework and responsibility divisions are very clear.⁴⁴" Each departmental head had his target and responsibilities and that was obviously different from other European operations. However, its top management emphasised team work, so independent decision seems a rarity, as its controller described:

"As to decentralisation, it depends on the department... As I see it, the Taiwanese way is that no one seems to make a decision but what happens is that people focus on their discussions and move the discussions to the result they want."

The marketing department enjoyed more decentralisation than the production department. Basically, they can make decisions quite flexibly within the decentralisation.

All in all, the Taiwanese operation obviously carries more decentralisation than European operations, and the three European operations showed lots of similarities on decentralisation.

6.5.5 Conclusion and Discussion

This proposition was rejected by the research and the direction is the reverse. Taiwanese operations significantly owned more decentralisation than their European

⁴² Quotation from the interview with the financial controller of Acer Computer B.V.

⁴³ Quotation from the interview with the managing director (second) of Acer Computer GmbH.

⁴⁴ Quotation from the interview with the managing director of Acer U.K. Limited.

counterparts. Tatung had only a slight difference, Acer and Lite-On had strong differences, and Mitac was in the middle.

According to Hofstede's (1980/1984, 1991) cultural theory, high power distance and collective societies have less decentralisation than low power distance and individual societies. In prior cross-cultural inter-firm research, many studies (such as Birnbaum & Wong, 1985; Lincoln et al., 1986; and Harrison et al., 1994) supported the theory. However, Chow et al. (1994) could not find enough support in his comparative study between Japan and America, and the main reason as he explained is that both national cultures do not have a large enough gap in terms of power distance in Hofstede's 100-point index. Owing to using the cross-border intra-firm comparison in this research, national culture is not the only influence upon the component of decentralisation. Relatively, leadership styles significantly affect operations' decentralisation through organisational controls. The research result fully showed the importance of the firm factor on the components of decentralisation. The next two chapters in the thesis will further discuss this topic. In addition to the leadership factors, some situational factors, including scale, age, history, and business focus as described in the chapter 9, may also have some influence on this proposition.

6.6 Formality

Proposition 1-5: Taiwanese operations will have less formality than their European counterparts.

The purpose of this proposition is to compare the components of formality between the Taiwanese and European operations within each case firm. Three themes, including documentation, implementing regulations, and standard budget process, from the main interview questions on formality will be observed for comparison.

6.6.1 Tatung

Generally speaking, a strong similarity on formality existed between the Taiwanese and British operations (Table 6.17). Both operations belong to the ISO 9001 plants which need basic operational manuals and documents. Both operations also kept a formal budgeting process; Taiwan's Tatung especially owned more standardised processes. The two operations used standard cost for costing and controlling purposes. In addition, both operations set formal rules and procedures for management purposes and strictly followed them.

Table 6.17 A Comparison of the Formality between the Taiwanese and British Operations within Tatung

Items	Taiwanese operation	British operation
Documentation		
•Operating manual	Highly formal	Highly formal
•Job description	Formal	Formal
•Written regulations	Formal	Formal
Implementing regulations		
•Following regulations	Strictly obeyed	Strictly obeyed
•Written evaluations	Formal	Formal
Standard budget process		
•Budget manual	Highly formal	Highly formal
•Process	Highly standardised	Standardised
•Written variance record	Formal	Formal
•Changing budget	Highly difficult	Highly difficult

In the British operation, most procedures involved written documents and each unit was asked to prepare written documents including job descriptions.⁴⁵ The company kept documents, regulations, and procedures very formal, but it still could be changed when managers felt they were not suitable.⁴⁶

The Taiwanese operation had prepared basic documents well since it got the first ISO 9001 in 1992. Most managers were very satisfied with its basic systems and documents within the operation. "Compared to other Taiwanese companies, the corporation already has an excellent system."⁴⁷ "Of course the documents were limited only at the basic level: as to high level operation, an understanding of the meaning of top management and their past instructions is necessary and it is not easy to keep documents on that."⁴⁸

Overall, strong similarities on formality existed between the two operations.

6.6.2 Lite-On

Some differences in formality existed between the Taiwanese and British operations (Table 6.18). Both operations got the certificate of ISO #9001, and they had basic written documents and rules on routine business, but because the British operation is currently changing its business culture and organisation, it needs more documents and rules now.

⁴⁵ From the interview with the executive director of Tatung (UK) Limited.

⁴⁶ Quotation from the interview with the managing director of Tatung (UK) Limited.

⁴⁷ Quotation from the interview with the production and sales manager of Taiwan electronic plant.

⁴⁸ Quotation from the interview with the director of Taiwan electronic plant.

Table 6.18 A Comparison of the Formality between the Taiwanese and British Operations within Lite-On

Items	Taiwanese operation	British operation
Documentation • Operating manual • Job description • Written regulations	Formal Formal Formal	Formal Formal in manufacturing unit Less formal
Implementing regulations • Following regulations • Written evaluations	Obeyed Formal	Flexible Less formal
Standard budget process • Budget manual • Process • Written variance record • Changing budget	Formal guideline Standardised Formal Under reasonable situations	Lacking a formal guide Flexible Informal Under reasonable situations

In the Taiwanese operation top management emphasised formality. Its rules, regulations, and procedures kept stable and it was not easy to change them unless there was a clear need for change.⁴⁹ Most of the tables and reports in the budget guideline for preparing a middle range plan were the same as in past years.⁵⁰

In the British operation, production followed a series of manufacturing and auditing procedures. "Without sufficient documentation, the scheme is dead!"⁵¹ However, as the firm was at the stage of changing organisational and management style, the formal documents were still not enough. What the top management was doing was documenting their business more, just as its managing director described:

"The hierarchy here is much stronger in the Northeast than other parts of the UK. I come from the south so it took me a very long time to understand the culture here....We had to make the culture change first, so we try very hard to introduce flexibility here to allow people to make decisions.....We now have to look very closely at the process. So what we are doing is we are documenting our process here... Anyway, our system has gone from formality to flexibility, and now we are moving back to formal-flexibility."

In finance, "We will have a more clear budget by department in the future"⁵²; and in personnel, "People can team together under the guidelines."⁵³ Formal structure, regulations, procedures, guidelines, and even job descriptions seem very necessary at this stage.

⁴⁹ From the interview with the associated vice-president (now vice-president) of the Power Conversion Division of Taiwan Liton.

⁵⁰ From the interview with the vice president of the Power Conversion Division of Taiwan Liton.

⁵¹ Quotation from the interview with production manager of Lite-On Limited (UK).

⁵² Quotation from the interview with the financial controller of Lite-On Limited (UK).

⁵³ Quotation from the interview with the personnel officer of Lite-On limited (UK).

All in all, the British operation is still changing its management style and preparing formal documents, so on formality, except for some production procedures and documents, it could not compare with the Taiwanese operation at the moment.

6.6.3 Mitac

Table 6.19 A Comparison of the Formality between the Taiwanese and British Operations within Mitac

Items	Taiwanese operation	British operation
Documentation		
•Operating manual	Formal manuals	Informal
•Job description	Formal	Less formal
•Written regulations	Formal	Less formal
Implementing regulations		
•Following regulations	Obedied	Flexible
•Written evaluations	Formal	Less formal
Standard budget process		
•Budget manual	Formal guideline	Lacking formal guideline
•Process	Standardised	Flexible
•Written variance record	Formal	Informal
•Changing budget	Under special situations	Flexible

There were different formalities between the Taiwanese and British operations (Table 6.19). The Taiwanese operation got its certificate of ISO #9001 in 1993 and their managers completely followed its regulations. They prepared more basic written documents than did the British operation and had a standardised budgeting process. Both operations used employees' self-evaluation every half year and if they had any opinion they could express it on the self-evaluation form, but the Taiwanese operation still owned a more formal review system than the British operation. Formality and discipline were better in the Taiwanese operation, but owing to the uncertain environment, some regulations still needed to keep on changing, as its quality AVP described:

"Mitac consider quality first. Basically, we follow our procedures, but sometimes due to facing a special situation we discuss together to bring out a temporary and special procedure."

Its financial manager also talked about the situation:

"We strictly follow the procedures or regulations in financial and accounting areas, but in other areas because the corporation policy is not clear enough, I feel some things change often. That means it is still very volatile and flexible."

Compared to the Taiwanese operation, the British was more informal and flexible. "Except for personnel regulations, most of them are non-written and easily changed at managerial meetings."⁵⁴ "If we feel it is better to change, then we change it

⁵⁴ Quotation from the interview with the assistant controller of Mitac Europe Limited.

quickly.⁵⁵ Only a few regulations, rules, and procedures could be maintained for a long time in the company, but in general they obeyed those rules in day-to-day operation.⁵⁶ It might be the strategy of the managing director, because he came from Tatung (UK) Company and he wanted to create a competitive managing strategy. He commented:

"Only a few regulations are kept as written documents. We keep informal and greatly flexible. Each function can discuss with headquarters by E-mail any time and change their actions and I only watch some important things ... Compared to the Tatung (UK) company which is more hierarchical, we are more flexible and informal."

Overall, different formalities existed between the two operations, and the Taiwanese operation obviously was more formal than the British operation.

6.6.4 Acer

Table 6.20 A Comparison of the Formality between the Taiwanese and European Operations within Acer

Items	Taiwanese operation	Dutch operation	German operation	British operation
Documentation				
•Operating manual	Formal	Informal	Informal	Informal
•Job description	Less formal	Informal	Informal	Informal
•Written regulations	Less formal	Informal	Informal	Informal
Implementing regulations				
•Following regulations	Obedied	Flexible	Obedied	Flexible
•Written evaluations	Informal	Informal	Informal	Informal
Standard budget process				
•Budget manual	Formal guideline	Informal guideline	N/A	N/A
•Process	Standardised	guideline	Flexible	Less standardised
•Written variance record	Formal	Flexible	Informal	Informal
•Changing budget	Difficult to change targets	Informal Difficult to change targets	Difficult to change targets	Difficult to change targets

* N/A: No budget guideline

There was limited formality in the Acer group. Most managers emphasised flexibility and most operations lacked written documents and formal procedures. Among these operations, the Taiwanese operation still used more basic documents and formal procedures than European operations (Table 6.20). Although it was set up just two years ago, originally it belonged to a section of Acer International Corporation plant which owns a certificate of ISO #9001. So compared to European operations, it still used basic operating documents.

European operations lacked formal documents and operational procedures. The president of the European headquarters said: "We discuss and set some basic common

⁵⁵ Quotation from the interview with the logistics director of Mitac Europe Limited.

⁵⁶ From the interview of the controller with Mitac Europe Limited.

guidelines, but we do not regulate in detail." The general controller of European headquarters also said: "At the moment Acer puts more emphasis on people than on the system. So until now it still lacks an integrated system. Different managers have different management styles and the results are absolutely different." Because IT products changed so fast, Acer needed to choose the flexible approach for survival.⁵⁷

The personnel manager of the Dutch operation accurately described the situation:

"All kinds of regulations in the company are very changeable, that is, I will say also flexible, and that is also reasonable because we never have long-term planning. In my opinion, we do not have enough formal rules."

In the German operation, documentation was considered very necessary. Its controller felt there was not enough paper work and he suggested:

"From the financial view, I think European headquarters need to set a decentralised system in decision making and clearly set out the game theory. We lack those documents at present and you can not believe people instead of the system."

Once having rules, its managers followed them very well. Its personnel officers said: "The regulations are obeyed in day to day operation, but it is possible to change. If conditions change then each departmental head can reflect some of the actual conditions."

The British operation had a few more written documents and budget procedures than did the Dutch and German operations. Its controller confidently said: "Certainly this company is a relatively formal company," and its managing director described the situation:

"Taiwanese managers do not always care and also cannot design the procedures and processes but only care about the result. Here if you cannot carry out successfully the procedures and processes, a series of problems will happen."⁵⁸

How to use minimum processes and personnel to achieve the maximum output and let the customers get maximum information is the manager's responsibility."

Apart from production and finance, in other functions, especially in marketing, regulations were unwritten and were easy to change. The marketing department faced a strongly fluctuating environment without guidance, as its marketing director described: "The company is very flexible and may be too flexible: we have no strong guides to help us. We are still slowly learning."

⁵⁷ From the interview with the logistics director of Acer Computer B.V.

⁵⁸ The content is almost the same as the interview with the vice president of Europa Magnetic Co.

All in all, even though formality in Acer was not strong, its formality in the Taiwanese operation still differed strongly from its European operations. As to the difference among European operations the interview data show only a few differences.

6.6.5 Conclusion and Discussion

This proposition was rejected by the research and the direction is the reverse. Taiwanese operations were significantly more formal than their European counterparts. However, the factor of company still significantly affected the difference. With the ranking of Tatung, Lite-On, Mitac, and Acer, the differences were stronger and stronger. Obviously, financial control factors and some situation factors such as business focus and the scale of operation significantly affected the degree of formality.

Prior research using cross-cultural inter-firm comparison on this component showed a complexity of findings. Some scholars (such as Chow et al., 1994; Chow et al., 1996) were supported by their findings, some (such as Birnbaum & Wong, 1985; Ueno & Sekaran, 1992; Ueno & Wu, 1993) were not, and some (Van et al., 1992; Harrison et al., 1994) even had equivocal findings. National culture seems difficult to use as a single criterion to predict the direction of the component of formality. The extent of formality seems more related to control styles, especially within a multinational firm. The results of the research showed the importance of the firm factor on the component of formality. In addition, the extent of formality needs to match situational factors, especially in an operation's scale and business focus.

6.7 Controllability-filters

Proposition 1-6: Taiwanese operations will have fewer controllability-filters than their European counterparts.

The purpose of this proposition is to compare the component of controllability-filters between the Taiwanese and European operations within each case firm. Three themes, including evaluating criterion, considering uncontrollable factors, and changing objective, will be observed for comparison from the main interview questions on controllability-filters.

6.7.1 Tatung

Table 6.21 A Comparison of the Controllability-filters between the Taiwanese and British Operations within Tatung

Items	Taiwanese operation	British operation
Evaluating criterion	Focusing on budget objectives	Focusing on budget objectives
Considering uncontrollable factors	Little consideration	Little consideration
Changing objective	Difficult to change	Difficult to change

Strong similarities on controllability-filters existed between the Taiwanese and British operations (Table 6.21). Neither operation automatically took account of the uncontrollable items in their evaluating system, but responsible managers could ask for a revision of the objective or full explanation in the operating management meeting. Normally, unless the reasons for a revision were very strong it was impossible for approval to be granted, especially in the Taiwanese operation. The director of the Taiwanese operation said:

"Headquarters could not consider uncontrollable items for you, so if there are issues beyond your control you need to offer enough reasons to ask for a revision of the target. If top management agrees, the objective can still be revised... So you need to set your objective carefully, and if you have already set the objective you need to strive to achieve it."

Compared to the Taiwanese operation, the managers of the British operation had more opportunities to explain. One of its managing directors said: "Managers can always explain in the meeting and we present the budget performance in the operating meeting." That means it is still not easy to revise their targets. Of course, if some assumptions or situations changed, he could explain in the meeting, but basically he needed to think how to achieve his budget.⁵⁹

6.7.2 Lite-On

Table 6.22 A Comparison of the Controllability-filters between the Taiwanese and British Operations within Lite-On

Items	Taiwanese operation	British operation
Evaluating criterion	Focusing on strategic objective and accounting indicators	Focusing non-financial indicators
Considering uncontrollable factors	Considering uncontrollable factors	A little consideration
Changing objective	Reasonable to change	Accepting managers' explanations

Although the control function was not strong in Lite-On group, there were still strong differences on controllability-filter between Taiwanese and British operations

⁵⁹ Quotation from the interview with the operating managers of Tatung (UK) Limited.

(Table 6.22). In the Taiwanese operation, they defined and considered the controllability-filters more clearly and reasonably when setting the strategic planning⁶⁰. When the budget objective was not reached, if there were uncontrollable factors the manager could give reasonable explanations. If these were good reasons, it was easy to accept the explanations. "The top management cares about what work attitude you have or whether you make right decisions, and if there are problems, we solve them in meetings."⁶¹

Compared to the Taiwanese operation, the British operation's budget was prepared on the plant-wide basis. The budget lacked the units' objectives or standards so that the controllability-filters were not necessary to departmental managers on the evaluation of budget performance. For special events on the plant-wide basis, the operation still considered uncontrollable items such as material costs could be affected by outside supply, time, and volume, and they also accepted its managers' explanations⁶².

Overall, although the two operations considered controllability-filters, the Taiwanese operation took them more clearly, formally and in systematised fashion than did the British operation.

6.7.3 Mitac

Table 6.23 A Comparison of the Controllability-filters between the Taiwanese and British Operations within Mitac

Items	Taiwanese operation	British operation
Evaluating criterion	Focusing on profit target	Focusing on profit target
Considering uncontrollable factors	Little consideration	Little consideration
Changing objective	Reasonable to change	Accepting managers' explanations

There were no obvious differences on controllability-filters between the Taiwanese and British operations (Table 6.23). Except for the profit target, neither operation cared too much about the individual variance between budget and actual amount, and it was easy to explain uncontrollable items at the meetings. Because of the uncertain factors and departmental heads caring less about budgeting, there were always significant differences between the actual and budget figures on individual items.⁶³

In the British operation, "the control system was only considered for the whole company and the system lacked deep analysis. Normally each measure was compared

⁶⁰ From the interview with the planning director of the Power Conversion Division of Taiwan Liton.

⁶¹ Quotation from the interview with the deputy controller of Taiwan Liton.

⁶² From the interview with the financial controller of Lite-On Limited (UK).

⁶³ Quotation from the interview with the controller of Mitac International.

with the previous year's figure. The uncontrollable items were not inspected in the system.⁶⁴ The evaluation of managerial performances always depended on the judgement of the managing director. The managing director was in direct touch with each department and the budget criterion was useless for evaluating managerial performance.⁶⁵

Overall, though the Taiwanese operation had more space in explaining those uncontrollable items, basically both operations kept similar on the component of controller-filters.

6.7.4 Acer

Some differences on controllability-filters existed between different operations (Table 6.24). Generally speaking, the British and Taiwanese operations considered more controllability-filters under special conditions than did Dutch and German operations.

Table 6.24 A Comparison of the Controllability-filters between the Taiwanese and European Operations within Acer

Items	Taiwanese operation	Dutch operation	German operation	British operation
Evaluating criterion	Focusing on bottom line	Focusing on bottom line	Focusing on bottom line	Focusing on bottom line and non-financial indicators
Considering uncontrollable factors	Little	Little	Little	Considering in special cases
Changing objective	Considering in special cases	Difficult	Highly difficult	Considering in special cases

In the Taiwanese operation, although managers needed to bear "the responsibility of success or failure", if there was a special uncontrollable item, managers could still possibly ask to revise their targets, as its logistics manager said:

"I set targets for my subordinates, but I still look at whether any abnormal matter happens. In addition, if there is any uncontrollable item we can report it at the monthly operating meeting."

In the Dutch operation, top management did not consider uncontrollable items too much, as its president described:

"Normally we do not consider uncontrollable items in the performance evaluation, but sometimes we ease difficulties. It is not easy to classify controllable and noncontrollable items in this industry and if we consider them we always have a lot of arguments to sort out!"

⁶⁴ Quotation from the interview with the controller of Mitac Europe Limited.

⁶⁵ Quotation from the interview with the controller of Mitac Europe Limited.

Its financial controller agreed and said: "Under special conditions they can discuss and argue with us."

In the German operation, top management did not normally consider uncontrollable items in performance evaluation. "Everyone needs to take care of the bottom line and that is our main responsibility and mission."⁶⁶ Its controller said: "To us even the currency exchange is still a controllable item."

In the British operation, top management considered more uncontrollable items than did other European operations. Its controller said: "We consider uncontrollable items and discuss with managers", but he continued: "You cannot make too much allowance for the uncontrollable items, otherwise these items will go on." Its marketing director agreed: "Generally speaking, the bottom line is important, but not absolutely important. The company is still a small company and if we sustain a loss we can still show our future trend."

The above interview data show that the difference between the Taiwanese operation and the European operations is not significant.

6.7.5 Conclusion and Discussion

This proposition was rejected by the research and the direction is the reverse. Overall, Taiwanese operations used more controllability-filters than their European counterparts. Further checking of individual companies showed that except for Lite-On which reflected strong differences and Tatung which showed a strong similarity, Mitac showed a similarity and Acer had some differences but these were not significant.

It seems difficult to use the factor of national culture as a single criterion to predict the direction of controllability-filters. The prior studies of Chow et al. (1994) and Van et al. (1992) could not be supported. The proposition seems to reflect this situation. In the research, even Taiwanese operations used more controllability-filters than their European counterparts. The firms showed obvious differences. A firm's control style significantly affects the component of controllability-filters within a firm. With a tight control style, Tatung showed a strong similarity between its Taiwanese and European operations. In addition, the characteristics of the operations' head and the backgrounds of operations may have some influences on the proposition. The case of Lite-On with strong differences between its Taiwanese and European operations reflects this situation.

⁶⁶ Quotation from the interview with the managing director (first) of Acer Computer GmbH.

6.8 Feedback Extent and Frequency

Proposition 1-7: Taiwanese operations' managers will employ a more relaxed feedback system, including frequency and extent, than their European counterparts.

The purpose of this proposition is to compare the component of feedback extent and frequency between the Taiwanese and European operations within each case firm. Three themes, including main means of feedback, feedback frequency, and feedback extent, from the main interview questions on feedback extent and frequency will be observed for comparison.

6.8.1 Tatung

Table 6.25 A Comparison of the Feedback Extent and Frequency between the Taiwanese and British Operations within Tatung

Items	Taiwanese operation	British operation
Main means of feedback		
• Means	Performance reports	Performance reports
• Performance indicators	Multiple indicators	Focusing on sales & profit targets
Feedback frequency	Weekly and monthly basis	Weekly and monthly basis
Feedback extent		
• Costing	Standard costing	Standard costing
• Variance analysis	Monthly	Monthly
• Cost control	Highly tight	Highly tight

Basically, both operations had a formal warning system, and strong similarities between the two operations (Table 6.25). Both operations used standard cost for costing and controlling purposes, and they used performance reports as means of feedback. The budget was always followed up in a short time span and discussed in the operational meeting. The executive director of the British operation said :

"We examine the objective attainment, especially the sales objective, at the operating meeting each week, and we examine the expense and profit and loss per month. In the meeting we always analyse the differences between budget and actual results."

The Taiwanese operation was somewhat more formal than the British operation. They used multiple indicators to appraise the operating result of independent centres, including sales(24%), profit (24%), rate of return of investment (24%), inventory management (14%), and human resources efficiency (14%). The corporation used six grades to evaluate each indicator performance and gave centres different incentives. In addition, the function of the operating meeting was also more formal than in the British operation, just as the chief accountant of the Taiwanese operation described the reality:

"The monthly performance reports will be sent to each unit's head and those reports will still be reviewed at the monthly operating meeting. The committee members belonging to the operating meeting will go to each plant for face-to-face communication. Besides, each plant director needs to report at the operating meeting each quarter."

Compared to the Taiwanese operation, the British operation was less formal but more flexible. In addition to the weekly meeting, if there were special important events they would hold "a lot of unscheduled meetings⁶⁷" to discuss. The senior manager focused more on the budget variances.

Overall, the two operations had a strong feedback function, but this was somewhat more formal in the Taiwanese operation than in the British operation.

6.8.2 Lite-On

Table 6.26 A Comparison of the Feedback Extent and Frequency between the Taiwanese and British Operations within Lite-On

Items	Taiwanese operation	British operation
Main means of feedback • Means • Indicators	Performance reports Multiple financial indicators	Operating reports Multiple financial indicators
Feedback frequency	Monthly and weekly basis	Monthly basis, but MIS could not support on-time information.
Feedback extent • Costing • Variance analysis • Cost control	Actual costing Monthly, about 10%-20%. Less tight	Actual costing Informal, over 20%. Loose

There were some similarities and differences on feedback extent and frequency between the Taiwanese and British operations (Table 6.26). Both had weekly and monthly meetings for discussing and reviewing their operating results, and prepared monthly budget performance reports as a means of feedback.

However, comparing the feedback extent, obviously the Taiwanese operation did better than the British. The Taiwanese operation followed up each week, month, and half year, and its MIS maintained and controlled each department's expense.⁶⁸ They focused not only on the comparison between actual and budget figures but also the feasibility of attaining the budget for the next month or quarter.⁶⁹ In the British operation, because of lacking responsibility units in budgeting, the budget feedback was not easy to exercise. In addition its MIS still could not produce relevant information on time⁷⁰, so it was difficult to produce feedback efficiently.

⁶⁷ Quotation from the interview with the financial controller of Tatung (UK) Limited.

⁶⁸ From the interview with the planning director of the Power Conversion Division of Taiwan Liton.

⁶⁹ From the interview with the vice president of the Power Conversion Division of Taiwan Liton.

⁷⁰ From the interview with the financial controller of Lite-On Limited (UK).

Objectively, the budget control was not too strict in both operations, especially in the British operation. In the past two years the budget variances in Taiwan were about 10% to 20%⁷¹, but in the British operation they were often more than 20%⁷². The associate vice president of the Taiwanese operation described the situation:

"I feel the budget control system is not really good, no real budget control. Although the capital budget and labour budget are strictly controlled by each departmental budget, with other items we lack a real system or person to control."

In the British operation, the executive director also felt the financial and budget control were not enough for the company, and he was trying to teach the management team more financial control.

Generally speaking, the two operations had some similarities in budget control style, but on the feedback extent, the Taiwanese operation did somewhat better than the British operation.

6.8.3 Mitac

Objectively, the group strongly emphasises feedback operating results, but it focused more on the information of the actual result than on budget performance (Table 6.27). Essentially, the feedback system lacked linkage with responsibility and motivation, so the real effect of feedback on budget performance was very low in both operations, especially in the British operation. The two operations had almost the same feedback frequency containing monthly operating meeting and weekly plant meeting and all successfully used MIS and E-mail systems quite well, but there were a few differences on the extent of feedback.

Table 6.27 A Comparison of the Feedback Extent and Frequency between the Taiwanese and British Operations within Mitac

Items	Taiwanese operation	British operation
Main means of feedback • Means • Indicators	Performance reports Multiple financial indicators	Operating reports Focusing on sales & profits
Feedback frequency	Monthly and weekly basis	Monthly and weekly basis
Feedback extent • Costing • Variance analysis • Cost control	Actual costing by products & units Monthly Less tight	Actual costing by whole operation Monthly Lacking segment reports to control

In Taiwan, the monthly reports called the "green report" contained lots of financial information and were designed for different management levels. They

⁷¹ from the interview with the controller of Taiwan Liton.

⁷² From the interview with the executive director of Lite-On Limited (UK).

covered financial reports, ten main customers, inventory and so on, and they were sent to different management levels through the E-mail system and MIS system, and to a higher level more concisely.⁷³ In addition, in its "green report" they also selected some important figures compared with the previous month for the convenient purpose of a managers' review.

Although the feedback extent in the Taiwanese operation was very broad and covered critical strategic factors, for budget performance it was still not enough. The budget function in planning was better than that in controlling.⁷⁴ The financial manager also directly described the condition:

"I felt we did not follow the budget. The actual is actual and budget is budget. Although the president is very concerned about the monthly operating result, the execution of budget is not good. All middle and lower managers are unconcerned with the budget, though sometimes they talk of it in meetings but that's all."

In the British operation the feedback was not so detailed. It compared only on the basis of the whole operation. In addition to the financial reports, it was required to send to headquarters a monthly "BEPaid" report which is a group's uniform report, covering some critical strategic operating factors. As the budget system lacked segment objectives the performance report was useless for appraising managers' performance. Its controller said that they always judged the performance by experience or by comparing with previous years.⁷⁵ The monthly report reflected only whole company performance and its managers needed to push their subordinates by other channels, especially for regular review targets, as its managing director described:

"I always give my subordinates clear targets and ask responsible managers to finish them within a reasonable period. Normally I will ask about their progress at the weekly Monday meeting. We need continually to push their work."

All in all, both operations kept similar on the component of feedback extent and frequency.

6.8.4 Acer

Although the totally controlling function was not strong in Acer, strong differences on the variable of feedback extent and frequency still existed between operations (Table 6.28). The British and Taiwanese operations had deeper feedback than the German and Dutch operations.

⁷³ From the interview with the controller of Mitac International.

⁷⁴ From the interview with technical AVP of Hsin-Chu plant of Mitac International.

⁷⁵ From the interview with the controller of Mitac Europe Limited.

In the Taiwanese operation, the monthly operating meeting which all department heads were required to attend discussed and explained monthly performance. If there was significant variance, top management always asked the manager to explain. Its plant director said: "Because we already fully understand all conditions in the meetings under a regular reviewing system, the variances at the end of year are not important. Ultimately, the result will determine everything."

Table 6.28 A Comparison of the Feedback Extent and Frequency between the Taiwanese and European Operations within Acer

Operation	Taiwanese operation	Dutch operation	German operation	British operation
Main means of feedback • Means • Indicators	Performance reports Multiple financial indicators	Performance report Focusing on bottom line	Operating reports Focusing on bottom line	Operating reports Multiple financial and non-financial indicators
Feedback frequency	Monthly and weekly	Monthly	Monthly	Monthly and quarterly
Feedback extent • Costing • Variance analysis • Cost control	Actual costing Monthly Reasonably tight	Actual costing. Quarterly Less tight	Actual costing Irregular Loose	Actual costing Irregular Less tight

Its management information system supported offering operating information to each level of management. The maintenance manager was satisfied to get the data of profit or loss of parts and lead time information⁷⁶, but until now it had only whole company data and reports and lacked overhead data in departmental detail.⁷⁷

In the Dutch operation, the monthly reports were a basic means of feedback, but the budget feedback was more slack than other operations. They looked at their budget variances on a quarterly basis, and top management always cared about the bottom line figures. "If the bottom line is profitable, the content is not so important."⁷⁸ At the moment except for the profit target, the budget control function is quite weak. Because the budget was so rapidly out of date, it could not be a good warning system. The only warning system is if you compare with last month.⁷⁹

In the German operation, the monthly operating reports were a basic feedback means, but top management focused on some critical indicators for management purposes, as its managing director said:

⁷⁶ From the interview with the maintenance manager of Acer Global Inc.

⁷⁷ From the interview with the chief accountant of Acer Global Inc.

⁷⁸ Quotation from the interview with the financial controller of Acer Computer B.V.

⁷⁹ From the interview with the financial controller of Acer computer B.V.

"The bottom line about our profit and loss is the most important figure, but there are some key indicators and these indicators we have to review every month, like accounts receivable, revenue, inventory, etc. Based on these things we have to take actions."

Its controller analysed budget variances covering the changing trend and whether they could achieve the expectation the following month for top management and Dutch headquarters per month, but because of lacking departmental budgets, the feedback was only on the whole company basis. Basically, it lacked a strong administrative management to assist its budget control.

Compared to the other two European operations, the British operation had a better feedback system. They set strategies for their company and set different targets or indicators for different departments, even key persons, for evaluating purposes. In addition, they set some incentives closely relating to their performance. The feedback in the operation was broader and deeper than in other European operations. Its marketing director said: "We feedback about strategies based on annual budget", and its controller also said: "We have monthly meetings to review operating results, and we feedback the results to staff each quarter, and we have strategic review meeting per half year." However, owing to preparing a budget on a whole company basis, basically, the British operation still lacked a close relation between departmental budget performance and evaluation.

All in all, though lacking a good control system in Acer, the Taiwanese and British operations still had obviously better feedback than the German and Dutch operations. Overall, the interview data show the differences between the Taiwanese and the European operations are still significant.

6.8.5 Conclusion and Discussion

This proposition was rejected by the research and the direction is the reverse. In total, the Taiwanese operations had a better feedback system than their European counterparts and the variance is significant. Different extents of variances happened in different operations. Acer had strong differences between its Taiwanese operation and European operations, then Lite-On, and Tatung and Mitac had similar feedback systems.

It seemed difficult to use the factor of national culture as a single criterion to predict the direction of the component of feedback extent and frequency across cultures. Prior studies concerning inter-firm cross-cultural research had equivocal findings (such as Van et al., 1992; Chow et al., 1996) on this component. This component was significantly influenced by managerial control style, especially within

a multinational firm. In this research, Tatung and Mitac had a tighter financial control than the other cases, so they showed more similarities on this component than Acer and Lite-On. In addition, the scale of operation also seemed to affect results significantly. Because Tatung's European operation was on an appropriate scale, it showed a strong similarity to the Taiwanese counterpart.

6.9 Contingent Rewards

Proposition 1-8: Taiwanese operations will give more contingent rewards than their European counterparts.

The purpose of this proposition is to compare the component of contingent rewards between the Taiwanese and European operations within each case firm. Two themes, linkage between budget and financial rewards and content of contingent rewards, will be observed for comparison from the main interview questions on contingent rewards.

6.9.1 Tatung

Table 6.29 A Comparison of the Contingent Rewards between the Taiwanese and British Operations within Tatung

Items	Taiwanese operation	British operation
Linkage between budget and financial rewards <ul style="list-style-type: none"> •Extent of linkage •Rewarding unit •Rewarding people 	High Profit centres Whole employees	Low Sales and marketing units Sales people & senior Chinese managers
Content of contingent rewards <ul style="list-style-type: none"> • Content • Percent of contingent rewards • Difference between units or individuals 	Monthly bonus (quarterly individual's performance) + year-ended bonus (centre's operating performance) 15%-25% of pre-set salary Small	<ul style="list-style-type: none"> • Salesmen: commission • Senior Chinese managers: same as Taiwan's system • Salesmen: 30%-40% of their total pay • Senior Chinese managers: 15%-25% of pre-set salary) Significant between sales people

Because of different compensation structures, strong differences in contingent rewards existed between the Taiwanese and British operations (Table 6.29). Taiwanese operations benefited from a contingent rewards systems, but in British operations, except for the marketing department, almost all employees' salaries were pre-set.

In the Taiwanese operation, whether the target was attained or not could affect salary adjustment and bonus. The bonus was always issued by the plant, a profit centre.⁸⁰ However, within the same operation, there was only a little difference, as its chief accountant felt:

"Although we set account for different product lines within the plant, performance evaluation often only considers the whole plant so sometime it is unfair to those units in which employees work harder."

Compared to other case firms, the contingent rewards in Tatung showed a smaller gap between different operations and different level managers. The chief accountant of the Taiwanese operation explained the reason:

"If the independent accounting doesn't match the incentive, there is no meaning. But because Tatung have more than ten plants, some of which are good and others not, so top management face a dilemma. If all operations are independent companies, it is easy to have different incentives; otherwise, they deeply fear affecting the employees' morale. The whole corporation did well because it is the result of team work, so there is only a small difference in incentive between good units and others."

The Taiwanese operation used a strictly quarterly evaluating system which divided performance into four grades which would affect employees' monthly performance bonus, even the year-end bonus and salary adjustment. On average, the total contingent rewards made up about 15% to 25% of pre-set pay.

Most of the British companies had no bonus system. So although market employees had commission which made up about 30% to 40% of their total income, the rest of the employees had no bonus. However, Chinese managers could still follow the Taiwanese compensation system and enjoy the same incentives. In addition, if the company had good profits, top management would informally give senior managers some symbolic bonus. To most people, if they did well, the only reward was a rise in their future salary. As to the bonus, just as its operating manager said:

"British people do not look for a huge cash bonus or gift, but they just want to hear: 'Thank you very much, good job! It is a Christmas turkey or something.' There's no need for even 5 pounds to say thank you, but it just needs the words 'thank you.' It feels so good! It is so important!"

Overall, from interviewing and observing results, the research found that the Taiwanese operation had more contingent rewards than the British.

⁸⁰ Quotation from the interview with the director of Taiwan electronic plant.

6.9.2 Lite-On

Strong differences in contingent rewards existed between the Taiwanese and British operations (Table 6.30). Because of the differences of compensation structures and operating results, the British operation had only the basic monthly salary for its employees but the Taiwanese operation's employees enjoyed abundant bonuses in recent years.

Table 6.30 A Comparison of the Contingent Rewards between the Taiwanese and British Operations within Lite-On

Items	Taiwanese operation	British operation
Linkage between budget and financial rewards •Extent of linkage •Rewarding unit •Rewarding people	High Whole company Whole employees	Extremely low Lacking incentive N/A*
Content of contingent rewards • Content • Percent of contingent rewards • Difference between units or individuals	Bonus formula: basic bonus + performance effect + tenure factor About 30% of salary Small	So far no incentive, just monthly salary All pre-set salary N/A

* N/A: not adaptive

In the Taiwanese operation, the better the budget performance of the company, the better the bonus. According to its vice-controller's estimate, the bonus totally accounted for about 30% of regular salary in the previous three years. Total bonus covered basic bonus, performance effect, and tenure elements, and performance effect also affected future salary adjustment and promotion. The managers in higher positions had more bonuses, and a few senior managers even had special and confidential bonuses. As to how to determine the employees' performance, its vice president said:

"The bonus is based on the corporation's actual performance. The departmental heads cannot decide their subordinates' performance alone. We rank the sequence in each SBU, and then re-rank in the whole corporation according to A, B, C, and D, four grades. Each grade has different bonuses. The rating is very important to future promotion."

In the British operation, because of the historical background of its development by the trade union, the company employees' incomes were all pre-set, as a monthly salary. In addition, due to continually suffering operating losses, its employees' salaries had already stayed the same for nearly four years. The operation's revenue was better and better, and the top managers estimated the operation could become profitable for the company in 1996. All employees hoped to have better

salaries. As to the bonus system, its senior managers still remained a bit conservative. Its managing director said:

"I do not very greatly believe money is a big motivation. Of course it can help.... But if you congratulate someone for a great job , you can do that often and that is much better motivation."

Its personnel officer also had the same feeling: "If the incentive system is a bonus, there is still a risk. Sometimes, people will be lazy when there is no bonus." However, its top managers are studying to set up a small incentive scheme for 1997, but the scheme will link two things: achieving personal objectives and company performance.⁸¹

6.9.3 Mitac

Table 6.31 A Comparison of the Contingent Rewards between the Taiwanese and British Operations within Mitac

Items	Taiwanese operation	British operation
Linkage between budget and financial rewards •Extent of linkage •Rewarding unit •Rewarding people	High linkage to profit Whole company Whole employees	High linkage to profit Sales unit Salesmen and senior managers
Content of contingent rewards • Content • Percent of contingent rewards •Difference between units or individuals	Staff : year-ended bonus Workers: Monthly bonus Staff: Two months bonus (about 15%-20% of salary) Workers: about 15%-30% of salary Small, but larger between workers.	Salesmen: commission Senior managers: bonus Other people: sometimes small bonuses Salesmen: about 20%-30% of total pay Senior managers: 0.5-2 months' pay Significant between the senior managers and between the sales people

There were obvious differences in contingent rewards between the Taiwanese and British operations (Table 6.31). On system design, the Taiwanese operation had more contingent bonus than the British operation. Its workers had a monthly quality and efficiency bonus, about 15%-30% of salary, and its staff also had a bonus of at least two months' pay depending on the corporation's actual operating results and if the corporation made money they could enjoy more special bonuses. They evaluated their employees' performance by four grades, and essentially the bonus would be affected by their grades. However, owing to the corporation's continually suffering loss in the past few years, actually most of its employees got only two months' bonus, which is the minimum level in the Taiwanese computer industry, and there was very little

⁸¹ From the interviews with the managing director and the executive director of Lite-On limited (UK).

difference of bonus among the employees. As to the budget performance for units, due to lacking responsibility centres, there was no transparent system to build a formula between budget performance and bonus within the corporation. Basically, the contingent rewards were built on the actual operating result of the whole corporation, not on the budget performance. One of its AVPs described the situation:

"Because we do not use the profit centre system, we lack a transparent system to build a formula between budget performance and bonus. So how much bonus one gets depends on the boss at present. Maybe he will give more to a few departments which have better performance."

Another AVP also had the same feeling: "There is no link between budget and my rewards. At present there is no link between budget and bonus." Its financial manager was a little depressed and she said: "There is no direct relation between the budget and incentive. Until now I have not seen any feedback reward from budget control or saving ... No one cares whether the budget was achieved."

Compared to the compensation system of the Taiwanese operation, the British operation had quite a simple structure. Except that salesmen had a commission of about 20-30% of their total pay based on their performance, there was no formal bonus system for its workers and staff. Salesmen had only a simple sales function which straightway determined their commission, but their managers had a complicated bonus structure, dependent on attaining sales-target, gross margin, and sales mix. Senior managers cared more about the company performance, because there was a close relation between budget performance and their bonus. Talking about the bonus system, its managing director said:

"We follow the system of most British companies and some from the Tatung (UK) company. Only senior managers are closely related to budget performance....

My bonus directly relates to my budget performance. Other people have only a minor relation to the budget performance, but if they have super performances they can get a bigger bonus...Generally only senior managers can enjoy bonuses, not lower managers, staff and workers, but if our performance is good I can ask headquarters to permit giving a little bonus for motivating purposes."

Senior managers' bonus was about 0.5 to 2 months in the past two years, but senior Chinese managers could enjoy bonuses near to those in the Taiwanese operation.

Basically, the British operation had only small bonus rewards for their managers, and lacked a transparent system to evaluate managers performances just as its controller described:

"The managers lack clear targets to motivate themselves and nobody cares about the company objective, except maybe the managing director."

Overall, the Taiwanese operation originally had better contingent rewards than the British operation, but owing to suffering losses in recent years its employees could only get the minimum guaranteed two months bonus which most people regard as a part of routine salary. Conversely, the British operation could still maintain the company in profit for the past three years and its managers then had some bonuses for motivating. It could not obviously reflect the original spirit of the bonus system between the two sides at this stage. In addition, both operations lacked a transparent evaluating system, especially in the British operation, to evaluate its managers' performances.

6.9.4 Acer

Table 6.32 A Comparison of the Contingent Rewards between the Taiwanese and European Operations within Acer

Items	Taiwanese operation	Dutch operation	German operation	British operation
Linkage between budget and financial rewards •Extent of linkage •Rewarding unit •Rewarding people	Low (based on actual profit) Whole company Whole employees	Low (based on actual profit) Marketing unit Senior managers & marketing staff	Low (based on actual profit) Marketing unit Senior managers, salesmen, and Chinese managers.	Low (based on different indicators) All units Most staff (key people)
Content of contingent rewards • Content • Percent of contingent rewards •Difference between units or individuals	Promised bonus, performance bonus, & premium 15%-30% of pre-set pay Small, but larger between managerial levels	Salesmen: commission Senior managers: Taiwan's system Salesmen: 20%-35% of total pay Senior managers: 1/3 of total pay Other: symbolic bonus Significant between sales people	Salesmen: commission Core manages: bonus Chinese managers: Taiwan's system Salesmen: 1/3 of total pay Core managers 10%-15% Chinese managers: 1/3 of total pay Larger between sales people and the core managers	Salesmen: commission Key people: bonus Chinese managers: Taiwan's system Salesmen: 30%-50% of preset salary Key people: 10%-20% Chinese managers: 1/3 of total pay Larger between sales people

Obviously differences in contingent rewards existed between operations (Table 6.32), especially between the Taiwanese operation and the German and Dutch operations. The Taiwanese operation enjoyed a great contingent reward system. In

addition to monthly salary, all people enjoyed two months' promised bonus, performance bonus, and premium. Performance bonus was based on whether the company achieved its target, and premium was based on earning distribution after income tax. When the company's profit was good, its employees could even enjoy the performance bonus, on average more than 30% of pre-set pay. Its direct workers had a monthly production bonus, but indirect staff enjoyed more performance bonus and premium. Because senior managers had more responsibilities and no overtime premium, normally they could receive more performance bonus and premium. The incentives were directly related to company profit. "There is a close relationship between operating results and incentives."⁸² Actually when considering incentive, top management based rewards just on the actual profit to determine total performance bonus.⁸³ Basically, they evaluated the employees' performance level by level, and the performance would reflect on the performance bonus and future salary. Except in the sales and marketing departments, there was no direct linkage between departmental budget performance and incentives. So the budget was only for summing up the units' targets, and it lacked departmental budget control.⁸⁴

In European operations, the compensation system emphasised pre-set salary, and was quite different from the Taiwanese system. Although they also evaluated each operation performance by budget objective and sometimes still had incentives, normally the incentive figures could not compare with those of the Taiwanese operation.

In Holland, except for senior managers and salesmen, employees had only 13 months' pre-set salary. Its president described its compensation structure:

"The people at senior management level (most of them are Chinese) are motivated by target, about 2/3 pre-set and 1/3 contingent; the salesmen are rewarded on individual sales; and other staff and employees have about 13 months' pre-set fixed salary and if there is bonus it is only very small and symbolic."

At high management level, bonus was given for individual managers' performance, but lower level managers and other employees had only a small bonus. "There is no formalised bonus system for employees, and the real bonus is only for general director level."⁸⁵ The departmental budget bore less relation to incentives, as its logistics director said: "Because of the problem of formality, we cannot link budget performance with incentive." Performance evaluation based on managers' judgement was somewhat subjective. Its personnel manager said: "Normally, the evaluation must

⁸² Quotation from the interview with the maintenance manager of Acer Global Inc.

⁸³ Quotation from the interview with the chief accountant of Acer Global Inc.

⁸⁴ From the interview with the chief accountant of Acer Global Inc.

⁸⁵ Quotation from the interview with the financial controller of Acer Computer B.V.

be down the line. The top manager evaluates departmental heads once a year....The performance difference only slightly affects their salary."

In the German operation, the situation was somewhat like the Dutch operation, but most of people's salary was pre-set and only special people including departmental heads could get a bonus. Talking of the compensation structure, its managing director described the conditions:

"You can say all salesmen have a 2/3 fixed salary and 1/3 is based on the revenue, department base, and gross margin. You can also say 99% of salaries are fixed at the beginning of the year with the way we account it. The bonus system for some departmental heads is also more or less fixed, but only at the end of the year will we know the net bottom and everybody will know how much bonus he will get."

The managing director regarded the departmental head as a "team leader", "guiding people towards net bottom line for their responsibilities", and he believed "the identification with company comes from a few higher levels." As to workers, he said: "People are here to earn money", and if they did their work well they would probably get a higher salary.

Another managing director said: "There is a close relationship between the incentive and whole company target", but owing to the lack of departmental budgets and targets, there was no relationship between departmental budget performance and incentive. As to performance evaluation, he said: "The main approach was to compare this year's with last year's figures." Performance mainly affected people's future salary.

In the British operation, originally the company compensation structure was quite simple. Except for salesmen having contingent commission, other people just had a monthly pre-set salary. From 1994, the new managing director, coming from Dutch headquarters, set broad incentives including sales-oriented and profit-oriented incentives for sales personnel, objective-oriented for supporting units, and a quarterly objective review for fixed salary employees. At present the bonus occupies about 30%-50% of pre-set salary for salesmen and about 10%-20% for other people.⁸⁶

The incentive system is quite broad, as its controller said: "We share the incentive with most people. So far only a few people have not been given the incentive. Basically, senior managers get more bonuses." If there is a special bonus for achieving the objective at the year end, it is only for directors and senior management level.⁸⁷

For linking incentives and performance, as the controller and the director of logistics said, they needed to set different indicators including non-financial indexes

⁸⁶ From the interview with the managing director of Acer U.K. Limited.

⁸⁷ From the interview with the marketing director of Acer U.K. Limited.

for each department and key personnel, but owing to lacking departmental budget, the incentive was still less linked to departmental budget performance.

6.9.5 Conclusion and Discussion

The proposition was verified by the research. Taiwanese operations significantly granted more contingent rewards than their European counterparts. Compared with Taiwan, Europe obviously had a different compensation system. Further checking of individual European operations showed all operations had strong differences. In interviews, the philosophy of the head of operations of Acer and Mitac in Europe was found to have a relatively important influence on contingent rewards.

Previous cross-cultural inter-firm research (Chow et al., 1991; Merchant et al., 1995) could not find support based on Hofstede's cultural dimensions. The component of contingent rewards seems unpredictable by reference to Hofstede's cultural dimensions only. It appears social and political factors are considered first rather than the use of Hofstede's cultural dimensions to predict a direction. With the Chinese philosophy of "when in Rome do as the Romans do", Taiwanese firms respect the compensation structures and styles of European operations. The result reasonably reflects the real situation. In addition, because Acer and Mitac focused on the market more in their European operations than other cases, naturally, they used more contingent rewards than Tatung's and Lite-On's European operations.

6.10 Group Rewards

Proposition 1-9: Taiwanese operations will be more group reward oriented than their European counterparts.

The purpose of this proposition is to compare the component of group rewards between the Taiwanese and European operations within each case firm. Three themes, including incentive base, participants, and main factors of consideration, from the main interview questions on group rewards will be observed for comparison.

6.10.1 Tatung

Strong differences on group rewards existed between the Taiwanese and British operations (Table 6.33). In Taiwan, Tatung corporation had more than ten plants and each plant was designed as an autonomous profit centre. Independent accounting was used for each centre to reflect its performance, so it was possible to give different incentives to different centres which had different performances. The bonus was designed to be issued by plant, but because those plants still belonged to the same

corporation and the corporate organisation was clearly not split fairly for each autonomy, the independent accounting actually did not relate well to the incentive system. In addition, the quarterly evaluation and salary adjustment were still considered by the whole corporation. Top management always considered the balance between different centres and the harmony of the whole corporation. As the director of the electronics plant said:

"We emphasise team work, although originally we still emphasised the individual centre, but there were some difficulties on integrated operation....There is a small difference within the whole corporation and that is always a special characteristic in Tatung."

Table 6.33 A Comparison of the Group Rewards between the Taiwanese and British Operations within Tatung

Items	Taiwanese operation	British operation
Incentive base •Base •Emphasis	Whole company and operation Team work	Marketing unit and senior managers Individual performance
Participants •People •Difference	Whole managers and employees Small	Senior managers and sales people Significant between sales people
Main factors of consideration	Balancing harmony and profit target	Management team, British culture, and profit target.

"That profitable units should cover the loss units is a part of Tatung culture."⁸⁸ Tatung top management always took care of both the profitable units and the loss units. The gap of individual incentive was controlled within a relatively narrow range. As to employees within the same plant or profit centre, their performance only slightly affected their rewards, as its technical manager described: "The performance does not significantly affect the bonus, and it seems the same for everybody.... Relative differences among plants existed due to using the centre profit, but there is only a little difference within a plant."

In the British operation, apart from to the sales and marketing departments having a commission system, no formal incentive system was found, but even in the sales and marketing department, the incentive base still strongly differed from the Taiwanese operation. One of the auditing committee at headquarters described the difference:

"Our bonus is designed by group. Even with the sales and marketing department, we still give different targets to different groups. Each time they go out as two or three people for integrated battle, not as individuals. but in the UK, we give different individual targets for the sales and marketing departments. In Taiwan Tatung corporation it is impossible to have a super salesman as in western countries."

⁸⁸ Quotation from the interview with the general plant manager of Tatung electronic plant.

The financial controller of the British operation also said: "The rewards are on an individual base: only the managers take care about the team performance." "English people are more individual so the group bonus is not suitable for them."⁸⁹

There were two special conditions concerning the group rewards in the British operation. First, Taiwanese managers still selected Taiwanese compensation and bonus systems. Secondly, there were team bonuses for special missions for product designs and special projects, such as special urgent orders.⁹⁰

6.10.2 Lite-On

Table 6.34 A Comparison of the Group Rewards between the Taiwanese and British Operations within Lite-On

Items	Taiwanese operation	British operation
Incentive base •Base •Emphasis	Whole company whole company's group	Lacking an incentive system Preferring team or department base (in the future)
Participants •People •Difference	Whole managers and employees Small	N/A* N/A
Main factors of consideration	Emphasis on co-operation and harmony within the corporation	Profit target and harmony within a team or department (in the future)

* N/A: not adaptive

Because of the different compensation structures, there were strongly different reward bases between the Taiwanese and British operations (Table 6.34). In the Taiwanese operation, because its top management strongly emphasised co-operation and harmony, the incentive base was the whole corporation, not the SBU. Its Vice president explained the reasons:

"Our incentive base is the whole corporation as a team. Because each SBU has different products, history, scale, and investment, it is very difficult to set a reasonable appraisal indicator for each SBU⁹¹. In addition, if we divide into different groups it is not good for harmony, for personnel rotation, and it is not fair."

Although the British operation still had no incentive, it is planning a small scheme from 1997 and its top managers prefer the group to the individual. Its managing director described his philosophy as follows:

⁸⁹ Quotation from the interview with the executive director of Tatung (UK) Limited.

⁹⁰ From interviews with the managing director and the chief accountant of Tatung (UK) Limited.

⁹¹ Also in the interviews with the associated vice-president and the planning director of the Power Conversion of Taiwan Liton.

"If you reward individuals, you run the risk of good ideas and good practices being cut away. The people who do them won't ask other people to do them. On the other hand, if you reward the group of people performing the task, then they do well. It will be interesting to share the information of the group and perform even better....I don't believe individual incentive works, and I believe in the group task."

As to the incentive base, they prefer the team or department rather than the whole company. Its production manager said: "If we set incentive systems, I prefer team incentive in my department. We have six teams now." The executive director said: "I would prefer an incentive to the group, and in that the department would be considered. So every department can see its contribution to the total performance." Its controller agreed that it is easier to set a group incentive scheme.

The Taiwanese operation has used the whole company as a group reward base for a long time and its employees enjoyed abundant group rewards. Conversely, in the British operation although its managers preferred team base or department base as their group reward in the future, its employees got nothing over the past few years. Whether its incentive system can succeed in the future is still in doubt.

6.10.3 Mitac

Table 6.35 A Comparison of the Group Rewards between the Taiwanese and British Operations within Mitac

Items	Taiwanese operation	British operation
Incentive base •Base •Emphasis	Whole company whole company's group	Marketing unit and senior managers Individual performance, but sometime nominal bonuses were given, like the group bonus, to lower level people.
Participants •People •Difference	Whole managers and employees Small	Senior managers and sales people Significant between the sales people and between the senior managers
Main factors of consideration	Balancing profit target and harmony	Profit target and key management team

Strong differences on group rewards existed between the Taiwanese and British operations (Table 6.35). The Taiwanese operation used the group reward based on the whole corporation. Its controller explained the reasons:

"Although we already have a framework of profit centre, it is still difficult to split overhead. Each centre has a different background and we have some strategies to consider, so if we directly compare centres' profit it is unfair and will destroy team work spirit. At the moment we pool group rewards, but with the business developing we will consider using the target of each profit centre to appraise their performances."

As to the differences among individuals, basically there were only small differences in the team, depending how the supervisor made adjustment. Of course, if there were excellent teams the president would consider giving some special incentives.⁹²

Although at the moment the evaluating grades affect staff bonus little, those grades still significantly affect their future promotion and salaries. At present the contingent rewards for workers are even more different than for managerial staff. Of course it is not a permanent phenomenon.

In the British operation, as small amounts of money are given to lower level employees, it looked like group rewards, but to the higher level enjoying more bonuses it looked like an individual system. "The lower you are, the more it is like group reward, but the higher you are, the more individual the reward."⁹³ Even in the marketing department two different systems still exist, as its managing director said: "The foreign market section is a more individual system, but the domestic section is more geared to group incentive ... So we keep two systems." Overall the company used the more individual basis in its incentive system. He concluded: "Basically, we use individual rewards and few group rewards." Besides, senior Taiwanese managers still chose the Taiwanese compensation system so they enjoyed the same bonus as Taiwanese managers.

6.10.4 Acer

Strong differences on group rewards existed between the Taiwanese and European operations (Table 6.36). The Taiwanese operation put more emphasis on the group and regarded the whole company as a profit centre, as its logistics manager said: "We always emphasise the team. Because the industry changes so fast, we need to emphasise the team work spirit to face different changes." Its maintenance manager also said: "The company emphasises integration. Top management sometimes also considers incentive by departmental performance, but within the same department there is only a slight difference among the employees."

⁹² From the interview with the vice president of Hsin-Chu plant of Mitac International.

⁹³ Quotation from the interview with the logistics director of Mitac Europe Limited.

Table 6.36 A Comparison of the Group Rewards between the Taiwanese and European Operations within Acer

Items	Taiwanese operation	Dutch operation	German operation	British operation
Incentive base				
•Base	Whole company	Managers and sales unit, and then other units.	Key managers and marketing unit	Sales unit and then other units
•Emphasis	Team work	Individual and group performances	Individual performance	Individual performance
Participants				
•People	Whole managers and employees	All managers and sales people, and then other people.	Key managers and sales people	Managers and most of employees
•Difference	Small between employees, but larger between managers.	Significant between sales people and between managers	Significant between individuals	Significant between individuals, especially for sales people.
Main factors of consideration	Profit target and team work	Profit orientation and management team	Management team and sales growth	Profit target and team work

European operations gave less incentive and placed less emphasis on group reward than did the Taiwanese operation. The president of the European headquarters described the situation as follows:

"It may be suitable to use the group concept in Europe, but because of different conditions in different countries, we just give a lump-sum of incentive money to the head of each operation based on operations' target performance. As to how to proceed with incentive, it will depend on the philosophy of the operation's head."

The general controller of Europe also said: "There is no regional policy to regulate incentives... The head of country operation can give incentives by purpose or for special tasks and he can also use individual or group incentives."

In the Dutch operation although bonuses were mainly for senior managers, other staff could still get a small bonus according to different performance grades. The bonus base was quite broad and the higher the management level the more individual the bonus. Basically, except that its salesmen were on an individual basis, its bonus base was more on a group basis, as its personnel manager said: "It is more group style."

In the German operation, top management emphasised team work. The managing director said: "I like to have the consent of the whole team on the driving force." In his opinion, however, having a management team of department heads was of first importance, so the reward base was narrower than in other operations. Another managing described the idea more as follows:

"If we have incentive we focus on the individual. If we achieve the target we allocate the bonus to those main managers. We look to reward the individual and there is no plan to give to everybody. We recognise the main contribution towards achieving an objective comes from the managers."

Its personnel officer said: "In giving a bonus, the emphasis is on the individual." Individual performance closely relates to managers' incentive.

Objectively, the incentive system in the German operation was on a narrower and more individual basis.

In the British operation, they used a hybrid base containing both group and individual rewards. Its controller said: "Our bonus is designed for the individual department, but within that department there is still group incentive." Even in the marketing department the incentive system was designed for both individual and group base, as its marketing director described:

"We give a bonus by both group base and individual base and it depends on management level. Under middle management level bonuses are based on the individual, but bonuses for senior managers are based on company objective and individual objective."

Compared to two other European operations, the incentive system in the British operation was more varied and the rewards were more hybrid.

6.10.5 Conclusion and Discussion

This proposition was supported by the research. Taiwanese operations differed from their European counterparts. A strong difference between Taiwanese and European operations was found in each case firm. Taiwanese firms respect the compensation structures and styles of European operations. The result showed that national culture is a major, though not sole, determinant on the component. Leadership factors and the philosophy of the head of operations still significantly affected the relative extents of the results.

Previous cross-cultural inter-firm studies (such as Van et al., 1992; Chow et al., 1994; Merchant et al., 1995) could find little support for their hypotheses or propositions on this component. Some studies used simple questionnaires as a survey instrument. However, managers' personal tastes and circumstances (Emmanuel, 1990) might affect reward forms. Sometimes a questionnaire survey could not reflect a complicated circumstance. Merchant et al. (1995) used an open-ended interview process to compare the Taiwanese and American firms, but he still failed to support his proposition on the component. The countries chosen for comparison might affect the result. This research compared the Taiwanese and the European operations within each

firm. There are two reasons to confirm the result. First, two areas belong to strongly different social styles. One is a capitalist society, and the other is a socialist society. Secondly, Taiwanese firms respect the original compensation structures and styles of foreign operations. As a result, the finding in the proposition seems relatively reasonable.

6.11 Long-term Rewards

Proposition 1-10: Taiwanese operations will place more emphasis on long-term rewards than their European counterparts.

The purpose of this proposition is to compare the component of long-term rewards between the Taiwanese and European operations within each case firm. Two themes, including types of long-term financial rewards and linkages between performance and long-term rewards, will be observed for comparison from the main interview questions on long-term rewards.

6.11.1 Tatung

Table 6.37 A Comparison of the Long-term Rewards between the Taiwanese and British Operations within Tatung

Items	Taiwanese operation	British operation
Types of Long-term financial rewards <ul style="list-style-type: none"> • Long-term incentive plan • Stock purchase plan • Housing loan • Benefits 	Informal plan, special long-term bonus for R&D talents. Employees had a right to buy. Selecting from applicants Abundant employees' benefits	Lacking a formal plan Taiwanese managers enjoyed stock purchase plan. No housing loan Many employees' and managers' benefit
Linkage between performance and long-term rewards	Some, but relevant to tenure and position	Little linkage, more relevant to position.

There were some differences on long-term rewards between the Taiwanese and British operations (Table 6.37). In the Taiwanese operation, all employees could take part in the stock purchase plan which could be paid in installments from the monthly salary. The corporation keeps their stock until they retire or leave the company. Because of stock-market price mark-up, most employees will gain great wealth. Another special long-term reward is the housing loan. With the chairman's ideal of "all workers having their own houses", the corporation offers its employees ten to fifteen years house loan and only charges very low interest (even no interest in the past). Strictly speaking these benefits lack relevant relation to direct performance. Every

employee has the right to purchase stock under the stock purchasing plan. "A senior employee owns equivalent stocks to a senior manager."⁹⁴ As to the housing loan, although nearly 1,800 people have got the benefit, it still occupies only a small percentage of total employees. In addition, the corporation gave a few senior R&D professional talents a special monthly long-term bonus as super stars.

In the British operation only some Taiwanese managers could enjoy the same benefit as in Taiwan, but British people enjoyed more holidays. In addition, the company offered cars or traffic subsidy money to senior managers.

There were similarities in employees' benefit between the two operations. They all had pension schemes, cheaper meals, health insurance, and other employees' benefits.

Overall, both operations lacked a formal long-term incentive plan, but the Taiwanese operation's people still obviously enjoyed more long-term rewards than did the British.

6.11.2 Lite-On

Table 6.38 A Comparison of the Long-term Rewards between the Taiwanese and British Operations within Lite-On

Items	Taiwanese operation	British operation
Types of Long-term financial rewards <ul style="list-style-type: none"> • Long-term incentive plan • Stock purchase plan • Benefits 	Lacking a formal plan Employees had a right to buy Emphasising employees' benefit.	No any plan No purchase plan Some employees' and managers' benefits
Linkage between performance and long-term rewards	Some, but more relevant to position	Lacking relation to performance

There were strong differences on long-term rewards between the Taiwanese and British operations (Table 6.38). The Taiwanese operation's employees enjoyed more long-term rewards than its counterpart.

In the Taiwanese operation, its employees could participate in the stock purchase plan. The higher the position of the managers, the more stock they could purchase. They also had a pension scheme, insurance scheme, and other benefits. In addition, senior managers had a special health insurance scheme. Some of its senior managers felt that the intangible long-term rewards were still very important. "The

⁹⁴ Quotation from the interview with the deputy chairman of auditing committee of Tatung Company.

corporation offers lots of opportunities to motivate managers to achieve something quite important.⁹⁵ The president of Taiwan Liton also described its rewards:

"Basically, I think there are lots of approaches in rewards. It may be cash compensation, stock, position, or responsibility. We use them according to different situations and some of them are long-term rewards."

Compared to the Taiwanese operation, the British operation lacked tangible long-term rewards for its employees. Its employees had only some benefits such as a pension scheme and the senior managers enjoyed more, including motor vehicles, communication expenses, and family insurance. Its executive director was striving to set more training programmes for its managers and employees and that is a good vision for the company's development in the future.

6.11.3 Mitac

Table 6.39 A Comparison of the Long-term Rewards between the Taiwanese and British Operations within Mitac

Items	Taiwanese operation	British operation
Types of Long-term financial rewards <ul style="list-style-type: none"> • Long-term incentive plan • Stock purchase plan • Benefits 	Lacking a formal plan All employees had a right to buy Emphasising employees' benefits	Lacking a formal plan Taiwanese managers and a few senior European managers enjoyed stock purchase plan. Emphasising employees' and managers' benefits
Linkage between performance and long-term rewards	Some, but more relevant to position	Lacking relation to performance

Some differences on long-term rewards existed between the Taiwanese and British operations (Table 6.39). In Taiwan all employees enjoyed the stock purchase plan and good benefits including pension scheme, health insurance, and other benefits. Managers enjoyed more benefits including car purchase plan and life insurance plan. In addition, they had more opportunities for training, cultivating, promotion...etc.

In the British operation, in addition to Chinese managers being able to enjoy the stock purchase plan, other key local senior managers also owned Taiwan Mitac stock. There was a good benefit system for its employees including pension scheme, health insurance, holidays,...etc., and more benefits for managers, like a company car and family health insurance.

⁹⁵ Quotation from the interview with the planning director of the Power Conversion Division of Taiwan Liton.

Overall, on the long-term rewards there were some differences between the two operations and the extent of differences was obviously less than in other cases.

6.11.4 Acer

Some differences in long-term rewards existed between the Taiwanese and European operations (Table 6.40). In the Taiwanese operation, employees enjoyed a stock purchase plan according to their position and tenure. In addition, the company offered some long-term benefits including a pension scheme, health insurance, and other benefits, but senior managers enjoyed more.

Table 6.40 A Comparison of the Long-term Rewards between the Taiwanese and European Operations within Acer

Items	Taiwanese operations	Dutch operation	German operation	British operation
Types of Long-term financial rewards				
• Long-term incentive plan	Lacking a formal plan	Lacking a plan	Lacking a plan	Lacking a plan
• Stock purchase plan	Employees participated in purchase plan.	Taiwanese managers participated in purchase plan.	Taiwanese managers participated in purchase plan.	Taiwanese managers participated in purchase plan.
• Benefits	Senior managers had more benefits.	Senior managers had more benefits.	Senior managers had more benefits.	Senior managers enjoyed more.
Linkage between performance and long-term rewards	Some, but more relevant to position.	Lacking relation to performance	Lacking relation to performance	Lacking relation to performance

In the European operations, until now some long-term rewards were lacking, such as pension scheme, health care, and other benefits. Senior managers enjoyed more benefits including family health care and cars. Almost all Taiwanese managers chose the Taiwanese compensation system and they all enjoyed the stock purchase plan as Taiwan's employees. European operations follow headquarters' long-term vision in which they would all become publicly listed companies before the 21st century. It is expected that they would become the main stockholders in future public companies. At present, maybe the less tangible rewards are more obvious than financial rewards, such as "Another long-term reward is to have more increasing learning every day, increasing my value every day."⁹⁶, "You feel a stable future in the company and that is my best long-term reward"⁹⁷, and "If you can survive in Acer you can go everywhere."⁹⁸

⁹⁶ Quotation from the interview with the financial controller of Acer Computer B.V.

⁹⁷ Quotation from the interview with the marketing director of Acer U.K. Limited.

⁹⁸ Quotation from the interview with the financial controller of Acer Computer B.V.

All of the interviewees in the Taiwanese operation were more satisfied with the long-term rewards than those managers of European operations.

6.11.5 Conclusion and Discussion

This proposition was broadly supported by the research. In-depth interviews showed each case firm had better long-term rewards in the Taiwanese operation than in the European operation. Different case firms had different extents of variances. Among them, Lite-On showed strong differences, then Tatung and Acer, and then Mitac. However, Taiwanese managers in European operations can still enjoy the same long-term rewards as those in Taiwanese operations, or even better.

Chow et al. (1995) used a reverse direction to compare Taiwanese and American firms, and the proposition on this component was supported by their findings. American firms used more long-term incentives. Compared with this research, it seems a perplexing result. Three possible reasons may explain the difference. First, the two studies focused on different content. Chow et al. (1995) focused on measuring periods over one year, but this research emphasised the types of long-term rewards and their relationship with performance. It is possible to get different results with different content. Secondly, this research with an intra-firm comparison differed from Chow's research with an inter-firm comparison. Long-term rewards in a multinational firm normally will start from the domestic operations. This research reasonably reflected this phenomenon. Thirdly, perhaps national culture could not be enough as a single criterion to judge the direction. The development and extent of capitalism in America, Taiwan, and Europe seems better able to explain the sequence.

6.12 Summary

Proposition 1 containing ten components of MCSs was examined as above. Five out of ten components, including objective setting, short-term and long-term planning, contingent rewards, group rewards, and long-term rewards, conformed with the cultural proposition. The results were analysed and discussed in each section above. The rewarding and planning processes, especially the rewarding process, had a close relationship with cultural factors, but sufficient evidence was lacking to show a close relationship between the organising and evaluating processes and cultural factors in the case firms. In addition to cultural factors, there are other important factors affecting a multinational firm's MCSs, especially in the organising and evaluating processes. A firm's control style and some contingencies significantly affected some

components of MCSs compared in proposition 1. As the research framework shows in section 2.7, financial control factors and other situational factors could influence MCS design in multinational firms. The results of the research seem to show a reasonable extent of consistency within this framework.

The research results show that clear differences in the rewarding process exist between Taiwanese and European operations within all the cases. Cultural factors still significantly affect the variables of contingent rewards, group rewards, and long-term rewards. Overall, except for the rewarding process, Tatung had strong similarities in MCSs between its Taiwanese and European operations, Lite-On and Acer had strong differences, and Mitac was somewhere around the middle. Assessing proposition 1 in the components of MCSs showed that only some sub-propositions conformed with the influence of cultural factors. Cultural factors do not seem to provide a sufficient explanation. Some financial control factors and situation factors could also be shown to have a strong relationship with the differences between Taiwanese and European operations within the case firms. In the next two chapters this research will explore how financial control factors affect the uniformity of MCSs. In addition, the relationship between situation factors and system transfer will be discussed in chapter 9.

7. Financial Control Factors and Managerial Values

- 7.1 Introduction
 - 7.2 Degree of Control
 - 7.3 Budget Emphasis
 - 7.4 Selection of Managers
 - 7.5 Results and Propositions
 - 7.6 Summary
-

The driving assumption behind process thinking is that social reality is not a steady state. It is a dynamic process. It occurs rather than merely exists. Human conduct is perpetually in a process of becoming.

(Pettigrew, 1997: 4)

7.1 Introduction

A comparison between Taiwanese and European operations within different firms has been presented in the last chapter. Except for the rewarding process, Tatung had strong similarities between its Taiwanese and British operations. Lite-On and Acer showed great differences between their Taiwanese and European operations. Mitac was in the middle.

For exploring the factors affecting transference of MCSs between Taiwanese and European operations, this study will probe the effect of financial control style from the position of the headquarters. Three financial control factors, including degree of control, budget emphasis, and the selection of managers, will be discussed respectively in the following sections. Through in-depth interviews at firms' headquarters and checking their operations, some significant leadership philosophies were found and all of them seem to have a strong relationship with financial control factors. In addition, the research discovered the different patterns of each financial control factor among the case firms.

Following the classification of the style of financial control, proposition 2 concerning the relationship between national culture and financial control factors was also examined. Overall, the relationship between national culture of headquarters and these three financial control factors was not strong in the research. Different financial control styles form different patterns in their MCSs. Clearly, the management control philosophy of top management at headquarters significantly affects those MCS patterns.

7.2 Degree of Control

Proposition 2-1: The leaders of Taiwanese headquarters affected by their cultures have high degrees of control in their corporations.

The main purpose of this section is to compare the factor of degree of control in the case firms. Four themes, including central leadership, control objectives, decentralised decision making system, and headquarters-subsidary relationship, will be probed. Different patterns in the case firms will be presented in each theme. As a result the patterns of the degree of control in the case firms will be assessed for examining proposition 2-1. Another purpose of this section is to contribute its result, with the other two factors, to evaluating the style of financial control. This topic will be discussed further in the next chapter.

Table 7.1 The Comparison of Main Items of Degree of Control among Case Firms

Main themes	Tatung	Lite-On	Mitac	Acer
Central leadership • Stacey (1990) • Dermer/Lucas (1986)	Powerful leadership • Monarchic • Unirational perspectives	Division autonomy • Pluralistic • Multirational perspectives	Business autonomy • Oligarchic • Near-unirational perspectives	Strong leadership • Pluralistic • Multirational Perspectives
Control objective • Planning influence • Control influence	Financial • Moderate • Tight financial control	Strategic and financial • Moderate • Tight strategic control	Financial • Low • Tight financial control	Strategic and financial • High • Flexible strategic control
Strategic management style (Goold/Campbell, 1987) [Emphasis of MCSs]	Financial programming [Planning and controlling functions]	Strategic control [Strategic plans and motivation]	Financial control [Information and financial goals]	Strategic planning [Objective setting and motivation]
Decentralised decision making system • Controls in firms	Integrately defining More action, result, and personnel controls	Individually defining More result and personnel controls	Defining in network organisation More result and action controls	Defining in client-server system More interactive and personnel controls
Headquarters-subsidary relationship: Strategic predisposition (Chakravarthy/Perlmutter, 1985) Strategy (Nohria/Ghoshal, 1994)	More centralised Ethnocentrism Low differentiated fit but high shared value	Decentralised National responsiveness High differentiated fit but low shared value	More centralised in financial decisions Geocentrism and ethnocentrism Intermediate differentiated fit and shared value	Separate management Geocentrism with Regiocentrism Intermediate-high differentiated fit and shared value

From the interviews conducted at cases' headquarters, some important management control philosophies and practices relating to the degree of control were

found (Table 7.1). Tatung owns an integrated and uniform MCS in its group, and its headquarters plays an important position in group management. Lite-On emphasises its strategic planning and uses decentralised systems under its professional management. Mitac puts more emphasis on systematic management through its network and management information system, but it still retains a central and conservative attitude in financial decisions. Acer employs a separate management philosophy and its managers easily make decisions independently under its client-server system. Integratedly speaking, the ranked sequence of degree of central control in the cases studied is Tatung, Mitac, Lite-On, and Acer. Each theme will be discussed as follows.

7.2.1 Central Leadership

Central leadership in a firm concerns a political system and leader's belief concerning organisational control. A categorisation of the political system by Stancey (1990) was used in the research. Political system represents how the organisation is controlled. Three types of political systems considered in the research are monarchic, oligarchic, and pluralistic systems. As to a leader's belief concerning organisational control, the category of Dermer and Lucas (1986) was used in the research. The terms "unirationality" and "multirationality" representing the conception of the role of power were used as the criteria of classification. From a unirational perspective an organisation is a coordinated network pursuing common objectives (Landau, 1969; see Dermer & Lucas, 1986). The organisation is assumed to be made up of individuals, operating departments, and staff groups which are relatively homogeneous with regard to the criteria they use to assess the achievement of their interests. The multirational conception is based on the premise that political relationships between interest groups within an organisation play a large part in determining its decision process and the outcomes of that process (Dermer & Lucas, 1986: 473). Based on these two categories, different patterns of central leadership in the case firms are discussed as follows.

7.2.1.1 Tatung

Tatung corporation has a powerful headquarters which controls major operations' functions including finance, personnel, purchasing, automation, and some sales and marketing activities¹. Its chairman plays a very powerful role in its group leadership. He disseminates his philosophy of "operating management" to all managers on a weekly training course. He sets strategies and targets for the firm and asks his subordinates to implement them. He uses weekly and monthly operating meetings as a

¹From Tatung's organisational structure.

means of team-work decisions and short-term feedback frequency to determine significant decisions and follow up performances. Each manager and controller of each branch or operation needs periodically to come back to attend an operating meeting. He also uses the opportunities of operating meetings to cultivate corporate culture and give instruction in significant matters. "The whole company's operating policy is handled by the chairman and significant decisions still need to be given by the chairman."² All important matters need to be approved by headquarters and its operations' managers lack the power to develop or form an important strategy. He has kept the position of chairman for almost fifty years and his five sons and loyal subordinates are arranged in key positions in the firm. Naturally he has become a patriarchal and paternal leader. Its political system is monarchic (Stacey, 1990) and its control is based on unirrational perspectives (Dermer and Lugas, 1986).

7.2.1.2 Lite-On

With the diversified product strategy and professional management, there is not too much control of the group by headquarters. Each member company enjoys relatively high decentralisation in decision making. They are independent in operating but share common resources like Lite-On brand, market channels, and overseas points. Lite-On emphasises localisation, so its operations' managers retain relative power to make strategies and decisions. Its operations' managers participate in the strategic planning and budgeting. Although its leader also gives some instructions sometimes, headquarters plays a reviewing and monitoring role through its reporting systems. Its control is based on multirrational perspectives (Dermer and Lugas, 1986), and the pluralistic political system (Stacey, 1990) allows each division to have relative autonomy.

7.2.1.3 Mitac

Mitac's core management includes its chairman, vice-chairman (original founder), and three sub-group's presidents who handle different business lines respectively. The group is changing its system from centralisation to decentralisation step by step. At present they have set up three sub-headquarters including Mitac International, Synnex Technology International, and Mitac Inc. to handle different sub-groups. The president of Mitac Inc. said: "Now we have lots of companies, so it is impossible to keep centralisation." Under the framework, each sub-group has its business focus and area. For example Mitac International focuses on PCs in America and Europe, Mitac Inc. focuses on system integration and special computers in Asia, and Synnex Technology international as a trading company focuses on speed flow of

²From the interview with one of Tatung's financial managers.

computer products around the world. The chairman and vice chairman still handle operating philosophy, policy, and developing direction, but under the sub-headquarters the professional managers start to develop their potential under a clear decentralisation. Although its chairman is still powerful, basically under the oligarchic political system (Stacey, 1990) other core managers' opinions are relatively respected. Each business line keeps an independent autonomy. Its core managers emphasise information openness and network management system. However, its chairman's philosophy still significantly affects the core management, and its control is still based on near-unirational perspectives (Dermer and Lugas, 1986).

7.2.1.4 Acer

Acer's headquarters plays a role of strong leadership. Many long-term visions, missions, and strategies, most of which are generated by consensus in its so-called "summit conferences"³, are set from headquarters. Its chairman uses a persuasive and encouraging approach to its managers instead of giving them orders. Different businesses and divisions are highly autonomous and all have their clear missions or objectives. Compared to the other three groups, Acer has a stronger authorisation. Its chairman said: "What is our basic element of success? It is separated management and authorisation." He used the "dis-integrated" business model as a client-server system splitting the business into several BUs. The chairman said: "Dis-integration means there will be room for more players to join and succeed, and with more players in more segments along the value chain, there will be greater sharing of risk."⁴ The advantages of the structure are that each business unit can make its own fast decisions in response to changing industry conditions, and the fact that the business is self-owned and self-run greatly enhances motivation. Obviously, its control is based on multirational perspectives (Dermer and Lugas, 1986) and the politic system is pluralistic (Stacey, 1990).

7.2.2 Control Objective

The control objective represents the managerial focus for control. This research used Goold and Campbell's typology to show different patterns of the control objective in the case firms. Goold and Campbell (1987: 36-44) used planning influence and control influence as two dimensions of the centre's influence process to classify eight different management approaches (or strategic management styles). Among them, three styles, including strategic planning, strategic control, and financial control, have

³ Acer holds a summit conference twice a year, and all its senior managers around the world have to attend. They discuss the goals, missions, strategies, and other important matters in the conference.

⁴ Quotation from a collection of Stan Shih's speeches.

often been used in prior research (such as Stacey, 1990; Coates et al., 1992). These three styles, and the style of financial programming, were used in this research. The style of strategic planning represents how the centre works with business unit managers to develop strategy. It may have a corporate strategy or mission guiding and coordinating developments across the business units. In the style of strategic control, the centre prefers to leave the initiative in the development of plans to business unit managers. The control process is an important influential mechanism for the centre. Targets are set for strategic objectives as well as financial performance. Strategic control firms combine moderate planning influence with tight strategic controls. In financial control firms, the centre's influence is exercised mainly through the budget process. Its firms combine a low level of planning influence with tight financial controls. As to the style of financial programming, it is a variant of financial control. It has more planning influence from the centre than those firms using financial control. Based on Goold and Campbell's framework, different patterns of the control objective in each case firm will be discussed as follows.

7.2.2.1 Tatung

Concerning the use of MCSs, Tatung emphasises the controlling function more than the planning function. Tatung's control focuses on financial objectives. With the design of profit centre organisation, Tatung's managers strictly control their own management through the budget process, setting budget targets, strictly monitoring implementation, evaluating short-period performance, and sanctioning budgets and capital expenditures. Although the chairman always keeps his long-term vision, its long-term strategies do not involve formal discussion by managers. Corporate management's role in developing strategies is limited, and operations' long-term plans are not reviewed by headquarters. Many strategic directions of business units are suggested or even dictated by the chairman. In other words, Tatung is a typical financial programming firm, which combines a moderate level of planning influence with tight financial controls (Goold and Campbell, 1987: 43).

7.2.2.2 Lite-On

Lite-On's control covers both strategic and financial objectives, but the strategic objectives are considered first. The centre leaves the initiative for the development of strategic plans to business unit managers. Then the centre reviews and criticises the plans to check on the quality of thinking of business unit managers. A three-year strategic planning will be developed first, then annual budgeting will be established. Targets are set for strategic objectives (such as growth rate, product or quality position, and market share) as well as financial objectives. The strategic

planning will be reviewed per half year and annual budget just as a means to achieve strategic targets. Lite-On can be classified as a strategic control firm combining moderate planning influence with tight strategic controls (Goold and Campbell, 1987: 43).

7.2.2.3 Mitac

Mitac focuses the MCSs on opening up information for its managers. With their protocol communication language through MIS and mail system, they are gradually developing a tier network organisation. Owing to the impact from a conservative philosophy, its financial objectives are controlled under a series of strict processes, including target setting, implementation monitoring, and result evaluating. Each operation is a separate profit centre with independent responsibilities. The budget is its main means of planning and profit is a very important performance indicator of its operations' managers. As to the strategic planning and long-term budgeting, its operations' managers seem not to care about this too much. Mitac can be classified as a typical financial control firm combining low planning influence with tight financial controls (Goold and Campbell, 1987: 43).

7.2.2.4 Acer

Acer's managers regard the MCSs as a means of achieving greatness in their careers. They form ambitious targets as their dreams in their summit conference. Top management focuses on objective-setting and encourages Acer's managers to keep an entrepreneurial spirit to build their careers. Acer's control covers both strategic and financial objectives. However, tight controls are seldom seen in the firm. They prefer flexible to tight controls. Many clear, long-term visions of the whole group were established instead of individual strategic plans. Short-term targets may have to be compromised in order to stay on track to build a business, but Acer's leader encourages a more tenacious pursuit of long-term goals. The flexible control system in Acer is more tolerant of innovative strategies that carry with them the risk of failure. Its strategies evolve continuously to meet the needs of rapidly changing markets. Sometimes when its managers failed to achieve a strategy or mission, the top management regarded it as the price to pay for the lesson. To its managers, the MCSs are really like learning processes. Headquarters plays a strong role in setting long-term visions and strategies, but its top management does not keep tight control in strategic and financial objectives. According to the above descriptions, Acer can be classified as a type of strategic planning with high planning influence and flexible strategic control (Goold and Campbell, 1987: 43).

7.2.3 Decentralised Decision Making System

The decision making system reflects the extent of decentralisation in a firm. Multiple aspects (Table 7.2) were observed and compared. The item "control in firm" is used from Merchant's (1985b) typology. Results control involves rewarding individuals for accomplishing particular results or achieving a particular outcome. Action control involves taking steps to make certain individuals act in the organisation's best interest. Personnel control involves using individual self-control and social control to push individuals to do the best for the organisation. As table 7.2 shows, different patterns of decision making systems exist among the case firms. Tatung is more centralised, Lite-On and Acer are more decentralised, and Mitac stays midway. Each case will be discussed briefly as follows.

Table 7.2 The Comparison of Decentralised Decision Making Systems among Case Firms

Main Items	Tatung	Lite-On	Mitac	Acer
Formality in documents	Formal	Moderate	Moderate	Informal
Routine decisions (Operating management)	Very clear and full delegation to centres	Full delegation to divisions	Clear delegation in its network system	Full delegation to members of client-server system
Non-routine decisions	Low delegation	High delegation	Conservative in financial decisions	High delegation
Interference from headquarters	Often	Seldom	Often	Seldom
Assigning operations' senior managers	Controlled by headquarters	Controlled by subsidiaries	Controlled by headquarters	Controlled by regional headquarters and subsidiaries
Controls in firm:				
• Results controls	Regularly reporting	Regularly reporting	Regularly reporting Uniform "BEPaid" diagnostic system	Regularly reporting but more tolerating unfavourable results
• Action controls	Procedure controls and instructions	Procedure controls	Procedure controls and instructions	Flexible management
• Personnel controls (Merchant, 1985b)	HRM and cultural controls	Managers' selection and social controls	Managers' selection	Social and cultural controls

7.2.3.1 Tatung

With the company's slogan "transferring big to small, full delegation", they designed a profit centre system for each operation and set clear decentralisation for different operation levels, but as one of its auditing committees said: "We have clear decentralisation in decision making for different operation levels, but significant decisions, especially concerning policy change, need to be approved in advance." All senior managers in the group are handled by the headquarters. Its plant director also said: "All of our investment has to be sent to headquarters for approval." He continued:

"If you cannot attain the mission then headquarters will interfere with your management. At that time your independent autonomy will be limited, but if you can run the unit successfully, then you can develop with great flexibility." The chairman (as a spiritual role in the group) takes care of all employees and step by step realises his ideal world, but essentially he still handles great power to control most significant decisions.

As to the controls, Tatung focus on them very much. It strictly monitors its operating result through its periodic reporting system. Under its standard costing, variances are analysed in detail for purposes of control. As to non-routine decisions, the decentralisation in Tatung is limited, and action controls, such as are approved by top management case by case, and instruction given by its leader in its operating meetings, are used very often. In addition, personnel controls are used popularly in the firm. Tatung always emphasises human resource management (HRM) including staff selection, periodic education and training, evaluation and promotion. Its chairman encourages self-control by developing a corporate culture built on Tatung's shared traditions, beliefs, and values.

7.2.3.2 Lite-On

Lite-On keeps a clearly decentralised decision making system in the firm. Its operations, especially foreign subsidiaries, could make important decisions themselves. The philosophy of localisation is an invisible hand to conduct the decentralised system. Although Lite-On emphasises "the system is the long-term stable foundation stone", owing to the limitation of scale of each SBU at the moment it still has difficulty in using a flat organisation⁵. Each manager of SBUs or operations in the domestic field has clear power and responsibility and he can significantly influence personnel and financial affairs⁶, but he still needs to communicate with relevant units. In other words, the decentralised decision making system is initially well established in the firm, but the independence of each SBU is still not enough at the current stage. With the philosophy of harmony, most system design still emphasises whole company involvement, not just the SBU⁷.

Lite-On relies on results controls in the firm to a great extent. It manages the subsidiaries through its reporting systems. Strategic and financial objectives are monitored in its reports. Action controls like procedure controls are also used in the firm, but compared to Tatung and Mitac, action controls are not too popular. In addition, personnel controls are emphasised. Team work and harmony are the two important social forces. The selection of professional managers is also a critical factor

⁵Quotation from the interview with the president of Taiwan Liton Electronic co.

⁶Quotation from the interview with director of corporate planning department.

⁷Quotation from the interview with the controller of Taiwan Liton Co.

in its personnel controls.

7.2.3.3 Mitac

Mitac keeps a clear decentralised decision making system in its routine operating management. For ensuring some uniformity in decentralisation, top management has built-in some rules in the network system, as the chairman said: "We decentralised in decision making but we have certain rules to be followed." He asks his managers to maintain discipline and openness in the decentralised system. Its vice president said; "We are more decentralised in marketing decisions but more conservative in financial decisions." Some important decisions of operations are still controlled by headquarters, as the managing director of the British operation said: "The personnel, payroll of senior managers, receivable allowance for accounts, investment, and other significant decisions belong to headquarters. We have to report to them."

Mitac relies heavily on results controls. In addition to traditional financial reports, Mitac designed a "BEPaid" report system for overseas operations as a self diagnostic reporting system to check their health at any time. Its chairman said: "It is not enough to look through only the traditional financial statements to see whether the business is good. The business needs to start to develop its own management reporting system.⁸" Mitac use a "BEPaid" report as a simple focus and means to manage the global corporation. If any operation does not do well on the items in the "BEPaid" report, all relevant units' supervisors will take action on them at once by mail system or phone call⁹. Mitac also emphasises action controls. Many procedure controls are set to ensure transactions are suitably followed. Its chairman also sometimes give instructions. As to the personnel controls, in addition obviously to professional managers being gradually established at senior level, Mitac could not be compared with the other case firms.

7.2.3.4 Acer

The director of management analysis said: "Headquarters handles only some key decisions such as important investment and finance, and other detailed matters are controlled by each operation." Factors that contribute to the success of Acer's client-server organisation structure are group-wide use of the Acer global brand, reliable access to state-of-the-art technologies, a shared common interest in the success of all member entities, and firm representation on the board of directors.¹⁰

Under the model, there is a clear value chain in the group and less room for excuse among BUs. The chairman said; "We exclude too many excuses and

⁸Quotation from "Contingent Empire" by S. S. Chen, p217.

⁹From the interview with the chairman of Mitac group.

¹⁰From a collection of Stan Shih's speeches.

headquarters overheads." He continued: "Our simple rule is no value added, no support in between." Under the client-server system, each unit has enough space for surviving, as its chairman said: " We provide the atomic energy to each unit. Each BU has the right to consider whether to accept the internal transfer price or purchase from outsiders, develop a product by its own brand, and pave its own marketing channels." BUs are managed not from headquarters but often from their board of directors, as one of its VPs said: "The decisions are made at local level. We discuss with local directors and their senior managers, not with headquarters... Normally, each board of directors gives the president great powers of decision." Its senior VP also said:

"We do not really manage them through headquarters, but work as an investor under the management of a board of directors....Each company's managers have to respond to their board of directors, not to headquarters. The term 'headquarters' is not even recognised by them... This framework focuses on controlling policies and operating directions, not on managing their systems."

The chairman said: "I communicate my operating strategies to the operations with high level emphasis, that means more framework, logic, and concept." He went on to describe the benefit of the system: "My role in the integrated system is that of a coach and I seldom directly interfere in their management. The advantage of this style is that companies will grow quickly without confusion. All managers can learn by themselves in the organisation and everyone feels that we are quite different from other companies." Under the group headquarters they set regional headquarters to manage different areas, as its auditing director said: "Headquarters need to give more authority to operations in different countries. After all, the most important thing is to achieve the whole objective. At the moment we have regional headquarters in different areas, such as America, Europe, and other areas. They all have a general controller to review their financial matters." "I would rather lose control to make money, than be in control and lose money."¹¹ The result is just as one of its VPs said: "The chairman always enjoys delegating his great power and not being leader in a crowd of dragons. That means he uses a dis-integrated business model which is a decentralised system." Another VP also said: " In the past the chairman bore too much of a burden and worked very hard, but now he validly delegates power to each BU's head and lets them take on almost everything except some strategic problems."

Acer takes a very flexible attitude to control its results and actions. The top management encourage subordinates to achieve their targets as ably as they can, but they are permitted to operate very flexibly. In addition, its top management encourages Acer's managers to challenge their missions with entrepreneurial spirit and has extreme tolerance of their failures. Essentially, Acer really uses those controls as a

¹¹ Quotation from the interview with the chairman of Acer group.

means of organisation learning. "We just want everyone to learn something from past experiences. The more tuition one gets, the smarter one becomes."¹² Interactive management controls¹³ were used in Acer very successfully. Compared to other case firms, programmed controls are more informal. However, Acer heavily emphasises personnel controls, including cultural and social controls. As described in chapter 5, through personnel controls Acer's managers really share many beliefs and controls.

7.2.4 Headquarters-subsidary Relationships

Most leaders of multinational corporations face a dilemma of how to keep the balance between differentiated fit and shared value (Nohria and Ghoshal, 1994) on headquarters-subsidary relationship. The management control system is a function of national culture and financial control factors. If the national culture is a major determinant of effectiveness of the MCS, the use of components of MCSs does differ between different countries; otherwise, if the financial control factors are major determinants of effectiveness of MCS, MNEs will find it easy to set uniform systems for cross-boarder operations and the feasibility of transferring MCSs between countries becomes possible. As described in chapter 2, strategy significantly affects a MNE's control systems. Strategic predisposition (Chakravarthy and Perlmutter, 1985; Perlmutter, 1984; Heenan and Perlmutter, 1979) or behavioural orientation (Schollhammer, 1969) undoubtedly impacts on the MCS design in a MNE. Different firms have different strategies to adapt to their special situations. According to Heenan and Perlmutter's (1979) typology, there are four distinct strategic predispositions: ethnocentrism, polycentrism, regiocentrism, and geocentrism. Each predisposition represents a type of headquarters-subsidary relationship. Ethnocentrism is a predisposition where all strategic decisions are guided by the values and interests of the parent. Polycentrism is a predisposition where strategic decisions are tailored to suit the cultures of the various countries in which the MNE competes. Regiocentrism is a predisposition that tries to blend the interests of the parent with that of the subsidiaries at least on a limited regional basis. Finally, geocentrism is a predisposition that seeks to integrate diverse subsidiaries through a global systems approach to decision making (Heenan & Perlmutter, 1979; Chakravarthy & Perlmutter, 1985). Chakravarthy and Perlmutter (1985) used the dimensions of "locus of relative power" and "segment where maximum value is added" to expand the category to six types. The types of global integration and national responsiveness were

¹²Quotation from the interview with the auditing director of Acer group.

¹³Interactive management controls demand regular attention from operating subordinates at all levels of the company. Programmed controls, by contrast, rely heavily on staff specialists in preparing and interpreting information. Data are transmitted through formal reporting procedures and operating managers are involved infrequently and on an exceptional basis. (Simons, 1987, 1990)

added. Global integration is a predisposition to ethnocentrism but the maximum value is added upstream. National responsiveness is a predisposition to polycentrism but the maximum value is added downstream. The research used Chakravarthy & Perlmutter's categories to identify the existence of distinctly different patterns in the case firms. Each case firm will be discussed as follows.

7.2.4.1 Tatung

Tatung always clings strongly to its corporate culture. Centralised decision making, patriarchal leadership style, cultivating managers' philosophy from the university stage, and strong uniform policy and strategy on finance and personnel all form the character of Tatung's culture. Its chairman continually cultivates its philosophy at his course and operating meetings. Owing to managers' long-term affection for the firm, Tatung culture is deeply ingrained in their minds. The longer the tenure, the deeper the affection. So when their managers are sent to each operation, they take Tatung culture with them¹⁴. As to the differentiated fit, compared to other groups it is more difficult to realise. Generally speaking, overseas subsidiaries have more authorisation than domestic operations¹⁵. They are more decentralised in purchasing and personnel decisions¹⁶, but significant decisions still need to be approved by its chairman. According to the above analysis, Tatung keeps its strategic predisposition as "ethnocentrism" and it can be classified as the type of "high shared values and low differentiated fit."

7.2.4.2 Lite-On

Compared to Tatung, Lite-On shows weak corporate culture. Under the framework of professional management, they focus on state-of-the-art technology, product quality and innovation, and globalisation. They encourage their foreign operations' managers to use local resources efficiently, based on a set of core values. Its president said: "If the people we send to overseas companies have a strong mission to get an expected result quickly, it is negative." Under the concept of "enjoying local infrastructures¹⁷", they use local people as senior managers when possible so they can run their business. As to the relationship between the headquarters and overseas operations, there are two types of operations: directly reporting to SBUs and directly belonging to the president. The president strongly emphasises the relationship between headquarters and operations, as he said: "I think in matters of business disciplines, principles, and concepts between headquarters and subsidiaries we need to spend more

¹⁴Quotation from the interview with the deputy chairman of the auditing committee.

¹⁵Quotation from the interview with the secretariat director.

¹⁶Quotation from the interview with the deputy controller.

¹⁷Quotation from the interview with the president of Taiwan Liton Co.

time to define clearly and review which things are really working by subsidiaries." Different levels of operations have different decentralisation, as its controller said: "If the subsidiary is directly subordinated under the president, such as in the British operation, then its manager enjoys more decentralisation." The British operation operates its business like an independent company in the UK. The deputy controller of Taiwan Liton said: "The British company enjoys high decentralisation in decision making. We do not get involved in its financial accounting but just review its budget and capital expenditure." The managing director of the British company described its operation as follows:

"We are totally independent in operation, including marketing, financing, manufacturing, R&D,...etc. The headquarters gives us advice, not instructions. They let us independently make decisions for business here. They just judge our performance by the profitability and return on investment, but they help us if we ask them."

According to their "national responsiveness" of strategic predisposition, Lite-On has quickly developed their own type of "high differentiated fit and low shared values" in the last couple of years.

7.2.4.3 Mitac

Mitac seems at the midway between Tatung and Lite-On. Although they emphasised decentralisation, they prudently kept in line and focused on discipline and openness, such as the uniform "BEPaid" report and protocol communicating language on their network organisation system. They expected localisation, but in the past years they have suffered many problems and they continually changed their directions and approaches¹⁸. "Keeping centralised thinking"¹⁹ seems to be traded-off with localised direction. A conservative attitude and to some extent in-group selection of managers of overseas operations limited their localised expectation. As to the relationship between headquarters and overseas operations, there are different extents of authorisation. Its strategic predisposition is a mixed style of "geocentrism" and "ethnocentrism." Its vice chairman said: "We use different models for different countries." He continued: "Each overseas operation has a different scale, history, and special environment. For instance with the British operation, we give it great decision power including decisions for developing a new product." The British operation uses a matrix organisation system under which each function such as product, finance, personnel, sales, quality...etc., can contact relevant Taiwanese units and simultaneously give their E-mail copies to its managing director. Unless decisions are

¹⁸From the interview with the vice chairman of Mitac group.

¹⁹Quotation from the interview with the chairman of Mitac group.

important, each function can communicate directly with the relevant Taiwanese units. Owing to the impact from a conservative philosophy, however, the decentralisation especially in the financial area, still has some distance to go. At the moment Mitac appears to fit the type of "intermediate differentiated fit and shared values."

7.2.4.4 Acer

Basically Acer has a similar environment to Mitac, but Acer makes more allowance for decentralisation of operations and sharing more corporate values between headquarters and operations. They permit local managers to make their own decisions, as its chairman said: "Every manager can run his segment as his own business; that is, every manager is a boss." They also sent some senior managers to overseas operations, but compared to Tatung and Mitac they use more local people as senior managers. Besides, under their "local touch" strategy they have started to share ownership with some local partners in some areas. Differentiated fit will be the way for their foreign operations in the future. On the subject of shared values, Acer has some obvious value-sharing between headquarters and wider operations. They always share their aggressive mission by common slogans for pursuing excellence, keeping an informal and flexible system to face change, trusting their managers based on the motto "Human nature is essentially good", ranking the customer as the highest priority, teaching managers business sense to run their businesses. The chairman disseminates them through each level of organisation and each operation head keeps his vow to cultivate those common values²⁰. Objectively, Acer has successfully built common values within their group. Acer belongs to the type of "intermediate-high differentiated fit and shared values."

As to the relationship design between headquarters and operations, they keep their operations as decentralised in decision making as possible, but they keep some important functions at headquarters or regional headquarters to take care of complicated problems. Its strategic predisposition focuses on "geocentrism" with "regiocentrism". Each operation has the same power within the framework of client-server organisation, but each regional headquarters plays an important role in strategy-setting and management. Its sourcing VP said: "We decentralise to each BU as much as possible, but we keep some basic and comprehensive functions at headquarters for ease of handling an integrated situation, such as purchasing for main parts, finance, auditing, legal business, public relations, and market survey. Each function fully communicates with each BU which still has these similar functions...That is actually a matrix organisation." Another VP also gave a similar description: "We put all complicated matters to headquarters or regional headquarters, and leave simpler

²⁰Quotation from the interview with the chairman of Acer.

decisions to the operational level of the business." Each business unit has the same power of authorisation to develop its business, as its senior VP said: "There is no difference between domestic operations and overseas operations. They are all our business units and no matter what method of operating or finance they use they are equal." Even under the European RBU covering the whole European area, each country's operation still owns quite a large power of authorisation. The president of the European headquarters said: "Owing to the great distances, we cannot directly touch each country so we cannot but decentralise." Its general controller of Europe also said: "The client-server system makes management simpler and each country can easily develop its system." Each country head can make its decisions quite independently in the autonomy, as the managing director of Acer's German Company said: "Acer in Germany actually manages the company entirely. More or less all decisions or all responsibilities are taken by the management here. There are only a few things which need to be approved from corporate headquarters."

7.2.5 Degree of Control among Case Firms

According to above descriptions, the patterns of degree of control in case firms have already appeared. Tatung keeps its powerful central leadership, focuses its control on financial objectives, retains centralisation in important decisions, and maintains an "ethnocentric" strategic predisposition between its headquarters and foreign subsidiaries. Lite-On gives its divisions more delegation, focuses on both strategic and financial objectives, retains decentralised decision making system, and maintains a "national responsiveness" strategic predisposition between the headquarters and foreign operations. Mitac respects businesses' autonomy but still has a strong central leadership, focuses financial objectives and keeps centralisation in financial decisions, and maintains a mixed strategic predisposition of "ethnocentrism" and "geocentrism" between its headquarters and foreign operations. Acer has a strong central leadership, focuses strategic and financial objectives, retains a decentralised decision making system, and maintains a mixed strategic predisposition of "geocentrism" and "regiocentrism" between its headquarters and foreign subsidiaries. Integratedly speaking, the sequence in the spectrum of the extent of financial control tension is Tatung, Mitac, Lite-On, and Acer.

7.2.6 Proposition and Discussion

The proposition 2-1 could not be accepted by this research. The degree of control was more or less affected by national home culture (for example each case firm

used top-down approach in the process of objective setting), but there were still differences among case firms in the degree of integrated control. Tatung and Mitac had a greater degree of control and may conform with the cultural proposition, but Lite-On and Acer significantly differed from the cultural proposition.

The results showed a weak relationship between national culture and the factor of the degree of control. Many reasons may explain this phenomenon. One reason for the unexpected finding is that some of the cultural dimensions presented by Hofstede (1980/1984, 1991) may not have had strong effects on preferences (Chow et al., 1994). Many cultural researchers (such as Hofstede, 1991; Chow et al., 1994; Merchant et al., 1995) could support their hypotheses or propositions based on Hofstede's cultural dimensions. However, differing from prior studies, this research compared the degree of control in the case firms in Taiwan (as an intracultural analysis). The "positioning effect"²¹ could not be shown, but only the "patterning effect."²² Because Taiwan had its special historical background, as described in chapter 5, different management styles, including American, Japanese, and Chinese styles, existed in the different case firms. Naturally, the "patterning effect" could appear in the research. Finally, with increasing international contact, some aspects of Taiwanese leaders and senior managers' behaviour have been changing. These managers are building a new management culture, the way these leaders "think, feel, and act" (Hofstede, 1991; Merchant et al., 1995). These cultural changes are, in turn, reflected in Taiwanese firms' management practices (Merchant et al., 1995).

7.3 Budget Emphasis

Proposition 2-2: The leaders of Taiwan headquarters affected by their cultures use a low budget emphasis approach to evaluate their operational performances.

As the literature review in chapter 2 shows many researchers focus on the relationship between budget and management control systems. Whether a company emphasises the budget has a close relation to the nature of its financial control. This research judges whether the budget is emphasised by a firm through its budget practices and performance evaluation style. As a result the patterns of budget emphasis in the case firms will be used for the purpose of examining proposition 2-2. Another purpose of this section is to contribute its result, with the other two factors, to evaluating the style of financial control. The topic will be discussed further in the next chapter.

²¹See section 2.2.2.

²²See section 2.2.2.

7.3.1 Budget Practices

Table 7.3 The Comparison of Budget Practices between Case Firms

Main items	Tatung	Lite-On	Mitac	Acer
Use of planning manuals	Formal manual	Guideline	Guideline	Informal guideline
Budget committee	<ul style="list-style-type: none"> • Formal • Including all seniors and heads 	<ul style="list-style-type: none"> • Formal, but less than Tatung • Including all senior managers 	<ul style="list-style-type: none"> • Formal, but less than Tatung • Including top managers 	<ul style="list-style-type: none"> • Informal organisation • Including all senior managers
Budget preparation	More than three months	Two months for three-year strategic planning and one month for annual budget	About two months	Less than two months
Linkage between budget and strategy	Low	High	Low	High
Long-term budget	Seven-year budget, but only covering turnovers and profits	Three years budget	Informal and very rough	Using long-term visions instead of long-term budget
Objective setting	Top down	Balance top down and bottom up	Top down	Top down
Tightness of budget	Strictly tight	Reasonable	Tight	Challengeable
Accuracy of budget targets	High	Intermediate	Intermediate	Low
Frequency of control reports	Monthly reports	Monthly reports	Monthly reports	Monthly reports
Performance monitoring	<ul style="list-style-type: none"> • Weekly operating meeting • Standard costing • Variance analysis • Periodic report in operating meeting 	<ul style="list-style-type: none"> • Monthly and quarterly review and analysis 	<ul style="list-style-type: none"> • Uniform "BEPAID" reporting system • Monthly review and analysis 	<ul style="list-style-type: none"> • Informal meeting • Focusing on bottom line
Importance of meeting budget targets	Very important	Depending on situations	Important	Depending on situations
Budget relating to incentives	Close relation	Incentive relating to corporate profit	Incentive relating to corporate profit	Incentive relating to individual contract

Budget practices (Table 7.3) covering the whole budget cycle show different patterns in the case firms. Tatung emphasises the budget most of all. Through its budget cycle, formal, hierarchical, integrated, and strict planning and controlling practices could be easily found. Mitac also regards the budget as a main tool of management. Its leader designed a uniform management report ("BEPAID") to diagnose whether its budget is successfully carried out. However, compared to Tatung, it uses a less formal, tight, and hierarchical approach in budgeting procedures and the integration between its planning and controlling functions also could not compare with

Tatung. Lite-On does succeed in the planning function and its strategic planning and master budget are matched very well. However, owing to keeping long-term strategies and emphasis on the philosophy of harmony, its control seems loose. Acer emphasises setting challengeable objectives for the purpose of objective management. It broadly uses simple, speedy, flexible, and informal approaches in its budget practices. Its budget control is flexible and loose.

7.3.1.1 Tatung

Compared to other case firms, the budget is strongly emphasised in the Tatung group. Budget manual, budget committee, a long period for budgeting, standardised budgeting procedures, standard costing, strict budget control, and short period feedback frequency of operating meetings all symbolise the budget emphasis in the group. In the preparation stage, all senior managers and centre heads have to participate in the budget committee for discussion and communication. One of its auditing committee said: "Our budget committee consists of each head of profit centre and they all need to report in the meeting. All senior managers will offer their opinions in the meeting." He continued: "The chairman will give some instructions or opinions." The headquarters always gives a great amount of orders, commands, and advice when targets are set.

The group also prepared a seven-year long-term budget as a vision of future development, but the long-term plan focuses on significant investment and equipment and sales and profit are only rough figures²³. Individual operations focus only on short-term budget, as the director of the Taiwanese operation said: "Because the company uses each profit centre to evaluate performance, each centre takes care only of short-term benefit. All long-term plans are developed from a top-down approach."

After preparing the budget, they have a formal procedure to control the budget. Its deputy controller said: "We have a powerful budget system. Once the budget is set, if your budget is not enough, you need to give full reasons when asking top management to approve more. Sometimes our budget control is even more strict than government institutes." One of its auditing committee also said: "We follow-up the budget performance weekly, monthly, quarterly, half-yearly, and yearly. It is already near a standard procedure and we compare relative performance." Top management looks at the budget target as each centre's mission, and the centre's manager is expected to achieve it. Its deputy auditing committee said: "We do not consider uncontrollable items in our budget evaluation. After setting the budget target, each centre manager must respond to achieve it." The director of the Taiwanese operation also said: "So you need to keep smart to set your targets, and once you have set the

²³Quotation from the interview with the deputy chairman of auditing committee.

target you have to achieve it." The time span of feedback performance to employees is quite short. They evaluate employees' performance per quarter and divide them into different grades. Different grades have a different monthly bonus.

The budget performance of each operation is essentially linked to the incentive system. The better performance the unit has, the more year-end bonus it gets. Of course, each operation cares about budget performance, as the director of the Taiwanese operation said: "On the subject of whether attaining the target could affect the bonus and future salary... The bonus is always issued by plant." In the British operation, although it lacks a formal bonus, the budget performance still affects their next year's salary. Its financial controller said: "I believe when people's performances are bad, they should get nothing. If their performances are excellent, their rewards should be better and better." In addition to the budget figures the group still refers to some nonfinancial indicators, such as turnover rate, rate of return, and inventory control, as one of its auditing committee said: "Sales and profits are only part of the key figures." Owing to the impact of patriarchal philosophy, however, they emphasised co-operation more than competitiveness within the group so they still considered different situations for different units when paying the annual bonus. Normally the incentive showed only minor differences among operations, as the deputy chairman of its auditing committee said: "I think the incentive system is not enough to motivate operations." He continued: "If an operation manager achieves budget target, we need to give him a proper incentive; otherwise, he needs to accept a suitable punishment... We need to get more clear responsibility from the budget system."

7.3.1.2 Lite-On

Objectively speaking, Lite-On did its planning very well, especially the linkage between three-year strategic planning and its annual master plan. They expended lots of time discussing and revising their strategies, including market growth, technical research and development, manufacturing strategy, and long-term investment. Strategic planning was suggested by SBUs and then summed up as the framework for discussing²⁴. Its president said: "For avoiding too much emphasis on short-term profit such as is the American way, we emphasise that senior managers need to have long-term and middle-term planning ability." When they prepare strategic planning, they use the "SWOT" technique²⁵ to analyse it and they review it per half year.²⁶ Based on strategic planning, they prepare the annual master budget. Its controller said: "We expend lots of time in budgeting. All senior managers participate in the budget

²⁴Quotation from the interview with the President of Taiwan Liton company.

²⁵It is a type of means for analysing strategic planning with "SWOT" matrix. "SWOT" means "Strength, Weakness, Opportunity, and Threat."

²⁶Quotation from the interview with the deputy controller.

meeting. Each SBU needs to review its budget many times, then send it to the meeting. "Owing to stable growth in recent years, the middle planning and annual budget link is quite good and budget accuracy is relatively high.²⁷" Its controller said: "We have had almost no need to revise the annual budget in recent years."

As to the management relationship between headquarters and overseas operations, the group emphasises more systematic management. They respect the operation's autonomy, as its British managing director said: "When we set budget we are to a certain amount conservative, but we don't try to be conservative. Normally speaking, our budget presented to Taiwan to be reviewed is always only slightly changed, because they realise that we try to understand local conditions." There are some channels for communication, but mainly it is by a monthly reporting system. Its president said: "We communicate with overseas operations by monthly reporting. If there are problems we can discuss them by telephone or fax, but if there are consistent problems then we will hold a face to face discussion."

On the control function, although they have a monthly review system, they put more emphasis on whole company basis. There is little control of each unit within the company, as one of its associate VPs described: "I feel in Lite-On culture there is no real budget control in each department, but the company strictly controls four items: operating revenue, material cost, capital expenditure, and human resources."

As the planning model prepared through each SBU, and the incentive model emphasising whole company involvement are inconsistent, there is little direct relationship between the budget performance and the incentive system. Its controllers said: "We have no open transparent incentive system to let each BU understand how much incentive they can get under what performance level." Though they try to do as well as in the past year, because of fluctuating factors it is not easy to set reasonable levels for different BUs. Besides, the top management of the group prefer the philosophy of keeping harmony rather than building competitiveness within the company. Its controller said: "The company policy emphasises the comprehensive incentive system. We look upon the company as a whole, not by SBU." Obviously, the designing of the incentive system significantly decreases the function of budget evaluation for different BUs and departments within the company.

7.3.1.3 Mitac

In budget preparation, Mitac has a clear process for objective setting. Its top management prefers to set some clear financial targets, such as R&D, profit, and turnover, and communicate down through the organisation. The core management team participates in important strategies and development directions. Then they start to

²⁷Quotation from the interview with the controller.

prepare the detail budgets. Mitac keeps relatively flexible in committees, processes, discussions and meetings. It takes about two months for budgeting, but focuses on the annual budget only. The long-term budget seems unimportant to the firm.

As above, Mitac's senior managers emphasise discipline and open exchange of information. The chairman designed a "BEPaid" report as a uniform report for overseas operations as a comparative, diagnostic instrument. He said: "If an operation cannot attain its budget objective, then all "BEPaid" problems will happen." So essentially they emphasise the budget as a management tool. Its vice-chairman said: "We emphasise the budget objective, especially in foreign operations." Its chairman further described his budget attitude thus:

"Budget is very important for management. If we want to control we need to use budget as an instrument. Before budgeting we need to consider company strategies first...Those strategies can easily change the budget structure. If you have set a budget, then actions must happen at once. For example if you want increased sales, you need to hire more people first."

The president realised that "it is very important to handle whole group and management operations through the budget system." In domestic operations, as they are close to headquarters, it is easy to take control and set regulations through VCR meetings, but of overseas operations, its controller said: "We can only give them some guidance, then we ask them to report back to headquarters periodically so we can compare their actual performance with budget target."

To attain the budget target is very important. Each half year they hold a kick-off meeting including both a board of directors' meeting and an operating meeting simultaneously to discuss the budget objectives and how to achieve them. Its chairman said: "We discuss budget at the directorial board meeting first, then we start the operating meeting which all senior managers and operational heads have to attend and discuss how to attain budget objectives. The manager who could not attain budget would be fired." There is a fundamental relationship between budget and target system, but budget is not the only factor in the incentive consideration.²⁸ Because the environment is different, there are relatively different incentive systems in different companies within the group²⁹, but the rate of attaining the budget objective is the most important factor, and the weight is about two-thirds of all factors.³⁰

The perception of budget emphasis is somewhat different between domestic operations and overseas operations. Owing to the difference in compensation structure, the Taiwanese operation essentially offers more contingent rewards compared to pre-set rewards for their employees so they are all concerned about attaining budget target.

²⁸Quotation from the interview with the president of Mitac Inc.

²⁹Quotation from the interview with the president of Mitac Inc.

³⁰Quotation from the interview with the vice chairman of Mitac group.

The vice president of its Taiwanese operation said: "Financial information is quite important in our operations. We review monthly reports to see whether we achieve the budget target." However, owing to suffering loss in the past few years, employees' morale seems not too high. Its vice president said: "Concerning profit, we have little expectation because we have suffered continuous big losses in the past couple of years." In the British operation, except for the managing director there is no formal incentive system, as its managing director said: "My bonus directly relates to my budget performance. Other people are very little affected by the budget performance, but if we have super performance they can get some bonus." Headquarters evaluates the subsidiary in many ways, such as profit target, the six critical factors in the "BEPaid" report, selling products for headquarters, and sales objective, but as its managing director said: "Making profit is most important."

7.3.1.4 Acer

Except for the profit target, Acer's top managers did not emphasise the traditional budget too much: "Budget is not Bible" has become a popular slogan. Its director of management analysis said: "We focus only on some key figures not the detailed budget." Its auditing director also said: "We review the budget performance but we focus on finding the reasons we cannot achieve, not on following up who is responsible. We just want everyone to learn something from past experiences. The more tuition one gets, the smarter one becomes." In face of a fast changing industry, the forecast ability for the budget figures suffered a strict test. Its chairman said: "I remember in the 1980s, each year we grew more than double and always exceeded profit targets, but we always had significant variances between budget and actual figures. At the moment the estimates are more close to the budget figures, but variances are still significant." Acer always keeps its budgeting in an informal and flexible way. Its top management sets clear targets and missions before budgeting and then communicates down through the whole group, but each unit has relative room to discuss or challenge them.

On strategy, top management keeps their business ready for change and intends keeping overheads and expenses behind sales revenue. Its chairman said:

"In my philosophy, I do not emphasise the budget too much, because if you do, it will intangibly increase the overheads and other expenses... Because a situation has already changed and you are still following the original plan, big problems arise and I am reluctant to let that happen. I even intentionally put off some long-term overheads or expenses, such as personnel recruitment and long-term commitments, for as long as possible before the business activities are realised."

In budget preparation, they use the "business model³¹" as a quick way instead of traditional budgeting. Its senior VP described their evolution in budgeting:

"Before 1990, the group worked out its budget by very complicated processes and consumed a great deal of time in budget preparation, but, as the industry changes so fast, although we expend lots of time we still cannot overcome forecast problems. From 1990, we had a big change in budgeting. We started to emphasise business model. We asked operations' managers what their business model was.... If they made wrong assumptions, they could not sell their products well and achieve their target. At last they would lose their competitiveness. So when we prudently determine the definition of each product market, each business unit is required to propose its business model."

Its chairman is satisfied with their business model approach and he said: "We expended lots of time in talking about the business model. When I went to each operation I often found they were wrong in preparing their budgets. Their gross profit rate was too high... Because they had over-expectation of gross profits, it resulted in excess of overheads. They will gradually lose their competitive ability because of over-expectation in gross profit rate." So normally he asks his operation's managers to keep their correct business model by decreasing their gross profit rate to increase their market share. He continued: "By decreasing gross profit ratio and increasing advertisement, the administrative expense rate naturally decreases and efficiency increases and finally the profits will increase. We consider this policy sustainable and it is working."

After setting the business model, each operation has its structure made up of revenue, cost and expense. It is easy to build or change the whole budget once one has sales estimates or the changing sales forecast. Its senior VP said: "We have no time to prepare a new budget, but if necessary we only adjust the budget figures on the basis of the original business model and change nothing in the structural percentages."

Although top management did not emphasise the budget too much, they still care to a large extent about turnover and profit, especially profit. Owing to the incentive programme for operations, the profit objective becomes a very important performance indicator, especially for overseas operations under the RBU system. Its senior VP said: "We appraise the units' performance by bottom line. If they achieve the original budget targets, they can enjoy the incentive programme. So we still need budget objectives. If they attain their objectives they have a bonus and if they exceed the target they will have more. The incentive programme is linked to the budget target." Management in the Acer group see the main function of budget to be a means of motivating their managers to pursue their dream. Its chairman said: "I always set

³¹ It represents the structure among revenue, gross profit, and cost and expense.

some objectives for an operation but I tell its head I may change the objectives in the next year... I do not keep the objectives too fixed and I change them stage by stage. When setting objectives, we set different targets for different units... Of course the objectives will be reasonable, attainable, and comfortable." Normally they set their integrated objective in their half yearly summit meeting where each operation head and senior managers of BUs must attend. They also discuss in the meeting the game rules and directions for future development.³² Its auditing director said: "Using the theory of objective management, the chairman wouldn't set high objectives for them, so that the targets can be easily attained and they can enjoy more incentive bonus. Simultaneously, each unit will control its cost and personnel expense to pursue its objective." Each overseas operation has great ambition to achieve their budget bottom line as an index of realisation of entrepreneurial spirit. Their heads focus on the budget target more than the top management level does and domestic operations' managers who put more emphasis on product and manufacturing.

As to the long-term budget, the group uses some long-term vision instead of a middle plan. Its chairman said: "Because the industry fluctuates so much we can't have a detailed realistic middle plan, such as a five-year plan, and I realise it is not necessary." However, Acer successfully uses long-term vision with mission slogans, sharing a common aim, and with a rough middle-term plan.

7.3.2 Performance Evaluating Style

Table 7.4 The Comparison of Performance Evaluating Style between Case Firms

Participants	Tatung	Lite-On	Mitac	Acer
Central executive officer (CEO)	BP	PC	Chairman: BC Vice-chairman: BC Presidents: PC	NA
Central financial officer(CFO)	BP	BP	BP	BP
Taiwanese operation's head	BP	PC	NA	PC
European operation's head:				
British operation	BP	PC	BP	BC
Dutch operation	-	-	-	BC
German operation	-	-	-	BP

Following the classification of evaluative style by Hopwood (1971) and the distinction between high and low budget-emphasis by Brownell (1982), the interview contained the measured scale used by Otley (1978) to understand the extent of budget emphasis in the case firms. In the Brownell approach, a high budget-emphasis contained budget constrained (BC) and budget profit (BP) styles and a low budget-emphasis contained profit conscious (PC) and nonaccounting (NA) styles. Differing

³²Quotation from the interview with the financial VP.

from the literature survey of subordinates to understand leadership evaluative style, this research initially explored budget emphasis from headquarters, but also checked it at operational level. The results (Table 7.4) show that different patterns of budget emphasis in different firms.

The leaders of Tatung and Mitac significantly followed the high budget-emphasis, but the leaders of Lite-On and Acer could be classified as low budget emphasis. In addition, almost all central financial officers in different firms chose BP style. Because the case firms are all big MNEs, they more or less used budget and profit performances as important evaluation criteria. Perhaps they knew better than other managers about the important position of budget and profit in performance evaluation. Also, they possibly adopted a narrow viewpoint on financial position. As to the operational level, Tatung's operations clearly showed BP style and conformed with its headquarters; Lite-On's operations followed its leader's style and all followed the PC style; and Mitac and Acer showed inconsistency between their headquarters and operations. Mitac's leader and controller all followed high budget-emphasis, but its professional managers in Taiwanese operations cared more about profit and non-accounting indexes especially efficiency, quality and effort. Mitac still used a centralised approach in financial decisions, its leader still strictly handling them, so its professional managers naturally chose more non-accounting indexes. In its British operation, however, owing to market-oriented focus, the budget of profit objective significantly represented its managing director's performance. In Acer, its leader Stan Shih obviously put greater emphasis on non-accounting factors such as handling people, quality, and efficiency, but under the framework of the client-server system each operation could independently decide its own evaluative style. In addition, its European regional headquarters also played a critical role on its operations' performance evaluation. So it seems natural that differences existed between headquarters and operations or even among its operations.

According to the results of the interviews, from the viewpoint of central headquarters the research classified Tatung as the type of high budget-emphasis, and Lite-On and Acer belonged to the type of low budget-emphasis. The research classified Mitac as an intermediate type.

7.3.3 Budget Emphasis among Case Firms

From the above analyses of budget practices and leader's evaluating styles, Tatung obviously put more emphasis on an integrated budget system and was among the high budget-emphasis firms. Mitac's chairman used the budget as a main means of system management, but his philosophy seemed lacking in consistency with his core

professional managers. Lite-On focused on the planning function, especially on strategic planning, but compared to Tatung and Mitac, it kept a loose control on the budget. Acer used its budget as a means of interactive controls, and its budget control was very flexible and loose. Overall, the sequence of spectrum on budget emphasis in this research is Tatung, Mitac, Lite-On and Acer. Tatung is classified as the type of "high budget emphasis", Lite-On and Acer belongs to "low budget emphasis", and Mitac is "intermediate budget emphasis."

7.3.4 Proposition and Discussion

The proposition 2-2 could not be accepted by this research. Because the budget is a basic means in the management of multinational firms, each case firm used a budget system more or less in its routine management, especially in the planning process. But with different leaders' philosophies, different extents of budget emphasis existed among case firms when they evaluated subordinates' performances. Tatung belonged to the style of high budget emphasis, Lite-On and Acer were the type of low budget emphasis, and Mitac was in the middle.

The results showed a weak relationship between national culture and the factor of budget emphasis. Many reasons could explain the results of this factor on the degree of control (see section 7.2.6), including the shortage of Hofstede's cultural dimensions, patterning effect, special firm's historical background, managers' learning and adapting. In addition, the effect of budget evaluative style seems to have a deep relationship with many contingencies, such as strategies (Simons, 1987), job-related tension (Hopwood, 1972), and participation in budget (Kren, 1992). That would seem to be why some researchers (such as Hopwood, 1972 and Otley, 1978; Otley, 1978 and Brownell, 1982) have had contradictory findings. This research focused not only on the budget evaluating style but also on the budget practices in the case firms. In examining the budget style, in contrast with prior studies, different aspects from different positions were probed.

7.4 Selection of Managers

Proposition 2-3: The leaders of Taiwan headquarters affected by their cultures choose their important managers from their in-groups.

The main purpose of this section is to compare the factor relating to the selection of managers in the case firms. Different patterns in the case firms will be

presented in each theme. As a result the patterns of the selection of managers in the case firms will be assessed in examining proposition 2-3. Another purpose of this section is to contribute its result, with the other two factors, to evaluating the style of financial control. The topic will be discussed further in the next chapter.

Table 7.5 The Comparison of Main Items of Managers' Selection between Case Firms

Main items	Tatung	Lite-On	Mitac	Acer
The company's policy of manager selection	Senior, loyalty, and performance	Ability and performance	Loyalty and performance	Ability and performance
Personnel perpetuation	Key positions developed from home country everywhere in the world	Key positions developed from local country in their own country	Key positions developed from home or local country	Key positions developed from regional headquarters
Strategy in organising foreign operations' managers	<ul style="list-style-type: none"> • Gradually localised • Chinese keep senior positions 	Quickly localised	<ul style="list-style-type: none"> • Considering team work • Preferring Chinese as head 	<ul style="list-style-type: none"> • Local touch • Work orientation
Key positions in European operations: <ul style="list-style-type: none"> • Operation's head • Financial director • Logistic director • Marketing director 	<ul style="list-style-type: none"> Chinese manager Chinese manager Chinese manager Chinese manager 	<ul style="list-style-type: none"> Local manager Local manager Local manager Local manager 	<ul style="list-style-type: none"> Chinese manager Local manager Chinese manager Local manager 	<ul style="list-style-type: none"> Chinese/local Chinese/local Chinese manager Local manager
Personnel evaluation and control	Home standards applied for persons and performance	determined locally	Home standards but are weighted to suit local conditions	determined regionally
Considering cultural factors	Strong	Weak	Medium	Weak-medium

With a strong corporate culture, Tatung has a special philosophy in the selection of managers. Its top management emphasises "pure blood" and uses managers more from the in-group, and then slowly localises in foreign operation. Lite-On shows a different personnel philosophy. Under the framework of professional management, ability and performance become its most important indicators in selection of managers. For foreign operation, different strategies were used in Asian and European countries³³, but all quickly localised in foreign operations. Compared to Tatung and Lite-On, Mitac seems in the middle. Its top management emphasises more the employees' loyalty and focuses on better team work in foreign operations. Using Chinese managers as overseas operation heads seems an obvious trend. Compared to Mitac and Lite-On, Acer may be in the middle on the selection of managers. Its top

³³ The company set up many plants as manufacturing bases in Asian countries through greenfield operations and they belonged to different SBUs, and most MCSs were transferred to new plants. In Europe, its operations were bought from other companies and it directly belonged to the president. It seemed to lack MCSs transfer and localised immediately.

management selects managers by focusing on their ability and performance, especially their aggressive talents. It emphasises local touch strategy but still keeps a few Chinese as key managers in each operation because of the need for work orientation. Each case will be discussed further as follows.

7.4.1 Tatung

Compared to other firms, Tatung selects its managers more from the in-group. Since the beginning, Tatung has adhered to the management principle of "education-and-industry integration." The education-and-industry co-operative programme between Tatung Company and Tatung Institute of Technology was conceived and created by the founder and former Chairman Shan-Chih Lin in 1941.³⁴ Almost all managers graduated from Tatung Institute of Technology, so they have the same educational background. The chairman of Tatung group, also the president and professor of Tatung Institute of Technology, strongly emphasises education and training. Each student and manager is required to attend his "operating management course." In his weekly seminar he not only teaches them management knowledge, but also cultivates the Tatung culture. In addition, he also describes corporation strategies and policies.³⁵ The deputy chairman of its auditing committee said: "Because the chairman continually educates us in the management concept and philosophy at the college and company, Tatung culture is deeply cultivated in our minds." As the chairman has handled the group for nearly fifty years, his philosophy and behaviour significantly affect his managers. The deputy chairman said: "With the intangible impact, the senior managers and middle managers all are deeply influenced by his philosophy; that is Tatung culture. The longer the tenure, the deeper the affection. So when managers are sent to each operation, Tatung culture is there."

Tatung is a publicly-owned corporation having more than 170,000 stockholders, but still keeps some colour of the traditional Chinese family business. The "pure blood" is quite important in manager selection. Kin³⁶ and in-group managers all occupy important positions. The concept of order is deeply rooted in employees' mind. Harmony and co-operation are always emphasised by senior managers. Tenure is still an important factor in promotion and young talents do not easily find important positions. One senior manager who left Tatung many years ago said: "Tatung is more hierarchical and each person has his own position." and one of its senior managers said with deep feeling: "Tatung is not a place to show individual ability... Most of Tatung

³⁴Quotation from the speech of W.T. Lin, the president of Tatung UK company, in the 7th Annual Conference on Economic Promotion for Overseas Chinese in Europe, 1995.

³⁵Quotation from the interview with the deputy chairman of the auditing committee.

³⁶The chairman placed his five children in important roles in the group.

employees keep a 'neutral manner' rather than to show their talents."

As to the selection of managers for overseas operations, Tatung prefers to send their senior managers to overseas operations, but owing to cost consideration, they recruit basic managers locally as much as possible. Its deputy controller said: "We always send key managers to overseas operations from headquarters." Its secretariat director also emphasised the linkage between corporate culture and the personnel policy: "We record the chairman's philosophy, policy, and concept for everyone, including overseas units... That is why we can keep Tatung culture even in overseas branches as well."

In the Tatung UK company, though it bought its business fifteen years ago, its localisation is still quite slow. At the moment except for the president and two joint managing directors from headquarters, most senior positions are still held by Taiwanese people but more and more middle and basic managers are English. Its deputy controller said: "Most senior managers in the British company have stayed at headquarters for many years, and they are asked to come back to headquarters for reporting and meeting periodically. They have to contact and communicate with different departments of head office and they get the new operating philosophy in these meetings." He continued: "So even if a UK company has been local for a long time, actually it still keeps strong Tatung culture." From the opposite viewpoint, this personnel policy may hamper the localisation for overseas operations, as its secretariat director said: "Sending managers from Taiwan headquarters, of course, makes it more easy to execute company policy, but from a long-term view we still need to localise more."

7.4.2 Lite-On

Under the framework of professional management, Lite-On shows its weak corporate culture by accepting lots of professional talents as their management team. Its president said: "Weak corporate culture is more helpful to the development of a multinational corporation." To foster an entrepreneurial and risk-taking culture, they continually use new management techniques via most advanced communication systems such as video conferencing and computer networks to enhance intra-group communication and speed up decision making³⁷.

Because of the strongly localised philosophy, they did localise quickly and successfully. Its president talked about his philosophy of localisation:

³⁷Quotation from 1995 Lite-On group Profile.

"We believe when we enter a region or a country, we need to enjoy the local infrastructure, including market resources, people resources, and technical resources. So if you do not hire local people to run the business it is impossible to touch all those resources."

He emphasised: "Only local people can know how to use local resources." They use different strategies for different types of overseas operations. For greenfield operations, such as operations in Malaysia and Thailand, they set up systems and quickly delivered these systems to local people. Its controller fully described the situation: "When the company was set up we always sent lots of people including each department head to handle each function....Then we trained local people as managers and transferred our management system to them." At present in the Thai operation only the president comes from Taiwan headquarters. Other managers are already all local people; even the Malay operation, set up recently, now has only four people from headquarters. Its controller said: "This is our personnel style with an overseas company." But he still a little conservatively said: "It seems impossible to become totally localised. We realise at least we need to keep a president and financial manager there." The group seems quite to respect the operation of purchased companies as an autonomy, such as the British operation and other small trading companies. They trust local managers to run their branches. At present, the presidents of British and American operations are all local people and in the operations in Japan, Hong Kong, Singapore and most trading companies their managers are almost all local people.³⁸ Its planning director said: "Because local people are familiar with the local environment they can easily make the right decisions."

Lite-On took over the British operation in 1991 and they only sent one assistant there for convenient communication for the first two years. At present all managers at the British operation are British people, as its managing director said: "Our operation is totally independent."

7.4.3 Mitac

Mitac keeps a prudent attitude in its personnel policy and managers' selection, especially in the overseas operations. In the middle of the 1980s, as the group continually maintained fast growth and its managers were absorbed by big foreign companies, Mitac could not but begin to use lots of external human resources as its senior managers or consultants. Those people, however, could not blend in the real Mitac culture in which people are always working hard and remaining frugal.³⁹ Of

³⁸Quotation from interviews with one of its VPs and the Planning Director.

³⁹Quotation from "The Story of Mitac."

course, the result was not good. Later, the chairman said: "I keep a very prudent attitude towards those managers from outside and I emphasise more and more the loyalty of employees within the company."⁴⁰ Its vice president of the Taiwanese operation said: "The chairman strongly emphasises employees' honesty and integrity."

The group has learned to be more localised in its overseas operations, but it suffered a great challenge. Its vice-chairman described the change: "We are still learning and changing continually. At first we sent senior managers from Taiwan, then we hired managers locally but we found some problems. Then we changed some policies and sent some managers from Taiwan, especially for matters of financial control." As they have had some past failures when hiring local managers to run operations, the group now prefers Chinese people as operational heads. Its chairman forthrightly said: "I feel Chinese managers are more suitable in this industry, so we use those people from headquarters or overseas Taiwanese people as operations' senior managers" He continued: "It is necessary to keep central thinking, follow corporate culture, and communicate with one another." Its controller also with deep feeling said: "Sending senior managers overseas is a better way, because their operating philosophies are more close to Taiwanese managers." At the moment except for operations in Japan and Mexico, Mitac uses Chinese people as general managers or managing directors on overseas operations, but as its vice president of the Taiwanese operation said: "Japanese and Mexican operations all have problems at present, so maybe we still need to make some personnel adjustments in those areas."

As to the hierarchical organisation of managers in overseas operations, its chairman realised the management core among sales, technique, and finance is very important⁴¹. If the team is organised well, the operation will easily succeed. In the sales and marketing area, the group used more open and decentralised manner⁴², so normally they used local people as sales and marketing managers, but in other core management functions they were more conservative in organising the managerial hierarchy. In the British operation, its managing director, manufacturing manager, technical manager, and vice controller are all Chinese.⁴³ Its technical manager said: "Mitac handles the power of finance, technique, and personnel, but uses local people to handle other functions."

Except for the general manager or managing director, basically pursuing localisation is still the Mitac main objective. They are still slowly transferring some senior positions to local people, as the president of Mitac International said: "The group has a clear objective. There is no difficulty in the management."

⁴⁰ Quotation from "The Story of Mitac."

⁴¹ Quotation from the interview with the Mitac chairman.

⁴² From the interview with the vice chairman of Mitac.

⁴³ From the interviews with the managing director and the technical manager of UK company.

7.4.4 Acer

With the philosophy "human nature is essentially good" and the goal of "local touch", Acer pursues its localisation quite aggressively. In order better to manage world markets and leverage their local capacities, Acer has always placed strong emphasis on forming partnership arrangements. Its chairman said: "The partnership philosophy starts with our employees, because Acer was founded with capital from its original employees. Therefore, Acer is an employee-owned company." He continued: "So when we globalise, we also like to invite first a local management team to become shareholders in the local business."

Although the company keeps an open mind on the selection of managers, it still suffers lots of difficulties, especially recruiting people from outside. Its chairman said: "The managers recruited from outside brought some new ideas into Acer, but this challenged the traditional culture of high level managers.⁴⁴" In Acer's history, there were nearly fifty outsider VPs. The chairman continued: "We need lots of talents because of high growth, but most talents did not succeed. Yes, they helped us for a while, but in the end we still need our second generation managers whom I originally thought still immature.⁴⁵" Those managers from outside were greatly ambitious, but they did not feel strongly about Acer culture. The chairman said: "The philosophy of those outside managers is quite different from mine."

Because of cultural and other relevant factors, Acer faces a great challenge on selection of managers in overseas operations. The chairman talked about the selection for overseas operations as follows:

"I realise Chinese people are more suitable for logistics which require them to work harder to cope with complicated situations and it is not easy to delegate the responsibility to Western people, so I prefer Chinese people to take control of logistics work. Secondly, I prefer Chinese people to take control of product management, because it calls for greater contact with Taiwanese companies. For necessary communication, we need Chinese people in charge. In addition, if possible, I think for the first five years of a new operation the head should at best be a manager from headquarters, because at the beginning there are more problems to solve and it is necessary to get mutual trust with headquarters."

Its senior VP also talked about the principle of managerial selection in overseas operations: "We think it is necessary to have at least one Chinese person among the president or managing director, controller, or logistics director. If there is one Chinese person in one of those positions, there is one control point existing and less chance of

⁴⁴Quotation from "Contingent Empire", p.222.

⁴⁵Quotation from "Contingent Empire", p.223.

problems happening... Secondly, if in any area or country it is important to have a local head representative, we hope to choose a local person. If any foreign operation becomes a public company, of course, we need a local person as a president." Acer's energy comes from their managers' mutual trust, but it is difficult to operate smoothly in foreign areas through an informal and flexible framework. Its financial VP said: "The belief that 'human nature is essentially good' may not be completely suitable abroad and it may not be easy to prevent problems, so simplifying matters abroad or setting a warning system are easier approaches. Besides, we set at least one person from headquarters in the position of head, controller, or logistics director." He continued: "When the managing director of a foreign operation is already a foreigner, normally we arrange the heads of finance and logistics to be from headquarters."

As Acer's regional headquarters was set at the site of the Dutch operation, in addition to the above key managers there are other Chinese senior managers including product managers, financial managers, and MIS managers, so Chinese managers occupy about 50% of the total⁴⁶. In the other two operations as few as one or two key managers are Chinese. Each regional headquarters has the right to replace its operations' managers.

Compared to local people, managers sent from headquarters cost more, so principally they seek local people if possible. In addition to the reason of trust, they still have other reasons for sending senior managers from Taiwan. The first reason is that it is not easy to attract excellent talents for local operations, as its auditing director described: "The most difficult thing in the globalising process is the problem of 'people.' Because we Chinese have only a short history in each country of operation, we have no good terms to attract the more talented people to us. However, as the terms become better and better, we are finding it easier to attract some excellent people." The second reason is for communicating purposes, as its senior VP said: "Because people sent from headquarters understand more about the group background and management style, it is easier to communicate with domestic managers than local people." Under the "fast food" manufacturing model, communication and speed are especially important factors for business. The final reason is the characteristic of the PC industry. As the product life cycle is very short, the PC industry changes so fast. Managers need to work hard and focus on business fluctuation all the time. Compared to European people who enjoy more time with their family, Taiwanese people readily accept working for a longer time and working hard.

Leaving aside Dutch headquarters, basically Acer's localised policy is still successful in Europe. Under the "fast food" manufacturing structure, However, it will be difficult to localise totally in the next two years. Although they had lots of failed

⁴⁶From the interview with the president of European headquarters.

cases when trying to hire local people as senior managers, they still have successful cases, as in the French and German operations at present. Their heads are all local people and they still give good performance. The second managing director of the German operation felt optimistic enough to say: "They have as high expectation of themselves and their work attitudes as the Taiwanese managers, so I think we still have a good opportunity to localise totally. In the future it is possible that a local person will become the president of European headquarters."

7.4.5 Managers' Selection among Case Firms

From the above analyses, the patterns of selection of managers in case firms have already appeared. As Tatung keeps its "ethnocentric" strategic predisposition between its headquarters and foreign subsidiaries, sending managers to foreign operations becomes a general policy. Except for the factor of performance, seniority and loyalty are the main considerations in the selection of managers. Senior Chinese managers keep most important positions in its European operation. Lite-On maintains its strategic predisposition as "national responsiveness" between headquarters and foreign operations. Performance and ability are the main considerations in the selection of managers and quick localisation in the foreign operations is its policy. At present, its managers in the European operation are all local people. As to Mitac and Acer, they are midway. However, Mitac maintains a mixed strategic predisposition of "ethnocentrism" and "geocentrism" between its headquarters and foreign operations. The factor of loyalty is still an important consideration in the selection of managers. Many positions at high level and financial personnel in the European operation are sent from its headquarters. Acer keeps a mixed strategic predisposition of "geocentrism" and "regiocentrism" between its headquarters and foreign subsidiaries. Except for special situations, its European regional headquarters has a great power to decide country heads and their core managers, and each country head can select other managers in his operation. Except for putting the factors of performance and ability into the selection of managers, they emphasise mutual trust to pursue their common objectives. Chinese managers occupy the highest position in its European regional headquarters, but only a few core managers are arranged in each of Acer's European operations. Overall, the sequence of spectrum of the extent of in-group of managers' selection in this research is Tatung, Mitac, Acer, and Lite-On.

7.4.6 Proposition and Discussion

The proposition 2-3 could not be accepted by this research. Mitac, and especially Tatung, were more in-group oriented, but the policy of Acer and especially Lite-On cannot support the proposition. In Taiwanese operations, the shadow of in-group culture existed more or less in all the case firms, but from an integrated view the situation has greatly changed. The concepts of professional management and localisation are gradually maturing in Taiwanese multinational corporations. Among the research cases, despite Lite-On's believing only local people know how to use local infrastructure, Acer is using the local touch approach, Mitac is designing a business focus framework, and Tatung is gradually localising its branches. Professional managers seem to be getting more important in the future of these multinational corporations.

The results showed that the relationship between national culture and the factor of the selection of managers is not strong. Many reasons could explain the results of this factor on the degree of control (see section 7.2.6), including the shortage of Hofstede's cultural dimensions, patterning effect, special firm's historical background, and managers' knowledge and adaptability. However, in Tatung and Mitac, as in prior studies (such as Quinn et al., 1988; Whitley, 1992) the proposition was still supported. With the development of human resources management (HRM) and professional managers, however, some case firms will soon reject the policy of selecting managers from in-group.

7.5 Propositions and Conclusions

Proposition 2: National culture has a significant effect on the main leaders' financial control factors of Taiwanese corporation headquarters, including degree of control, budget evaluative style and manager's selection.

Conclusion: Three sub-propositions have been assessed above and, in overall terms, the proposition could not be completely accepted by the research. From the above analysis, differences existed among the case firms. Tatung was significantly affected by leaders' financial control factors and could be called a "tight control style"; but Lite-On and Acer were little affected by leaders' financial control factors and could be classified as a "flexible control style." Mitac was in the middle and belonged to an "intermediate control style." Each firm owns its different managerial values based on different philosophies and backgrounds. Some firms may be consistent with national culture on individual points, but no consistent phenomenon could be found in

the study. Because the cases contained in the research all belong to multinational groups, they more or less learned professional management techniques and concepts of multinational management from advanced foreign multinational companies. So it is natural that national culture is gradually losing its importance to leaders' financial control factors.

7.6 Summary

Leaders' financial control factors have been discussed above and three different control patterns in leadership factors were found in the case firms. Tatung adopted a "tight control style" in financial control, Lite-On and Acer were practicing a more "flexible control style", and Mitac was following an "intermediate control style."

Tatung showed a high degree of control, budget emphasis, and in-group orientation in the selection of managers. On the contrary, Lite-On and Acer showed a low degree of control, budget emphasis, and in-group orientation in managerial selection. Mitac seems to be in the middle. In addition, the proposition of the relationship between national culture and leadership factors could not be accepted by the research. Financial control factors represent strong managerial values based on operating philosophies which exist in the case firms.

In the next chapter, the research will probe the dynamic relationship between financial control factors and the transference of MCSs.

8. Financial Control Styles and the Uniformity of MCSs

- 8.1 Introduction
 - 8.2 Financial Control styles and the Uniformity of MCSs
 - 8.3 The Degree of Control and the Uniformity of MCSs
 - 8.4 Budget Emphasis and the Uniformity of MCSs
 - 8.5 The Selection of Managers and the Uniformity of MCSs
 - 8.6 Summary
-

8.1 Introduction

In the last chapter, three financial control factors were discussed and the extent of their impact among the case firms was identified. In addition, the propositions concerning the national culture of headquarters and control factors were assessed. The results showed that the managerial values derived from financial control factors were not strongly affected by national cultural values at headquarters. This chapter, based on the results of the last two, will continue to examine the propositions concerning financial control styles and the uniformity of MCSs. Further, this study will explore the relationship between each factor and the components of MCSs.

8.2 Financial Control Styles and the Uniformity of MCSs

Proposition 3: Financial control factors including degree of control, budget emphasis and selection of managers have a significant impact on the components of management control system.

Based on an evaluation of three financial control factors, including the degree of control, budget emphasis, and selection of managers, different financial control styles in the case firms have been assessed. This proposition will examine the relationship between financial control styles and the uniformity of MCSs in the case firms.

8.2.1 Financial Control and MCSs

As seen in the last chapter, the impact of financial control factors resulted in three groups: Tatung was classified as having a "tight control style," Mitac belonged

to an "intermediate control style," and Acer and Lite-On were identified as consistent with the "flexible control style."

As shown by the qualitative analysis in chapter 6, apart from the rewarding process, the extent of similarities of MCSs between the Taiwanese operation and European operation within a firm follows almost the same pattern as the impact of financial control factors among the three groups. Tatung had strongly similar MCSs between its Taiwanese operation and European operation. Mitac kept some items similar. As for Lite-On and Acer, more items showed obvious differences. It would seem that, except for the rewarding process, the financial control style had a strong relationship with the uniformity of MCSs. Tatung with the style of "tight financial control" had highly similar MCSs between its Taiwanese and European operations; Lite-On and Acer with the style of "flexible financial control" showed obviously different MCSs between their Taiwanese and European operations; and Mitac was in the middle.

8.2.2 Conclusion and Discussion

Conclusion

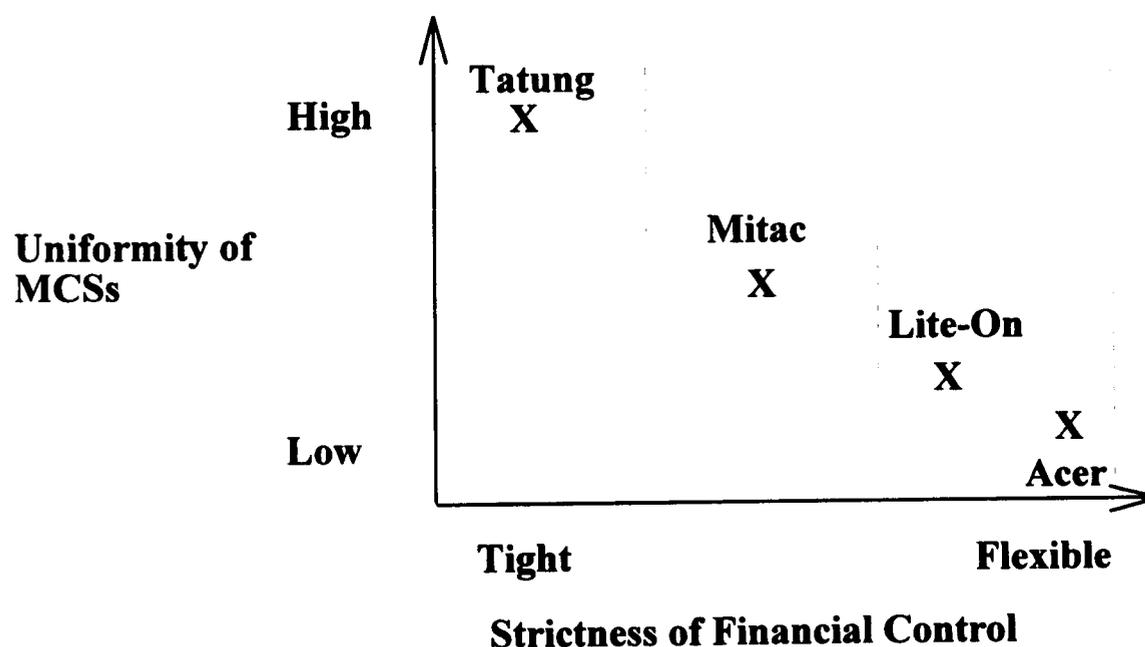


Figure 8.1 Financial Control Styles among Case Firms

With regard to the themes of uniformity of MCSs and style of financial control, different patterns are evident among the case firms (see Figure 8.1). Financial control factors strongly impact on the components of the management control system. The tighter the financial control, the more uniformity of MCSs between the

operations; the more flexible the financial control, the less uniformity of MCSs between the operations. Except for the rewarding components, this proposition could be supported by the interview field data; that is, financial control factors including degree of control, budget emphasis, and managers' selection had a significant impact on the management control system.

Discussion

Although lacking direct prior studies for comparison, the research results could still provide some reasonable explanations. First, a firm's leader is a key to a firm's control style (Dermer and Lucas, 1986; Stacey, 1990; Nahavandi & Malekzadeh, 1993; Nohria & Ghoshal, 1994). A leader's education and experience (Merchant et al., 1995) significantly influence control style. Secondly, the financial control style has a deep relationship with corporate strategy. Many researchers (such as Govindarajan & Gupta, 1985; Snodgrass & Grant, 1986; Govindarajan, 1988; Govindarajan & Fisher, 1990, Daniel & Reitsperger, 1991) have found a strong linkage between strategy and the control system. Different financial control styles in a multinational firm will appear under different corporate strategies (Chakravarthy & Perlmutter, 1985; Goold & Campbell, 1987; Stacey, 1990). Thirdly, as described in the last chapter, many prior studies concerning individual factors, including degree of control, budget emphasis, and selection of managers, have established the relationships of financial systems with these individual factors.

Because of the different extents of impact from degree of control, budget emphasis, and managers' selection among the case firms, the research will continue to probe how each financial control factor affects the components of MCSs within each firm. Of course, some impacts from the interaction of financial control factors are not easy to break up clearly and explain, but finding some clues can still help us to understand how the transference of MCSs has occurred.

8.3 The Degree of Control and the Uniformity of MCSs

Proposition 3-1: The greater the degree of control by the headquarters' leaders, the fewer the differences of MCSs between the Taiwanese and European operations.

The degree of control by headquarters could affect the MCS of operations. The greater the degree of control, the more possibility there is of a uniform system between operations. The greater the degree of control, the more the policies and instructions will flow from headquarters with more hierarchical procedures. From the

analysis in the last chapter, the rank from high to low of the degree of control of cases is Tatung, then Mitac, and then Lite-On and Acer. Each process will be carefully examined in this section.

8.3.1 Planning Process

Generally speaking, the degree of control of headquarters had relative significantly impacts on the planning process of operations. The greater the degree of control by headquarters' leaders, the less the difference in the planning process, especially in the approach of top-town objective-setting and the participation of the management team. Tatung with its tight degree of control in finance had more detailed instructions, bureaucratic procedures, and interference from the centre in objective setting, and more formal discussions but fewer managers' negotiations between line levels and managers' involvement in strategies and visions in participation. Lite-On and Acer with their flexible control in finance had fewer detailed instructions, bureaucratic procedures, and interferences from the centre in objective setting, and less formal discussions but more negotiations and involvement from their managers. Mitac stayed in the middle. As to the component of long-term and short-term planning, it seemed to be easily influenced by strategic management styles. Owing to a sharper focus on financial control, Tatung and Mitac emphasised short-term planning more than did Lite-On and Acer. Each case firm will be further discussed as follows.

8.3.1.1 Tatung

In Tatung, significant decisions, especially concerning investment and changes in policy, must be presented to its chairman for approval.¹ Before budgeting, headquarters first sets the total objective and then each operation prepares a rough budget for the combined objective purpose, to see whether the total objective can be achieved.² Almost standardised procedures were regulated by its budget manual. In addition, a formal budget committee could be found in both Taiwanese Tatung and British Tatung. With a very strict financial control, annual budget was strongly emphasised by both operations and the long-term planning lacked real feedback. A great number of formal discussions were held at weekly and monthly operating meetings in which significant matters were discussed by their managers. When operations had finished their budgets, the chairman normally would increase the operations' targets.³ Although the Taiwanese operation had a participating team to set

¹From the interview with the deputy chairman of auditing committee of Tatung Company.

²From the interview with chief accounting of Taiwanese operation of Tatung Company.

³From the interview with the director of Taiwanese operation of Tatung Company.

the objective according to the total corporation objective, its head had a great impact and the final target was ultimately controlled by the chairman. The process of top-down on objective-setting was very obvious. Following Taiwan's Tatung procedures, the British president, like the chairman in Taiwan, held great powers of decision. Before budgeting, the president discussed the company objective containing the policies and strategies with two managing directors.⁴ Initially the objective used a top down approach and then each unit built up their budgets.⁵

Overall, with the impact of Tatung's tight control, both operations focused on short-term planning and used very similar top-down objective-setting and team work for planning and budgeting, but owing to its smaller scale the British operation had slightly stronger top down objective-setting and smaller team work for budgeting.

8.3.1.2 Mitac

"Mitac group is slowly stepping towards decentralisation from centralisation."⁶ As well as the headquarters, they set up three sub-headquarters to handle different affiliated companies. Although below the level of sub-headquarters they cultivated many professional managers, basically the headquarters and three sub-headquarters still played important roles within the whole group. They retained a greater degree of decentralisation in marketing and still remain relatively conservative in finance.⁷ They designed a "BEPaid" report with financial strategic factors for monitoring overseas operations and amalgamated the key important reports⁸, and it is their hope to manage their operations through statements or reports.⁹ With a tight financial control, annual budget objectives were emphasised by the Taiwanese and British operations, and both operations were not over-concerned with long-term planning. They emphasised discipline, set certain rules to be followed¹⁰, developed a network organisation protocol language to encourage their people to use E-mail and MIS systems to keep freedom of information.¹¹ The matrix system in the British operation is quite obvious.¹²

On objective setting, in the Taiwanese operation top management would set some important targets including profit, turnover, and R&D according to previous years records.¹³ Then each department head would attend the meeting for discussing

⁴From the interview with the executive director of Tatung (U.K.) Company.

⁵From the interview with the operating manager of Tatung (U.K.) Company.

⁶Quotation from the interviews with the chairman and the vice chairman of Mitac group.

⁷Quotation from the interview with the vice chairman of Mitac group.

⁸Quotation from the interview with the chairman of Mitac group.

⁹Quotation from the interview with the president of Mitac International.

¹⁰Quotation from the interview with the chairman of Mitac group.

¹¹From the interview with the chairman of Mitac group.

¹²From the interview with the managing director of Mitac Europe Ltd.

¹³Quotation from the interview of the controller Mitac International.

the annual business plan including significant strategies and developing directions. So basically its objective setting was still a top-down approach, but more managers participated in the budgeting. In the British operation, except for a sales budget Mitac did not prepare a segment budget but a company-wide budget.¹⁴ Only a few key managers participated in the budgeting, especially the controller, sales manager, and logistics manager. Its managing director played an important role in objective setting and negotiated a budget target with headquarters. If headquarters did not agree to the budget target, then the operation would adjust the financial target until top management at headquarters agreed with it.¹⁵ Its controller described the situation: "When we set the budget objective, headquarters always determines our objective... Our objective setting is a top-down approach." The British operation used an obvious top-down approach in objective setting and only a few key people participated.

Overall, with the impact of conservation of financial control, a top-down approach in objective setting was found in both Taiwanese and British operations, but owing to the obvious differences in scale and business focus, the two operations had different levels of participation in the planning process. In addition, both operations focused on short-term planning only.

8.3.1.3 Lite-On

Generally speaking, Lite-On is a very diversified group. Headquarters plays a weak role but its leaders can affect policies and directions of subordinate corporations through each board of directors. "Each corporation has a professional management team to run its business, and each manager according to his management level has different powers and responsibility."¹⁶

In Taiwan, the budget was divided and prepared by SBUs and each SBU manager had his own powers and responsibility. He could significantly affect personnel and financial affairs.¹⁷ Before developing three-year strategic planning, top management would set some clear basic goals.¹⁸ Each SBU manager had to have ability to present his plan and all senior managers had to take part in the discussion. The strategic planning was reviewed every half year and the annual budget was prepared on the basis of strategic planning. The basic goal came from top management, but the budgeting was from the bottom. Then they would find and adjust the balancing point.¹⁹ In the British operation, as it was directly subordinated under the president of Taiwan Lite-On, its managing director enjoyed more

¹⁴From the interview with the controller of Mitac Europe Ltd.

¹⁵Quotation from the interview with the assistant controller of Mitac Europe Ltd.

¹⁶Quotation from the interview with the controller of Taiwan Liton.

¹⁷Quotation from the interview with the planning director of Taiwan Liton.

¹⁸Quotation from the interview with the deputy of controller of Taiwan Liton.

¹⁹Quotation from the interview with the planning director of Taiwan Liton.

decentralisation.²⁰ They used the bottom up approach for strategic planning and budgeting, and they focused on annual budget more than on strategic planning. "The budgeting is put together by department managers and each is asked the needs."²¹ Compared to the Taiwanese operation, its planning process appeared to involve fewer bureaucratic procedures and to remain more flexible. The managing director, executive director, and controller were the main roles in determining the company objective. Normally the budget when presented to the Taiwanese president to be reviewed showed only a small change.²² Other managers just participated in the meeting, not in the budgeting, and most of the budget was prepared by the controller.

Overall, with the impact of the philosophy of national responsiveness, the Taiwanese and British operations had developed their different styles in objective setting and participation. In objective setting, the Taiwanese operation kept a balance between a top-down approach and bottom-up approach and British operations used a more bottom-up approach. In planning participation, the two operations had some differences in formality but also showed some similarity in managers' negotiations and involvements. As to the long-term and short-term planning, long-term strategic planning was used in the Taiwanese and British operations, but because the British operation was still in the survival stage, it still focused more on short-term planning.

8.3.1.4 Acer

Because many subsidiaries or branches owned less than 50% of group shares, they were often managed through their board of directors. "The framework focuses on controlling policies and operating directions not on directly managing their systems."²³ "Each company's managers were required to respond to their board of directors, not to headquarters. There was not even the term 'headquarters' of the whole group to them."²⁴ "Under the client-server system, each operation has enough room to develop."²⁵ In overseas operations, each RBU has its own headquarters to monitor its operations; for example, headquarters of European RBU takes charge of all European operations.

On objective setting, Acer asked their operations to prepare dual objectives, for both financial and management purposes. Normally they formed their consensus on whole objectives in their so-called "summit meeting" which each operation

²⁰Quotation from the interview with the controller of Taiwan Liton.

²¹Quotation from the interview with the managing director of Lite-On Limited (UK).

²²Quotation from the interview with the managing director of Lite-On Limited (UK).

²³Quotation from the interview with the senior vice president of Acer Inc.

²⁴Quotation from the interview with the senior vice president of Acer Inc.

²⁵From the interview with the chairman of Acer group.

manager had to attend every half year. Then the group's headquarters decided some critical figures and delivered down, especially the extent of the growth rate.²⁶

The top-down objective setting and full participation were very obvious in the Taiwanese operation. Based on long-term visions, top management drafted a plan guide containing objectives, mission, and strategy and delivered it to the operating meeting for discussion before budgeting. Each departmental head had to take part in the meeting and the content might be revised there. Following the discussion, each department started to prepare its annual budget. In Europe, as well as attending the summit meeting held by the whole group, each country head was also required to attend the quarterly meeting held by European headquarters for discussing important decisions and strategies, and forming an objective consensus. In the European area, a different extent of participation and top down objective setting existed in different operations. The German operation used more top down objective setting and only key managers participated in the setting; in the Dutch operation, top managers set the target and then sought negotiation with the relevant units in budgeting; and in the British operation, they got consensus in the strategic meeting and then top management gave instructions about the target before budgeting. Three European operations used different extents of a top down approach in objective setting, and European headquarters in which all senior managers are Chinese people significantly affected the process of objective setting of its European operations. Basically, each operation set its objective depending on the objectives of the group and of European headquarters.²⁷

Overall, with the philosophy of separate management and loose financial control from the centre, Acer formed its common consensus of long-term visions and clear missions through discussions with its operations' managers. Each operation more or less used a top down method to deliver its objectives based on the common consensus. However, each operation's head had the right to decide the approach of objective setting and the way of participation by himself. As described in the above, the Taiwanese and British operations showed obviously different ways of objective setting and participation in planning process. As to long-term and short-term planning, both operations pursued their long-term visions together, but with a market focus, annual budget targets were still carefully watched by them, especially for the European operations.

²⁶From the interview with the logistics director of Acer UK Company.

²⁷From the interview with the managing director of Acer UK Company.

8.3.2 Organising Process

The degree of control by headquarters could significantly affect its operations' organising process. European operations could copy their decentralisation and formality from headquarters. Generally speaking, the greater the degree of control by headquarters, the less the decentralisation in their operations. Further, the greater the degree of control by headquarters, the more the formality in their operations. Tatung with its tight control style had more financial controls from the centre and less independence in decision-making at the operational level; Acer and Lite-On held the opposite position; and Mitac kept its position midway. On formality, Tatung had more formal documents, rules and procedures, Lite-On and Acer kept their systems more flexible, and Mitac also stayed in the middle. Each case firm will be discussed further in detail as follows.

8.3.2.1 Tatung

From the viewpoint of the organising process, the Tatung UK company was like a miniature version of Tatung's Taiwan Corporation. Both operations had strong financial and personnel controls, formal and periodic operating meetings, detailed operating manual and documents, formal rules and procedures, a clearly decentralised decision system for routine activities, and formal budgeting process. Objectively speaking, both Taiwanese and British operations were more or less centralised and quite formal.

8.3.2.2 Mitac

Compared to Tatung, Mitac had a moderate degree of control by its headquarters. They controlled overseas operations through the "BEPaid" report system and for daily communication they used the transparent information system and E-mail system.

Its Taiwanese operation used a clearly decentralised decision making system and each department followed the decentralised rule to make decisions independently. Although it was more centralised in finance, in other fields it had some degree of decentralisation. On formality, they followed the regulations of ISO #9001 and kept a basic formal operating manual and documents, maintained a formal budget process, and followed financial rule and procedures, but they still kept relative flexibility for their managers. When facing a special situation, they discussed it together to find a temporary and special procedure.²⁸

²⁸Quotation from the interview with the associate vice president in quality of Mitac International.

In the British operation, the factor of the degree of control by headquarters' leaders seemed less to affect its organising process. Although it still followed some basic rules, regulations, and uniform reports and protocol communication language set by headquarters, it was obviously less decentralised and formal than the Taiwanese operation. Apart from the demand for market-orientation, there are two main reasons. First, the scale of the British operation is obviously smaller than the Taiwanese operation. "The managing director has handled it since the beginning of the company, so he knows each function very well.²⁹" So, only a few important regulations were kept in written form. Its managing director used weekly meetings to make team decisions and ensure cooperation. Secondly, its managing director, logistics director, and technical manager all came from the Tatung UK company which has a different corporate culture from Mitac. Basically they still kept a more centralised style and most decisions still called for consultation with the managing director. However, compared to Tatung, they are more flexible and informal.³⁰

8.3.2.3 Lite-On

Lite-On used a professional management framework and kept less degree of control by headquarters' leaders within the group. Its operational managers essentially enjoyed a relative decentralisation. In the Taiwanese operation there was a clearly decentralised decision-making system and each SBU manager could make decisions independently. In the British operation its top management encouraged its managers to make decisions independently, but owing to the historical background, their managers still did not like to make decisions independently. As to formality, obviously, the Taiwanese operation was more formal than the British. The Taiwanese operation kept more written rules and documents and maintained them more constantly. Obviously, its British operation could organise its own procedures with almost no interference from headquarters.

8.3.2.4 Acer

Under the framework of the client-server system, Acer had less degree of control by headquarters and each operation was given enough space for development. Its chairman said: "We have a basic system framework, but we do not regulate in detail. I ask operations' managers to follow the fluctuating local situation to change their approach flexibly." Decentralisation and flexibility seem to be the special characteristics of the Acer group.

²⁹Quotation from the interview with the managing director of Mitac Europe Limited.

³⁰Quotation from the interview with the managing director of Mitac Europe Limited.

In the Taiwanese operation, each level of management was fully decentralised in decision making, but had to bear the full responsibility of success or failure. Formality in documents and procedures was lacking and the final result was the main focus. The Taiwanese operation still maintained more formality than its overseas operations.

In the European area, the heads of the Dutch and British operations were more decentralised, but the head of the German operation kept a more conservative decentralisation. Different management styles of operational heads caused significant variances in decentralisation. As its chairman said: "The only way we can operate is to give them a basic system framework and some knowledge of business sense." Generally speaking, different operations had obviously different extents of decentralisation. As to the formality, they strongly lacked written regulations and documents, and their managers were still "to follow the changing of local situations to change their approaches flexibly."

8.3.3 Evaluating Process

The degree of control by headquarters' leaders could sometimes affect the evaluating process. Those companies which had a greater degree of control by headquarters managers were more strict on their controllability-filters. Tatung gave little consideration to controllability-filters and managers' explanations, with Mitac, Acer and Lite-On giving progressively more attention to this component. In addition, the greater the degree of control the companies had, the more strict were they in financial control, procedural control, and directives given at meetings. This resulted in shorter frequency and deeper feedback. The sequence of information detail and the extent of feedback from high to low is Tatung, Mitac, and Lite-On and Acer. Each case firm will be discussed further in detail as follows.

8.3.3.1 Tatung

On controllability-filters, in both Taiwanese and British operations, although all unit heads had opportunities to explain uncontrollable items, it was very difficult for them to revise their targets. Their top management gave little consideration to the effect of uncontrollable operating factors. As to the feedback extent and frequency, both operations did emphasise strict control. They used standard costing to control their capacity, efficiency, overheads, and expenses, and they emphasised procedure control through monitoring capital expenditure, approving a discretionary programme, and discussing performance variances in a series of meetings. In addition, the chairman of Tatung group and the president of the British operation preferred to give

some directives at meetings such as conclusions, suggestions, or future operating strategies and directions.

8.3.3.2 Mitac

Controllability-filters were not inspected in its control system, but both operations' managers had opportunities to explain uncontrollable items and under some special conditions top management could still accept their explanations. As to the feedback extent and frequency, two operations have similar feedback frequency and uniform main reports³¹, but owing to different scales between the two operations there were obvious differences on the extent of feedback. The Taiwanese operation had a deeper extent of feedback than the British operation. The budget was controlled by the product line and department in the Taiwanese operation, but the British operation lacked segmental budget reports and put more emphasis on procedure controls and more directives given by the managing director at meetings.

8.3.3.3 Lite-On

Compared to Tatung and Mitac, Lite-On had less control in its management. In both Taiwanese and British operations, if there were good reasons they could accept uncontrollable items, but the Taiwanese operation took them more formally and systematically and defined most of them in its strategic planning. Conversely, the British operation showed slack control. On feedback extent and frequency, owing to the factor of cultural background, some practical differences existed between the two operations. Both operations were not too strict in the responsibility feedback, but on the management information system and feedback frequency the Taiwanese operation did absolutely better than the British operation.

8.3.3.4 Acer

Acer used the dis-integrated model and split its business into many small autonomous operations. Each operation could make its decisions independently and top management could fully exploit the management by asking each operation to achieve its objective. The headquarters cared only about whether their operations' managers achieved their targets in the budget feedback. Whether the managers were committed to and guaranteed their budget targets was very important. Top management did not care too much about detailed feedback and the extent of feedback within different operations.

On controllability-filters, both Taiwanese and European operations showed only small differences but the Taiwanese operation gave a little consideration to

³¹ From the interview with the chairman of Mitac group.

uncontrollable items. Basically, all operations did not consider uncontrollable items too much. "The corporation would like to let an operation's manager bear the full responsibility for success and failure."³² On feedback extent and frequency, they lacked uniformity. With different styles of operation, each operation had its own feedback approach. Altogether, the Taiwanese and British operations had more and deeper feedback than the Dutch and German operations.

8.3.4 Rewarding Process

There was no obvious relationship between the degree of control by headquarters' leaders and the reward system. With the Chinese philosophy of "when in Rome do as the Romans do", Taiwanese firms respect the compensation structures and styles of overseas operations. With the varying degree of control by headquarters' leaders, sometimes it was still possible that there were some different effects in the European operations' reward system, but basically a very weak relationship between the reward system and the degree of control by headquarters was found in the research. The case firms will be discussed in more detail as follows.

8.3.4.1 Tatung

A strongly different reward system existed between the Taiwanese and British operations. The British operation made a little change in its payment and benefit system, and basically headquarters respected its original compensation system. Even so, some employees' benefits are like those of the Taiwan Tatung Company.

8.3.4.2 Mitac

The managing director of its British operation followed the model of the Tatung UK company. No direct relationship between the degree of control by headquarters' leaders and the rewarding system of the British operation was found in this study.

8.3.4.3 Lite-On

The managing director of its British operation had independent powers of rewarding. No direct relationship between the degree of control by headquarters' leaders and the rewarding system was found in this study.

³²Quotation from the interview with the plant director of Acer Global Inc.

8.3.4.4 Acer

Under the client-server structure, its European RBU, even each individual country operation under the RBU, owned absolute power to determine its rewarding system. Little relationship between the degree of control by headquarters' leaders and the rewarding system was found in the research.

8.3.5 Summary and Discussion

Summary

Except for the rewarding process, basically the degree of control by headquarters' leaders and the transference of MCSs of overseas operations was a positive relation. The stronger the degree of control by headquarters' leaders, the greater the impact on the transference of MCSs. That means the greater degree of control by the headquarters' leaders, the fewer the differences between Taiwanese and European operations.

In overall terms, the proposition 3-1 was broadly supported by this research. Except for the rewarding process, other processes were broadly affected by the degree of control by headquarters. This proposition was supported by most of the components of the MCSs. However, some situational factors found in the research also essentially impacted on the European operations, especially on Mitac's European operation. These situational factors will be discussed further in the next chapter.

Discussion

The results showed a reasonably logical relationship between control style and MCS design. The beliefs and philosophy of the central figure of the organisation are the principal determinant of control style (Stacey, 1990). Degree of control concerns a basis of power (Pettigrew, 1973). Different control styles could influence MCS design. Though lacking literature for direct comparison with these results, compared to the studies of Chakravarthy & Perlmutter (1985), Goold & Campbell (1987), and Stacey (1990), the research results showed a close consistency with prior research. A strong link between strategy, financial control style, and MCSs could be demonstrated. The factor of degree of control did appear to influence the uniformity of MCSs in case firms.

8.4 Budget Emphasis and the Uniformity of MCSs

Proposition 3-2: The greater the budget emphasis by the headquarters' leaders, the fewer the differences of MCSs between Taiwanese and European operations.

Budget emphasis could influence the uniformity of management control systems. Those companies putting more emphasis on the budget may have a more uniform system between their domestic operations and overseas operations than do those companies which put less emphasis on the budget. All the case firms owned basic budget functions, but they differed in extent. From the above chapter analysis, the sequence of budget emphasis is Tatung, then Mitac, and then Acer and Lite-On. Tatung's headquarters' leaders emphasised budget planning and controlling most strongly. There were some obvious procedures during the budget planning and controlling process. Mitac's headquarters' leaders regarded the budget as a controlling instrument.³³ They used the "BEPaid" report system to check the budget control, as its chairman said: "If an operation cannot attain the budget objective, then all 'BEPaid' problems will happen." Compared to Tatung, however, it placed only moderate emphasis on the budget. Lite-On and Acer used budget as an instrument of objective management and objective setting, and they lacked real budget control, focusing more on the bottom line. Lite-On emphasised planning, but not the controlling function. Under the harmony philosophy, it lacked competitive spirit within the corporation and focused more on the objective of whole company profit. Acer's slogan, "Budget is not Bible", reflected its high level managers' operating philosophy. They just used objective management to motivate their managers.

8. 4. 1 Planning Process

Budget emphasis bore a close relation to the uniformity of the planning process. On objective setting and participation, the greater the emphasis on the budget the stronger the similarity in budget setting and procedures, and the balance between long-term and short-term planning still was easily affected by the extent of budget emphasis. On the variables of objective setting and participation, Tatung with a tight control style had characteristics of standard budget procedures and detailed financial objectives in objective setting, and more formal participation through segment budgets and hierarchical review. Acer with a flexible control style was on the opposite side. However, owing to different emphases on budget functions, although Mitac and Lite-On displayed differences in budget emphasis, they were very close in objective setting and participation. As to the variable of long-term and short-term planning, Acer and Lite-On focused more on visions or strategies, but Tatung and Mitac placed more emphasis on the annual budget. Each case firm will be discussed further in detail as follows.

³³From the interview with the chairman of Mitac group.

8.4.1.1 Tatung

Tatung emphasised the budget very much. As its deputy controller said: "We have a powerful budget system." Sometimes their budget control was even more strict than that of government institutions.³⁴ On the objective setting, a nearly standardised process was employed and a period of more than three months for budgeting was evident in both Taiwanese and British operations. On participation, both operations were quite similar. The budgets were prepared by department and product line in each operation, and each department was required to participate in the budgeting. Each departmental head communicated with the others in a series of budget meetings. As well as the annual budget, both operations have seven or five years' long-term planning, containing significant investment and critical operating figures. The annual budget was emphasised more by both Taiwanese and British operations. Objectively speaking, the attitude of budget emphasis of headquarters' leaders significantly affected its Taiwanese and British operations.

8.4.1.2 Mitac

The Mitac chairman regarded the budget as an important management instrument. Their rate of attaining the budget objective occupied nearly two-thirds of the weight when the performance of operations' heads was appraised.³⁵ Its chairman said: "Managers who could not attain their budget objectives were even fired."

On objective setting, they had many budget meetings discussing some significant strategies and developing directions before preparing departmental budget.³⁶ The chairman said: "Strategies will change the integrated budget structure." They held board of directors' meetings and operating meetings of the whole group at the same time each half year to discuss the budget objectives and how to achieve them.³⁷ Although top management will set some important targets before budgeting, almost all senior managers including departmental heads more or less participate in the objective setting in these meetings, but in the British operation, some financial goals were significantly affected by headquarters.³⁸ Then a few senior managers as a management team discussed the budget objective and some significant strategies and directions, and then communicated them down through the company. The spirit of budget emphasis seems only to have involved a few critical managers.

In Taiwan, the budget was prepared by product line and department. Each department had to participate in the budgeting and each departmental head had to

³⁴Quotation from the interview with the deputy controller of Tatung Company.

³⁵From the interview with the vice chairman of Mitac group.

³⁶From the interview with the controller of Mitac international.

³⁷From the interview with the chairman of Mitac group.

³⁸Quotation from the interview with the logistics director of Mitac Europe Limited.

attend a series of budget meetings. In the British operation, except that the sales budget was prepared by the marketing department, almost the whole budget was completed by the financial department.³⁹ They expended a little time discussing the budgeting, but they used the open mail system fully, weekly managers meetings, and face-to-face talking and discussion as communication channels.⁴⁰

As to the long-term and short-term planning, the group did not care about long-term planning too much. Although the Taiwanese operation had a long-term plan, it only contained some rough important indicators prepared by the financial department. No department had any firm long-term or middle range plan⁴¹; that means they only had some abstract long-term missions and visions and lacked any detailed plan or steps.⁴² In the British operation, although its five year plan also covered capital expenditure, capital increment, and rough goals⁴³, it lacked formality and seemed only for top management reference. Its long-term plan lacked the consideration of policies and strategies⁴⁴, as its assistant controller described: "Long-term forecasting is nonsense!" Generally speaking, both operations emphasised short-term planning and did not care too much about the long-term plan.

8.4.1.3 Lite-On

Lite-On leaders strongly emphasised the planning process. Under the professional management framework, each level of managers could have relative input. In objective setting, there was clearly a two-stage process: strategic planning and annual budget. They linked strategic planning and the annual budget better than other groups. Although, before planning, top management set some basic goals, they used team participation to set objectives. Each SBU needed to present its proposal and they spent a long time in budgeting. Participation was very good in the Taiwanese operation, as each different level of manager and department had to join in the discussions. Each manager's opinion could be relatively respected by his supervisor. Long-term planning was emphasised more than in other case firms. They used "SWOT" technology to assist their three years strategic planning, and they reviewed the strategic planning each half year. Once they finished their strategic planning, the annual budget was prepared exactly as planned.⁴⁵

The British operation seemed not to have learned from the Taiwanese operation. It used a more bottom up approach for budgeting and only key managers

³⁹From the interview with the assist controller of Mitac Europe Limited.

⁴⁰From the interview with the logistics director of Mitac Europe Limited.

⁴¹Quotation from the interview with the AVP of quality management of Mitac International.

⁴²Quotation from the interview with the AVP of material management of Mitac International.

⁴³From the interview with the logistics director of Mitac Europe Limited.

⁴⁴Quotation from the interview with the controller of Mitac Europe Limited.

⁴⁵From the interview with the planning director of Taiwan Liton.

participated in setting objectives, to a small extent, and these lacked participation in the segment budgets prepared by each department or product line. Its top management encouraged more communication on co-operating but not on budgeting. As to long-term and short-term planning, it tried to learn the way of the Taiwanese operation. They prepared both a long-term plan and annual budget as in Taiwanese operations, but they still focused more on annual budget than did the Taiwanese operation. The linkage between long-term planning and short-term planning still could not compare with Taiwanese operations.

8.4.1.4 Acer

Acer's top managers did not emphasise the budget too much.⁴⁶ They encouraged their managers to pursue their targets instead of controlling their budget in detail. They asked their operations' heads to understand fully their business model, the basic operating structure of the financial statements, and not to spend too much time in budgeting.⁴⁷ Their senior managers at headquarters focused on objective management instead of monitoring their operations' budget control.

On objective setting, owing to different business focuses, many differences existed between Taiwanese and European operations. The Taiwanese operation expended a longer time in budgeting of a more formal kind, but some similarities could still be found among operations: first, after each operation selected its business model, their managers could focus only on sales and the bottom line in budgeting. The German and British operations did not even have a detailed segment budget. Secondly, they did not expend too much time in budgeting, especially European operations. Thirdly, they prepared likely and most likely dual objectives for financial and management purposes.

The Taiwanese operation obviously had broader and deeper participation than European operations. In the European area, each operation with a marketing-orientation had its different extent of participation depending on its leadership style. Because European headquarters was set in the Dutch operation and more budgeting practices were learned from Taiwanese operations, the Dutch operation had more participation than the German and British operations.

As to short-term and long-term planning, Acer smartly and successfully used some simple slogans representing their long-term visions, such as "2000 in 2000, 21 in 21"...etc., as their common objectives. The Taiwanese operation followed Acer's long-term visions and kept clear missions for its long-term and short-term goals. However, owing to uncertain situational factors and leaders' philosophy, each

⁴⁶From the interview with the chairman of Acer group.

⁴⁷From the interview with the senior VP of Acer Inc.

European operation focused only on its annual budget. Although some of them still had so-called long-term plans, they lacked real meaning. The managing director of the German operation described its internal long-term plan: "This long-term planning is nothing... it is only like a vision and also a long-term strategy."

8.4.2 Organising Process

The budget emphasis by headquarters' leaders had a rather close relationship to the organisation process. The more the budget emphasis, the more strict the financial control and the more formality in budgeting procedures. The relationships among the case firms on the components of decentralisation and formality are broadly consistent with the extent of budget emphasis. Each case will be discussed further in detail as follows.

8.4.2.1 Tatung

The budget was very important to each unit in Tatung. If there was no budget, any expenditure needed to be approved in advance. Without enough reasons, it was not easy to gain approval. "Budget control sometimes is even more strict than government."⁴⁸ Its budget represented a part of decentralisation. Its Taiwanese and British operations used strongly centralised financial control.

Budget emphasis had a close relationship with formality. Both operations emphasised formal budget procedures and written documents. Both operations had similar formal budget manuals and near standard procedures.

8.4.2.2 Mitac

Mitac always keeps its philosophy conservative, especially in financial management, and budget is its efficient means of financial management. In its Taiwanese operation, it had a clearly decentralised flow chart on financial aspects and their managers completely followed that flow chart.⁴⁹ In the British operation, owing to the smaller scale and marketing focus, the managing director followed its leaders' philosophies but he used a more strictly centralised financial control system, learning from the Tatung UK company⁵⁰, and only a little financial decentralisation.

The budget emphasis affected only weakly the formality of the British operation. Obviously, the British operation owned less formality than the Taiwanese

⁴⁸Quotation from the interview with the deputy controller of Tatung company.

⁴⁹Quotation from the interview with the controller of Mitac International.

⁵⁰From the interview with the managing director of Mitac Europe Limited.

operation. They kept more flexible and informal and only a few important regulations were kept as written documents.⁵¹

8.4.2.3 Lite-On

"From the view of financial system, the Taiwanese operation owns a very clear decentralisation.⁵²" The financial system was powerful and each unit had to follow the decentralised rules. The British operation lacked a formal decentralised system such as its Taiwanese counterpart had, but the budget figure of each overhead was their managers' decentralised responsibility, as its controller said: "If they have the budget, they can make decisions independently, so the decentralisation is very clear." However, owing to lacking a detailed segment budget, the decentralised responsibility within the operation still had serious problems. Headquarters managed the performance of the British operation only through a monthly reporting system.

Regarding formality, the two operations had obvious differences. The British operation remained at the learning stage. Although it also belonged to an ISO #9001 plant, it was still less formal than the Taiwanese operation, especially in the budgeting documents, regulations, and procedures.

8.4.2.4 Acer

Under the client-server organisation, each operation, no matter whether domestic or foreign, had relative power to make decisions independently. As to the decentralisation in different operations, it depended on the philosophy of operational heads and their different situations. The factor of budget emphasis seemed to have low impact on their decentralisation.

As to formality, except for simple guidelines, Acer strongly lacked uniform budget documents, reports, regulation, and procedures even within similar European RBUs.⁵³ In Europe, each operation easily developed its own system, but they frequently lacked formal budget documents and procedures. Overall, Acer's budget system was very "informal but flexible"⁵⁴.

8.4.3 Evaluating Process

Budget emphasis had a relatively close relationship with the evaluating process, especially in the feedback context. Generally speaking, the greater the budget

⁵¹From the interview with the managing director of Mitac Europe Limited.

⁵²Quotation from the interview with the planning director of Taiwan Liton.

⁵³From the interviews with the director of management analysis section of Acer inc., the general controller of Acer European headquarters, and the controller of Acer Computer GmbH.

⁵⁴Quotation from the interview with the senior VP of Acer Inc.

emphasis, the deeper and shorter the feedback. The attitude of budget emphasis obviously impacted the feedback extent and frequency among case firms. However, this was not so for the controllability-filters. Each case will now be discussed in further detail as follows.

8.4.3.1 Tatung

The Taiwanese and British operations had weekly and monthly operating meetings and managers had opportunities to explain uncontrollable items, but unless their reasons were very strong it was impossible to gain approval. Top managers of both operations seemed to give little consideration to the impacts of uncontrollable factors.

On feedback, Tatung fully developed its warning system to monitor its operations. They used weekly and monthly operating meetings to monitor sales and profit performance, and applied standard costing to analyse different cost variance for controlling. With their leaders fully focusing on the running of the business, both operations maintained a strong warning system.

8.4.3.2 Mitac

On controllability-filters, owing to lacking emphasis on individual items, neither of its two operations identified or inspected the uncontrollable items. As to significant uncontrollable items which significantly affect the profit target, they considered them only in special circumstances. Generally speaking, the Taiwanese operation still more clearly identified the uncontrollable items than the British operation did.

On feedback, in addition to traditional financial reports they designed a uniform "BEPAID" reporting system containing some key strategic factors to check their overseas budget performance. Monthly performance reports were their basic instruments of performance evaluation. Overall, both operations had similar feedback frequency, but the feedback extent in the Taiwanese operation was obviously wider than in the British operation.

8.4.3.3 Lite-On

The budget controlling function was not strong in Lite-On. Its Taiwanese and British operations' senior managers could all accept explanations about uncontrollable items, but the Taiwanese operation had clearly-defined segment budgets and better definition about the uncontrollable items considered in their strategic planning. Compared to the Taiwanese operation, the British operation lacked control over its segments but analysed only the uncontrollable items by a company-wide budget for

understanding the operating results. Essentially, the factor of budget emphasis from headquarters had little effect on controllability-filters.

Both operations had a monthly performance reporting system as a basic means of feedback and regular meetings, but as the British operation lacked responsibility units, its feedback extent obviously could not compare with that of Taiwanese operations.

8.4.3.4 Acer

As Acer focused on the profit objective when evaluating operational performance⁵⁵, each operation head regarded the bottom line as his mission. Almost all operations did not inspect uncontrollable items, but the extent was a little different among operations. Obviously, the budget evaluation style strongly affected its operational heads' behaviour.

On feedback extent and frequency, except for monthly performance reports Acer allowed great freedom to its operational managers. Comparatively, the British and Taiwanese operations had deeper feedback than the German and Dutch operations. The factor of budget emphasis only weakly affected operations' feedback.

8.4.4 Rewarding Process

Budget emphasis from headquarters strongly affected the rewarding system of Taiwanese operations, but had little impact on European operations. In other words, unless combining the factor of managers' selection or degree of control, budget emphasis seemed to have little relationship with the uniformity of the rewarding system in the case firms. Each case firm will be discussed in further detail as follows.

8.4.4.1 Tatung

The Taiwanese and British operations used completely different compensation systems. The Taiwanese operation used certain contingent rewards, more group incentives, and more long-term rewards, but the British operation used a pre-set reward system, more individual incentives, and more short-term rewards. The factor of budget emphasis seemed an irrelevant factor to the uniformity of the rewarding system. Each case firm is more discussed in further detail as follows.

8.4.4.2 Mitac

Each operation had a different rewarding system. The Taiwanese operation had more contingent rewards, group rewards, and long-term rewards. The British

⁵⁵From the interview with the senior VP of Acer Inc.

operation except for sales and marketing people, lacked a formal bonus system. Its salesmen's bonuses were granted more on an individual basis and despite some benefits its staff lacked long-term rewards. If the company attained its budget profit objective, its employees could enjoy a small bonus,⁵⁶ but basically the factor of budget emphasis lacked a direct relation to the transference of the rewarding system.

8.4.4.3 Lite-On

Each operation had an absolutely different rewarding system. The Taiwanese operation kept contingent rewards, emphasised group rewards, and balanced both short-term and long-term rewards; but in the British operation, they used pre-set rewards and no incentive system or long-term rewards in the past five years. The factor of budget emphasis had a very weak relation to the transference of the rewarding system.

8.4.4.4 Acer

Different compensation systems existed among different operations. The Taiwanese and European operations had obviously different systems. The Taiwanese operation had more contingent rewards, group rewards, and long-term rewards; but European operations used a pre-set salary system, more individual rewards, and focused on short-term rewards. "If they achieve their targets, they can enjoy some small performance bonus,⁵⁷ but how will depend on the operation head.⁵⁸" The factor of budget emphasis had little relation to the rewarding systems.

8.4.5 Summary and Discussion

Summary

In assessing the relationship between budget emphasis from headquarters and the uniformity of MCSs within case firms, budget emphasis had little relation to the rewarding process. Generally speaking, the greater the emphasis on the budget, the more the uniformity on other processes. In some cases such as the variables of objective setting, participation, long-term and short-term planning, decentralisation, formality, and controllability-filters, the impacting extent of budget emphasis from headquarters lacked complete consistency with the budget emphasis styles. In particular, some confusions existed between firms with intermediate emphasis and those with low emphasis. The firms with high emphasis seemed better at keeping a clear separation and being more consistent than those with a lower emphasis.

⁵⁶ From the interview with the managing director of Mitac Europe Limited.

⁵⁷ From the interview with the president of Acer European headquarters.

⁵⁸ From the interview with the president of Acer European headquarters.

As a result, proposition 3-2 could not be sufficiently supported by the research as regards the whole system or process. But some components, like the variables of long-term and short-term planning and feedback extent and frequency, were clearly supported.

Discussion

Because previous literature focused on inter-firm (such as Hopwood, 1972; Otley, 1978, Brownell, 1982; Brownell & Hirst, 1986; Simons, 1987, 1990; Dunk, 1991; Kren, 1992) or cross-border (such as Harrison, 1992, 1994) studies, direct comparison with these results seems difficult to find. Hence these results seem a little perplexing. However, many reasons can strongly support the research results. The main reason is that different functions of the budget were emphasised by different case firms, and an "indented effect" was found among the cases of Mitac, Lite-On, and Acer. However, owing to its emphasis on all budget functions, Tatung showed in its budget system a great similarity between its Taiwanese and European operations. That is why the proposition could be broadly supported between Tatung and the other three case firms. In addition, the effect of budget evaluative style seems to have a deep relationship with many contingencies, such as strategies (Simons, 1987), job-related tension (Hopwood, 1972), and budgetary participation (Brownell, 1982; Kren, 1992). Some moderators may also change the proposition expectation. And that is perhaps why some researchers (such as Hopwood, 1972 and Otley, 1978; Otley, 1978 and Brownell, 1982) have had contradictory findings. Finally, the budget system has a close relationship with situational factors. Many situational factors, as discussed in the next chapter, essentially influenced the proposition expectation.

8.5 Selection of Managers and the Uniformity of MCSs

Proposition 3-3: The more relatives or in-group subordinates used in European operations, the fewer differences of MCSs between Taiwanese and European operations.

The selection of managers could significantly influence the uniformity of management control systems. Those companies putting more emphasis on an in-group may have a more uniform system between their domestic operations and overseas operations than do those companies which put less emphasis on an in-group. Tatung obviously not only focused on managers' loyalty and tenure but also sent whole managerial teams to its foreign operations. It is classified as a "high in-group" firm.

Lite-On emphasised professional managers and hired localised managers as soon as possible. It can be put in the type of "low in-group." Mitac and Acer were midway but Mitac kept a little more of an in-group, and they may be classified as the type of "intermediate in-group." The impact of the selection of managers and uniformity of MCSs will be discussed as follows in further detail for each of the case firms.

8.5.1 Planning Process

The extent of in-group selection of managers had an obvious impact on the planning process of European operations. Senior managers coming from the headquarters played important roles as commanders, policy-supporters, decision-makers, and planners in their European operation, and they did significantly affect their planning systems. The more in-group subordinates used in European operations, the more similar the objective setting process, communication style and approach, and focus on short term financial objectives or long-term strategic objectives to Taiwanese operations. Each case firm will now be discussed in further detail as follows.

8.5.1.1 Tatung

Owing to having strong in-group managers from Taiwan's Tatung, they followed the Tatung system in the planning process. The president of the British operation is the son of the chairman of Tatung group, and he played a role as the chairman of Taiwan Tatung Company. He asked his employees to follow the Tatung operating philosophy and spirit. He set objectives with two managing directors⁵⁹ and then communicated them down to the basic managerial level to carry them out.⁶⁰ In addition, all other senior managers also came from headquarters, so they easily followed the president's instructions.

The Tatung British operation used a top-down approach for objective setting. Its management team also participated in discussions through weekly and monthly formal operating management meetings, and their managers focused on short-term planning. However, the whole planning process remained similar to the Taiwanese operation and their Chinese managers play critical roles.

8.5.1.2 Mitac

Although the managing director and some senior managers are Chinese, it seems there was less transference in the planning process from the Taiwanese operation. The managing director of the British operation was from Tatung UK

⁵⁹From the interview with the executive director of Tatung (U.K.) Company.

⁶⁰From the interview with the deputy controller of Tatung Company.

company since the company was set up in 1988 and he used a more centralised management style, learning from the Tatung company. However, he kept more informal and flexible systems in Mitac. With a special relationship with the chairman, he matched and followed the headquarters' objective very well and used a top down approach in his operation and then communicated them down through the organisation. In addition, headquarters also sent some people as key managers in the British operation. Only key managers participated in the objective setting and the budget was built simply on a company-wide basis. The participation in budgeting in the British operation could not compare with the Taiwanese operation, but under its production structure of modularised manufacturing system (MMS), Chinese managers not only affected the style of participation, but also could help with lots of communications between headquarters' managers and local managers. As to long-term and short-term planning, its managing director seemed easily to follow the style of the Taiwanese operation. Both operations had only very rough long-term plans, and they all emphasised the short-term budget.

8.5.1.3 Acer

On objective setting, Acer used a top-down approach to determine the basic objective for its operations. About the middle of October, top management would decide the initial objectives for each operation, and if operations had difficulty in achieving targets they had to present reasons to headquarters to be approved.⁶¹ Because the total objectives already had a consensus in summit meeting, its chairman said: "Of course the objectives will be reasonable, attainable, and comfortable." Normally most operations could accept their objectives. According to the Acer culture, each operation could argue the budget target with headquarters, but its manager needed to present strong persuasive reasons and figures.⁶² Owing to the close relationship between objective and incentive, country heads always remained a little conservative and there were some negotiations in budgeting.⁶³ Though they had lots of arguments, actually their results figures always exceeded budget targets in past years.⁶⁴ Chinese managers could easily follow this model and play important roles in European operations.

On participation, owing to cultural differences communication in European operations is more difficult than in Taiwanese operations. Facing a quickly changing industry and "fresh food" operating model, it is necessary to keep close contact between Taiwanese operations and European operations. Communication was kept

⁶¹From Acer 1995 budget guideline.

⁶²Quotation from the interview with the controller of Acer Computer GmbH.

⁶³Quotation from the interview with the president of Acer European headquarters.

⁶⁴From the interview with the managing director of Acer U.K. Limited.

both informal and flexible. Chinese managers acted as bridges between headquarters' managers and local managers.⁶⁵ They could communicate with headquarters' managers faster than could local managers.⁶⁶

On short-term and long-term planning, they focused adequately on the annual budget but they set some long-term strategies and goals. Actually, as their long-term visions could not easily transfer into a clear plan and financial budget⁶⁷, their long-term plans lacked executive power. All managers had a consensus focusing on short-term planning, but Chinese managers seemed more confident to follow their long-term visions than did European managers.

8.5.1.4 Lite-On

With the philosophy of "only local people know how to use local resources⁶⁸", Lite-On used local managers at their overseas operations as much as possible. Although in the British operation at the moment all managers are English, as its managing director has already been in co-operation with headquarters for more than fifteen years he shares some of the same values with headquarters and has learned some corporate culture from the Taiwan Liton Co.⁶⁹

On objective setting, the British operation used more of a bottom up approach in budgeting than did the Taiwanese operation, but in participation the managing director followed some team discussion methods from Taiwan Liton, and he asked his managers to make more input in budgeting. As to long-term and short-term planning, following Taiwan Liton they also developed a rough three years of strategic planning, then the annual budget, but basically they still put more emphasis on the annual budget.

8.5.2 Organising Process

A relatively close relationship existed between the in-group managers' selection and the uniformity of the organising process. Wherever possible, senior in-group managers retained similar organising processes as did their Taiwanese operations. More in-group firms showed more similar decentralisation and formality in the organising process between their Taiwanese operation and European operation. Each case firm will now be discussed in detail as follows.

⁶⁵Quotation from the interview with the president of Acer European headquarters.

⁶⁶From the interview with the senior VP of Acer Inc.

⁶⁷From the interview with the controller of Acer Computer B.V.

⁶⁸Quotation from the interview with the president of Taiwan Liton.

⁶⁹From the interview with the managing director of Lite-On Limited (UK).

9.5.2.1 Tatung

The in-group managers kept the British operation's hierarchy but with a clearly decentralised system in routine matters. They followed routine decentralisation, but significant decisions always needed to be approved by top management as in Taiwan Tatung. In addition, they also kept basic formal procedures and written documents as in Taiwanese operation. Overall, the British operation had a strongly similar organising process to the Taiwanese operation.

8.5.2.2 Mitac

Significant differences in decentralisation existed between the Taiwanese and British operations. The Taiwanese operation was more decentralised in decision making, but the managing director of the British operation still followed closely the conservative financial philosophy of Mitac's top management. In addition to the managing director controlling personnel and making significant decisions, he also arranged for Chinese people to be in charge of purchasing and treasury work for financial security reasons.⁷⁰

On formality, the British and Taiwanese operations had obvious differences. The Taiwanese operation kept relative formality, but the British operation was quite informal and flexible. Only a few regulations had written documents and things could easily be changed. The factors of size and marketing orientation seemed to make significant impact on the system design.

8.5.2.3 Acer

In European operations, Chinese managers significantly played important roles in the organising process of management control systems. Most followed a decentralised management style as in the Taiwanese operations. In the Dutch operation, in addition to the head from headquarters, nearly 50% of the managers were from Taiwan and they occupied most of the senior positions. The decentralisation was quite clear at senior management level on a team work basis, but under the middle management level the decentralisation was not too high⁷¹. In the German operation, for ethnic and historical considerations Acer selected a German as the first managing director, but it sent a second managing director from headquarters, as it had done in the American and Japanese cases.⁷² In addition, the controller also came from headquarters. Although two senior managers shared some power under the first managing director, basically the decentralisation in the German operation could not compare with that in the Dutch operations. In the British operation, as its managing

⁷⁰From the interviews with the managing director and the technical managers of Mitac Europe Limited.

⁷¹Quotation from the interview with the controller of Acer Holland Company.

⁷²From the interview with the second managing director of Acer Computer GmbH.

director came from European headquarters, he followed Acer's decentralised approach and made significant decisions by team discussion. They focused on their discussions and moved the discussions to the result they wanted.⁷³ Overall, Chinese managers with a high authorisation, especially country heads, had obvious impacts on the decentralisation.

On formality, Acer always focused less on regulations and procedures but put more focus on flexibility. Its chairman described his viewpoint: "It is characteristic of us that we fear to cultivate in managers a dead concept which may lead them to do things inflexibly, so we always train managers at their place of work. They learn experiences directly from their work but only a little from class training. They learn lessons from real cases by reviewing what has happened in their work surroundings." Flexibility rather than formality was strongly disseminated through all overseas operations by their managers from headquarters. Compared to the Taiwanese operation, European operations were more flexible.

8.5.2.4 Lite-On

On the organising process, Taiwanese and British operations had obvious differences. The Taiwanese operation was more decentralised and formal than the British operation. The British operation's leaders were trying to change their culture. They hoped to take their company from a centralised pyramidal structure to one more decentralised in decision making⁷⁴ and to be more flexible while maintaining proper formal documents. Essentially its organising process seemed little influenced by Taiwanese headquarters.

8.5.3 Evaluation Process

Generally speaking, the in-group in managers' selection had an obvious relationship with the evaluating process. The more in-group companies had more similar controllability-filters and deeper feedback. Each case firm will now be discussed in detail as follows.

8.5.3.1 Tatung

Compared to other groups, Tatung had a strict and uniform culture control. Chinese senior managers preserved the culture well in the British operation. On controllability-filters, they asked their managers to report and explain variance items in operating meetings but little consideration was given to changing their targets or

⁷³Quotation from the interview with the controller of Acer UK Company.

⁷⁴From the interview with the managing director of Lite-On Limited (UK).

standards. They used performance reports based on standard cost as a basic feedback means. In addition, its top management played an important role in procedure control and gave directives in different meetings. Essentially, Chinese managers strongly upheld Tatung's traditional evaluation system in the British operation.

8.5.3.2 Mitac

Taiwanese and British operations had similar approaches on controllability-filters. Top management in both operations could consider the explanation of uncontrollable factors under special conditions. In the Taiwanese operation its managers' performances were evaluated tier by tier, but basically they emphasised work attitudes more. In the British operation its managing director could totally handle the evaluation of managers' performance. "The managers' performance always depends on the managing director's judgement."⁷⁵ Because the company scale was still small and he knew each department very well, he could directly contact each department and controllability-filters seemed unimportant to him.

Taiwanese and British operations had some similarities in feedback extent and frequency. Their managers used "BEPaid" report system to check their operating performance and they shared the same focus and the same operating philosophy, especially on accounts receivable and inventory management. Chinese managers showed an obvious impact on the feedback process.

8.5.3.3 Acer

Acer put more emphasis on objective management but less on strict budget control. They encouraged their managers to compete with one another to pursue their objectives, but normally they did not consider uncontrollable items in the performance evaluation⁷⁶. In the European area, the budget bottom line was the only formal criterion for performance evaluation and they compared and analysed by different countries.⁷⁷ Under special conditions, they still accepted discussions and arguments.⁷⁸ Sometimes European headquarters would agree to the special conditions in advance, excluding them in operation performance evaluation.⁷⁹ Generally speaking, Chinese managers found it easy to follow this approach, as its president of European headquarters said: "Because the language and thinking are the same and they have stronger determination to finish their missions", Chinese managers in Europe had relative impacts on controllability-filters.

⁷⁵Quotation from the interview with the controller of Mitac Europe Limited.

⁷⁶Quotation from the interview with the president of Acer European headquarters.

⁷⁷From the interview with the general controller of Acer European headquarters.

⁷⁸From the interview with the financial controller of Acer Computer B.V.

⁷⁹From the interview with the general controller of Acer European headquarters .

Acer had moderate feedback in the European area. Each operation had to send its monthly performance reports to European headquarters. Some senior Chinese managers at headquarters took charge of the main functions, including those of general controller, treasury director, and product managers to review financial conditions, cash management, and inventory management. Hence, feedback of some important functions of European operations happened at European headquarters. The feedback of budget items in different countries seemed quite slack. Good warning budget systems were lacking in European operations: even comparing with the previous month is better than comparing with the budget.⁸⁰

8.5.3.4 Lite-On

The British operation considered uncontrollable items and accepted managers' explanations as in Taiwanese operation, but it lacked clear definition and a formal system. In addition, it built its budget on the whole company basis, so it often lacked enough financial data to feedback each unit's performance. Its senior managers used more non-financial targets to measure their managers' performance through weekly and monthly meetings. The monthly performance report obviously lacked the function of deep feedback. "The firm needs to teach managers more financial control within the company."⁸¹ Overall, it seemed there was little relationship between the managers' selection and transference of the evaluating process within Lite-On.

8.5.4 Rewarding Process

The rewarding process of European operations in the case firms was more or less affected by the factor of managers' selection. They used the Taiwanese compensation system for Chinese managers. As a result, dual systems existed in an operation. In addition, with the influence from Chinese managers, some rewarding practices were gradually brought into European operations. Each case firm will now be discussed in detail as follows.

8.5.4.1 Tatung

Compared to other processes, the top management of the British operation seemed to have more respect for the British compensation system. It still kept more pre-set rewards, individually based, and with short-term emphasis, for British people, but senior Chinese managers always selected the Taiwanese compensation system containing some contingent rewards on more of a group basis and with more long-

⁸⁰From the interview with the financial control of Acer Computer B.V.

⁸¹Quotation from the interview with the executive director of Lite-On Limited (UK).

term rewards. Basically they used a different compensation system for Chinese managers, but asked their Chinese managers to follow Taiwan Tatung's work system including more work time and fewer holidays. Managers' selection seems to have had relative impact on the rewarding process, especially contingent rewards.

8.5.4.2 Mitac

The managers' selection had some impact on the rewarding process in the Mitac's British operation. Although the British operation had no formal bonus system and most people had only 12 months pre-set salary, senior managers still had some bonus. The managing director's reward was strongly connected to the budget performance and all senior Chinese managers could select the Taiwanese compensation system. The lower levels of marketing people got more group incentives than individual ones. As to long-term rewards, Chinese managers and a few senior European managers participated in the stock purchase plan of Taiwan Mitac.

8.5.4.3 Acer

Chinese managers had some impact on European operations' rewarding process. First, owing to the tax consideration almost all Chinese managers chose the Taiwanese rewarding system. Secondly, European headquarters also set some small contingent reward schemes to encourage their operations to achieve targets and their operation heads also preferred, to some extent, group rewards. Comparing three European operations, the Dutch and British operations led by Chinese heads were more group oriented than the German operation handled by a German. On long-term rewards, except for Chinese people in European operations European employees could not take part in the stock purchase plan, but under its "local touch" plan all managers will become main shareholders of European companies in the future.

8.5.4.4 Lite-On

A strongly different rewarding system existed between the Taiwanese and British operations. The Taiwanese operation focused on pre-set and contingent rewards, group rewards, and short-term and long-term rewards, but the British operation used only a simple pre-set salary system. In addition, owing to continual losses, no salary increase had been given in the previous four years. It lacked any transference of rewarding system from its headquarters, except that its top managers plan to use a group bonus scheme in the future.

8.5.5 Summary and Discussion

Summary

First, except for the rewarding process overall the factor of in-group managers' selection affected the MCS transference by the extent of in-group managers' selection. The more in-group managers' selection the more impact on the transference, and vice versa. Secondly, in-group managers' selection still had relatively significantly impact on the rewarding process, but it seems not to be related to the extent of the in-group. The philosophy of the operation's head and the extent of decentralisation may result in some differences. Overall, except for Lite-On which had no Chinese manager in the British operation, other firms maintained a dual compensation system for Chinese and European managers and they did not intend greatly to change their European operations' rewarding systems. Thirdly, Acer and Mitac were classified in the type of "intermediate in-group", but Acer had a slightly stronger impact than Mitac. There are two main reasons: less degree of control by headquarters and more shared values. Under the framework of the client-server structure, Acer had a more clearly decentralised structure than Mitac. Naturally, its Chinese managers, especially operation heads, in European operations had more power to change some systems. The relationship between in-group managers' selection and the uniformity of MCSs was moderated by the degree of control from headquarters. All senior Chinese managers in Acer's European operations came from Taiwanese operations or headquarters, and they strongly shared the same management values, especially at the spiritual level. In Mitac's European operation, however, its managing director and some senior managers came from the Tatung UK Company, and more or less retained the Tatung culture and lacked such strong consensus with headquarters as Acer.

Except for the rewarding process, proposition 3-3 was broadly supported by this research. In addition, if the case firms were reclassified as an in-group (Tatung, Mitac, and Acer) or non-in-group (Lite-On), the proposition in the rewarding process seemed consistent. That means the in-group firms still had clear impacts on the transference of their rewarding systems, but the situation could not be found in Lite-On. Overall, the variable of in-group managers' selection had more power than the other two factors in the transference of MCSs.

Discussion

The result reflected a very reasonable logical relationship between MCSs and managers' selection. Many studies (such as Quinn et al., 1988; Triandis, 1989; Triandis & McCusker, 1990; Hofstede, 1991; Fuller & Peterson, 1992; Whitley, 1992; Li, 1993) have shown in a collective society such as Taiwan, corporations' leaders

have preferred selecting their managers from their in-group. This research found, except in the case of Lite-On, that this feature also existed to a greater or lesser extent.

Managers selected from their in-group are very important bridges in host countries (Boyacigiller, 1990; Ferner, 1996). Expatriate managers in top positions easily introduce country-of-origin systems into host country operations. Ferner (1996) found that expatriate managers significantly affect human resource management in MNCs. Some leaders of Multinational firms attempt to decrease or eliminate cultural differences through human resource management (Schneider, 1988). Though lacking literature for direct comparison, according to prior research these research results seem reasonable.

8.6 Summary

This chapter has examined the relationship between the financial control style and the uniformity of MCSs within the case firms. Through examining three financial control factors at the cases' headquarters, three different control styles in reality could be found in the case firms according to the extent of financial control. These results have been linked with the extent of uniformity of MCSs (analysed in chapter 6) between the Taiwanese and European operations in the case firms. Except for the rewarding process, the extent of financial control style appears to have a close relationship with the similarity of MCSs between Taiwanese operations and European operations within the case firms. That means the financial control style has a strong relationship with the transference of MCSs.

Further examination of three sub-propositions by three financial control factors showed that the proposition that managers' selection had an obvious relationship with the transference of MCSs could be broadly accepted by the research. The proposition of degree of control, except for the rewarding process, still could be broadly accepted by the research. As to the proposition of budget emphasis, it was difficult to accept the whole MCS or process, and thus only some components could be accepted. However, the proposition was supported in the planning, organising, and evaluating processes between the firms with a "high budget emphasis" and the those with a "non-high budget emphasis." Some other factors or moderators may also exist between budget emphasis and the uniformity of MCSs.

Overall, financial control factors had obvious impacts on the process of the transference of MCSs, but less on the rewarding process. National culture and some political and social-economic factors seem more important to the compensation system.

Having discussed the relationship between financial control factors and the uniformity of MCSs, this research will continue in the next chapter to explore the impact of situational factors on the process of the transference of MCSs.

9. Other Situational Factors and the Uniformity of MCSs

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- 9.1 Introduction
 - 9.2 Size of Operation
 - 9.3 Age of Operation
 - 9.4 Approach to Acquisition
 - 9.5 Business Focus
 - 9.6 Summary
-

9.1 Introduction

National culture and financial control factors are important determinants of the design of MCSs within multinational firms, but some situational factors related to their local operations also significantly impacted on the uniformity of MCSs. This research has discussed the impact of national culture in chapter 6, and the impact of financial control factors in chapters 7 and 8. This chapter will continue to discuss the impact of other situational factors on their European operations. As Table 9.1 shows, four situational factors, including size, age, approach to acquisition, and business focus, will be observed in this research. Four propositions representing these four situational factors will be examined as follows.

Table 9.1 A Summary of Situational Factors in the European Operations within Case Firms

Situational factors	Tatung British operation	Mitac British operation	Acer European operations	Lite-On British operation
Size of operation (employees)	600	280	UK: 70 Holland: 120 Germany: 130	130
[size of the Taiwanese counterpart]	[1,100]	[1,000]	[130]	[150]
Starting date of operation	1981	At the end of 1988	All in 1989	1991
Approach to acquisition	Purchase	Greenfield	Greenfield and purchase	Purchase
Business focus	Production-marketing oriented	Marketing oriented	Marketing oriented	Production-marketing oriented

9.2 Size of Operation

Proposition 4-1: The size of European operations has relative impacts on firms' management control systems. The larger the European operation, the fewer MCS differences between the European and Taiwanese operations.

The size of operation had significant influences on the uniformity of management control systems. The research intended to control for the size of comparative samples between the Taiwanese and European operations in each of the case firms, but as Table 9.1 shows there were difficulties in doing this. The operations producing equivalent products were considered first in choosing sample pairs and then the size of operation. Tatung showed different numbers of employees between its Taiwanese and European operations in 1996, but both operations had the scale of a large company and they had a close basis for comparison with each other. Mitac showed obviously different scales between its Taiwanese and European operations. As described in the last chapter, the size of operation obviously impacted on the uniformity of MCSs in Mitac, especially in the components of objective setting, participation, decentralisation, and formality, between the two operations. Acer and Lite-On seemed to have equivalent scale. However, even with an equivalent scale of operations between the Taiwanese and European operations in the case firms, normally the Taiwanese operations could share more common functions and resources with their other Taiwanese operations within the case firms.

For the European operations, a large operation easily follows the system of its Taiwanese counterpart, because it normally has the same organisational structure. On the contrary, a small and middle operation often emphasises only a few functions and lacks the comprehensive organisation of its Taiwanese operation. By numbers of employees of the case firms, the European operations can be classified into two groups: a large company like Tatung (U.K.) Limited and SME (small and medium enterprise) groups including the European operations of Mitac, Acer, and Lite-On.

9.2.1 Large Operation

In 1996, Tatung (U.K.) Limited employed nearly 600 people and before 1991 more than 1,000 employees. Its Taiwanese and European operations all had a large and equivalent scale. With rapid change and severe competition in the European market, its parts manufacturing was transferred to Thailand which has about 1,000 employees at the moment. The British operation followed its parent company setting up different departments including marketing, R&D, purchasing, production, sales,

service, and finance to handle different functions.¹ In its hierarchical structure, Tatung (U.K.) Limited is like a miniature of Taiwan Tatung. Because of similar structures, Tatung (U.K.) easily followed procedures used in the parent company. Because Tatung (U.K.) had enough size to follow its parent company, of course, it easily had a similar planning process, organising process, and evaluating process. Objectively, the size of operation is not a prerequisite term like financial control factors on the transference of the Tatung management control system, but obviously it is an important supplemental term.

9.2.2 SME Group

In this group, owing to their small size, their basic organisation structures could not compare with their parent companies. Although they still could keep some of the spirit of MCSs from their parent companies, basically they often lacked the ability to follow a formal system from their parent companies. Overall, the organising process and the evaluation process were strongly affected by their small size.

9.2.2.1 Mitac

With the strategic alliance with Compaq, Mitac Europe Limited quickly increased its employees from 150 people to about 280 at the end of 1995. Obviously its size could not compete with the Taiwanese operation which employed nearly 1,000 at the same time. Although it owned an assembly plant producing PC products, its techniques were all supported by the Taiwanese operation and most key components were also supplied from there. Comparing its Taiwanese and British operations, obviously, the British operation lacked the function of R&D and some functions had only one head or a few managers.² Owing to the dependent relationship and work necessary, each function needed to communicate with its Taiwanese operation. The network system³ or matrix system⁴ was very popular within the Mitac group. Given the environment, the spirit of some management control systems can be easily transferred from headquarters. However, owing to its small size, simple and informal systems seemed naturally to become its aim. Compared to the Taiwanese operation, Mitac's European operation took a simpler way determined by key managers to set its objectives. It used a company-wide budget instead of a segment budget and spent little time in budgeting. It followed up its budget and financial results on a whole company basis, lacking segment control. It lacked clear decentralisation in decision making and

¹From the organisational charts of both Taiwan Tatung Corporation and Tatung (U.K.) Limited.

²From the organisational charts of both Taiwan Mitac Corporation and Mitac Europe Limited.

³From the interview with the chairman of Mitac group.

⁴From the interview with the managing director of Mitac Europe Limited.

easily changed its rules and regulations. Its managing director played an important role in the management process through a series of informal meetings and discussions. As described in the last chapter, The size of operation played an important moderating variable between the relationship of uniformity of MCSs and the degree of control, budget emphasis, and the selection of managers in Mitac, especially the budget emphasis. Though Mitac and Tatung all more strongly emphasised financial control, the uniformity of MCSs between their Taiwanese and European operations showed obvious differences, especially on the components of objective setting, participation, decentralisation, and formality. However, some of them could be influenced by other factors, but the size of operation was an essentially important moderating factor on the relationship of financial control factors and the uniformity of MCSs.

9.2.2.2 Lite-On

Lite-On's British operation employed only about 130 people, a small company. Most employees were involved in manufacturing activities including production, quality control, engineering, and R&D, and only a few staff handled marketing and administrative activities, including two top managers, five marketing personnel, and eleven administrative staff.⁵ For reasons of survival, "business in general is levelling in nature, re-cutting levels, trying to achieve better results."⁶ Some departments had only one person or a few people. The financial director managed even the personnel, materials control, accounts, and MIS departments and there were only two people in the financial department.⁷ Departmental functions were not clearly divided.⁸ In production, there were clear procedures to follow set by ISO #9000, but in other fields or decision procedures they were still kept very informal and flexible.⁹ In budgeting, except that the production and sales and marketing departments participated more, most of the rest was prepared by the financial department which then asked departmental heads to commit themselves to the budget. Basically, the budget was built on a company-wide basis. The budget control and evaluative function was obviously insufficient within the company, as its financial director described: "It is not a real control system at present."

9.2.2.3 Acer

The size of Acer's Dutch and German operations in Europe was like Lite-On's, and its British operation employed only about 70 people. Although each operation

⁵Refer from the organisational chart of Lite-On Ltd (UK).

⁶Quotation from the interview with the managing director of Lite-on Ltd.

⁷From the organisational chart of Lite-On Ltd.

⁸Quotation from the interview with the financial director of Lite-On Ltd.

⁹From the interview with the personnel officer of Lite-On Ltd.

enjoyed great latitude for decentralisation in decision making, they lacked a basic organising and evaluating process. However, Acer smartly used the principle of "The simpler the matter, the easier the management."¹⁰ They placed some complicated functions at European headquarters, even Taiwanese headquarters, believing country operations simpler and easier to manage on location. It set up the Acer European Business Unit as a regional headquarters of Acer group to manage ten subsidiaries in Europe¹¹. Its total head count of all subsidiaries already neared 400 and it neared large company scale. Several key corporate functions were centralised in the regional head office, including treasury, legal, logistics, purchasing, controllership, MIS, marketing and product marketing functions.¹² Each individual country operation could get support from European headquarters. From the viewpoint of the operational level, each operation, owing to its small size, lacked formality and a deep control function, but some significant factors were continually monitored by regional headquarters. So from the viewpoint of the regional business unit, it still easily handled all of its subsidiaries. Each operation seemed better for having informality and flexibility than the Lite-On and Mitac British operations.

Basically, each Acer European operation shared its objectives with headquarters. Each operation head used a top down approach to determine its budget. They took little time to build their budget. Except for the Dutch operation, other operations developed their budgets only on the company-wide basis. Full authorisation and flexibility were obvious characteristics in their organising process. They almost did not consider controllability-filters in their evaluation systems and their feedback focused only on turnover and profit.

9.2.3 Summary and Discussion

Summary

A comparison of the components of MCSs between Taiwanese operations and European operations shows a close relationship between the financial control style and the uniformity of MCSs among case firms. Tatung obviously had more similarities between its Taiwanese and European operations than Lite-On, Mitac, and Acer. Mitac had more similarities than Lite-On and Acer, but as described above the size of operation significantly moderated the uniformity between its Taiwanese and European operations. In addition, in Europe, Tatung (U.K.) Company, as a large company, showed significant differences from the SME group and it was better placed to follow its parent company's MCSs than other companies. The two groups (see Table 9.2) in

¹⁰From the interview with the financial VP of Acer group.

¹¹From the business summary of Acer Europe Business Unit.

¹²From the business summary of Acer Europe Business Unit.

the European context showed strong differences on the variables of objective setting, participation, formality, and feedback extent and frequency. Tatung had a more formal and integrated top down process on objective setting, more managers participated in its budgeting, and they kept more formal and written documents. In addition, Tatung also under took a deeper feedback than those operations in the SME group. Tatung was large enough to divide its business into an information division and television division so it differed from other companies which dealt with their companies as a whole. With a detailed departmental budget and standard costing, naturally Tatung could feedback more detailed information than did other companies. In the SME group, they spent little time and followed a more informal and simple way in objective setting and participation. Their formal documents, regulations, and procedures could not compare with Tatung's European operation and they were easy to change with different situations. In addition, their MCSs did not design for detail and deep feedback as in Tatung's European operation.

Table 9.2 The Comparison between Tatung and Other Firms in the European Operations

Variable	Large operation (Tatung)	SME group (Mitac, Lite-On, & Acer)
Objective setting	<ul style="list-style-type: none"> • Formal planning committee • Standard and long period for budgeting • More bureaucratic reviews • Formal top-down process 	<ul style="list-style-type: none"> • Informal process or procedure • Short period for budgeting • Less bureaucratic reviews • Less formal objective-setting process
Participation	<ul style="list-style-type: none"> • More discussions and meetings between superiors and subordinates • Long period for budget participation • Formal and periodic management operating meetings 	<ul style="list-style-type: none"> • Informal discussions and meetings • Short period for participation • Less discussions between departments
Formality	<ul style="list-style-type: none"> • Standard budgeting process • Formal rules and procedures • Difficult to change rules 	<ul style="list-style-type: none"> • Informal budget process • Informal rules and procedures • Easy to change rules
Feedback extent and frequency	<ul style="list-style-type: none"> • Segment budget control • Standard costing • Detailed variance analysis 	<ul style="list-style-type: none"> • Plant-wide budget control • Rough budget for comparison • Focus critical figures

Except for the rewarding process, the proposition could be broadly supported by the research, especially on the processes of objective setting and participation, formality, and feedback extent and frequency. Owing to the difference in size, Tatung obviously was better able to keep a similar system between its Taiwanese and European operations compared to other companies.

Discussion

Size is the most frequently considered contingent variable in the literature of contingency research (such as Hickson et., 1986; Negandhi, 1975; Lincoln et al., 1978; Rockness and Shields, 1984; Lincoln et al., 1986; Demirag, 1970; Wong and

Birnbaum-More 1994; Dedousis, 1995). Most of these researchers' could support their hypotheses or propositions. The results of this research showed a great consistency with prior research. Some management systems need to change to match operations' size. Mitac's European operation, with an obviously different scale from its Taiwanese counterpart, could not follow many systems from its parent company. Small European operations like those of Acer, Lite-On, and Mitac needed to keep a simple, informal, and flexible system. In contrast, Tatung's European operation had a size consistent with a large company. It could easily learn management systems from the Taiwanese counterpart. The research results reasonably reflected this situation.

9.3 Age of Operation

Proposition 4-2: The age of European operations has a relative impact on firms' management control systems. The older the European operations, the fewer MCS differences between the European and Taiwanese operations.

Except for Tatung (U.K.) set up in 1981, all other companies invested in Europe between 1988 and 1991. Tatung belongs to the early group, and other companies are classified as the late group. The difference in the time of investment meant firms faced a different investing environment, and it is very difficult to see the individual influence on the components of MCSs in the research. However, time could gradually eliminate some cultural discrepancies and bring more consensus between Chinese managers and local managers, even between managers and employees.

9.3.1 Early-established Firm: Tatung

At the beginning of 1980, the Tatung Company was confronted with rapid economic change and severe competition in the world market. Tatung's top management forecasted that regional economic organisations were to be formed and the trade protection policy of the European Community seemed inevitable. Its chairman decided to establish a foothold in Europe to meet the needs of European customers.

In 1981, Tatung acquired radio and television manufacturing interests in Decca Limited, including its distribution network and research and development laboratory. Tatung sent many managers from Taiwan's Tatung to take charge of relevant departments. At that time the trade union was very strong and it could not compare with the present.¹³ "It was a bad time really, just when Tatung took over."¹⁴ Some

¹³Quotation from the interview with the executive director of Tatung (U.K.) Ltd.

cultural conflicts happened and many negotiations with the trade union were needed at that time, but, except for the rewarding system, Tatung still moved its management control systems in force to the British operation through its managers. With the economic decline, the trade union was finding little excuse for a strike. In addition, through continuing communication, at present the trade union understands the company's difficulty more clearly and workers have worked with the company for a long time, so they have gradually come to get along well with the company. "It is better year by year, and the degree of variation has got smaller and smaller."¹⁵

9.3.2. Late Groups: Mitac, Acer, and Lite-On

Other firms' European operations including Mitac, Acer, and Lite-On were all set up in the period between the end of 1988 and the beginning of 1991. Compared to Tatung (U.K.) Limited., they have only a short history but they faced more competition at the beginning than Tatung. Owing to the European IT market falling into a serious recession since 1990, almost all their European operations stayed at the edge of survival and most of them suffered big losses in the past five years (see Appendix 4). With the economic recession, naturally the trade union became weaker and weaker. Those companies did not need to worry about the threat of strikes and at the current stage they concentrate only on their marketing. As to the management control system they emphasise only a basic framework and keep it simple, informal, and as flexible as possible.

9.3.3 Summary and Discussion

Summary

The classification between the large and SME firms is coincidentally the same as the grouping between the early-established and later-established firms. Tatung is a large and early-established firm, and other firms are SME and "late" companies. Early firms may learn more from their parent companies than late firms, so it is reasonable to presume that the differences in Table 9.2 could also come from the length of time firms have been established. However, further examination of the MCS of Tatung's (U.K.) Company found its MCS has kept almost the same since it started its business in the UK. As to the late firms, except that Lite-On Limited showed some little change after Taiwan Liton Limited took it over, no obvious changes were found in Mitac and Acer. In conclusion, the differences in Table 9.2 had little relationship with the length

¹⁴Quotation from the interview with the operating manager of Tatung (U.K.) Ltd.

¹⁵Quotation from the interview with the operating manager of Tatung (U.K.) Ltd.

of time of an operation. Most differences came from the different sizes and financial control factors.

However, as described above, time could gradually decrease the cultural conflicts. With the passage of time, local managers learn more about how to adapt to the management style of Taiwanese managers. Comparing the content of interviews between Chinese managers and European local managers in European operations of the case firms shows that Tatung's European operation obviously had more consensus on the components of its MCS than Mitac's and Acer's European operations. That means there was less cultural conflict and more consensus between Chinese managers and local managers in Tatung's European operation than in Mitac's and Acer's European operations at the research stage.

The proposition could not be supported by the research. No obvious evidence could be given to show this. However, within the same firm's operation, the older the operation, the fewer the differences in MCS perception between its Taiwanese and local managers.

Discussion

The proposition was not supported as predicted. No prior literature can be used to compare directly with this research. However, some reasons may be given to explain the result. First, except for the case of Tatung's European operation, other cases' European operations are still very young and they are all still in the survival stage. At this stage, survival is the most important thing. Secondly, the factor of age has a strong relationship with the factor of size. Operations with a small size like the cases of Acer, Lite-On, and even Mitac make it difficult to transfer many systems from their parent companies. Thirdly, except for Lite-On's European operation, most senior managers in other operations came from Taiwan. Chinese leaders believe in a man more than a system (Whitley, 1992). As long as these senior managers continue to keep top positions, it is difficult to change their MCSs. Fourthly, "want to change" differs from "could change." Leaders' control philosophies (Stacey, 1990, Dermer & Lucas, 1986) and corporate strategies (Goold & Campbell, 1987; Chakravarthy & Perlmutter, 1985; Nohria & Ghoshal, 1994) significantly affect whether a corporation can transfer its MCS to its foreign operations. For these reasons, the research result seems reasonable.

9.4 Approach to Acquisition

Proposition 4-3 The acquiring approach has relative impact on firms' management control systems. With the greenfield approach, there were fewer MCS differences between the European and Taiwanese operations than with the purchase approach.

There are two basic approaches to opening an operation in an overseas country: greenfield or purchase. Mitac's European operation is a greenfield company, and Tatung's and Lite-On's operations are by purchase. Acer's German and Dutch operations are from purchase, but its UK operation was set by greenfield at first (a small company) and then purchased Altos Company two years later. Mitac's European operation is classified as a greenfield company, and other groups' European operations are classified as purchase groups.

Generally speaking, the greenfield approach may easily set a new system and rules, but it is more difficult at the beginning of operations; on the contrary, the purchase approach may be a great help at the beginning of operations, but lead to more difficulty in setting up a new system and rules. Under the purchase approach the "cultural fit" is a major cause of implementation difficulties (Olie, 1994: 384), especially at the beginning, but under the greenfield approach cultural conflict could still happen in future operations. The factor of the opening approach could even affect the managers' selection and organisation in an operation.

9.4.1 Greenfield Company: Mitac

Its British operation was formed at the end of 1988, but its managing director and a few senior managers came from Tatung (U.K.) Limited. Compared to the hierarchical structure of Tatung (U.K.) Limited, its British operation is more flexible and informal.¹⁶ They keep only a few basic written documents and change them when they feel it is better to change. Everyone calls the managing director by his name, not as in Tatung by his position title. On the basic management style, however, he still uses centralised decision making, learning from the Tatung Company. He handles almost all important decisions and most decisions have to be referred to him.¹⁷ He also uses weekly operating meetings to assign responsibility and follow up for each unit, and to give some instructions. There is apparently no trace of decentralisation in Taiwan Mitac. When the managing director formed the company, because he had worked in the Tatung corporation for 17 years and did not stay at Mitac headquarters,

¹⁶Quotation from the interview with the managing director of Mitac Europe Limited.

¹⁷From the interview with assistant controller of Mitac Europe Limited.

he could just use the Tatung system.¹⁸ He described the situation: "When I began to use my corporation's system, I found it was difficult to adapt. I regret that."

The only chance to get in touch with senior managers at headquarters is in their global "kick-off meeting" every half year. The managing director has a good opportunity to discuss with senior managers at headquarters and understand corporation policy and philosophy, as he said: "After the meeting, I can bring some ideas back and build-up my management policy." Through the computer network organisation, they have common protocol communication language. Each function needs to have contact with headquarters' relevant functions. The matrix system brings the operation and headquarters close together and its headquarters easily manages the British operation in an environment of openly shared information.

Overall, although the British operation had the chance to follow its parent company's system, owing to the factor of managers' selection, its management control system seems a hybrid system between Mitac and Tatung groups. Though its managing director could ask his managers to follow his lead, the cultural differences on the MCS perception between its Chinese managers and local managers are still very serious, especially in the organisation and evaluating processes of MCSs.

9. 4. 2. Purchase Groups

The European operations of Tatung, Acer, and Lite-On are all purchased from other companies. However, owing to their facing different situations and managers' selection, the results of their operations show significant differences.

9.4.2.1 Tatung

In 1981, Tatung purchased the company from Decca Limited, a famous manufacturer of radio and television at that time. Tatung followed its traditional policy and sent many managers from headquarters, and they followed the system as in Taiwan's Tatung. They cancelled workers' coffee time in the morning and tea time in the afternoon, and prohibited workers' chat on the production line. Severe conflict between management and the trade union resulted from the different corporate cultures. "It was a tough time!"¹⁹ However, they educated their workers step by step and got along well with the trade union year by year.²⁰ Compared to 15 years ago, the cultural conflict is declining, and compared to other case firms, Tatung has kept strong similarities in its MCSs between its Taiwanese and European operations. The British operation seems capable of establishing its unique corporate culture, as its president

¹⁸From the interview with the managing director of Mitac Europe Limited.

¹⁹Quotation from the interview with executive director of Tatung (U.K.) Limited.

²⁰From the interviews with the executive director and the operating manager of Tatung (U.K) Limited.

said: "I made a great effort to rejuvenate the newly organised company under Tatung's managerial motto - honesty, integrity, industry, and frugality."

However, on further observation, the cultural problems did not seem completely eliminated in the past 15 years. It still uses a dual compensation system for Chinese people and local people, including different working hours. Local managers still hold their positions only on the middle and basic level. The cultural problems are weaker than in the past but obviously still exist.

9. 4.2.2 Lite-On

Its British operation was incorporated in March 1991 and acquired the assets and business of Northern Power Electronics Limited. The company commenced trading on May 1991 and changed its name to Lite-on Limited. From that time Headquarters selected its UK agent as the managing director to run the company. Taiwan Liton sent only one assistant there within the first two years for communication convenience. At the moment no Chinese people remain in the operation.

Most employees have stayed with the company for a long time, and when Lite-On took over, about 60 people continued with the company.²¹ However, the old corporate culture is not easy to change. The hierarchy in the Northeast is stronger than in other parts of the UK. The company had a very strong hierarchy 10 to 15 years ago, as its managing director described: "The difficulty in this part of the UK is that ideas are very old fashioned. You have to take a high hand and then there is a very big pyramid structure and the ordinary factory workers just don't make a decision." He continued: "We push harder and harder to make this change, to transform this structure." They encourage people to make decisions from the bottom. However, there is only slight change.²² The company continually suffers losses and its people have not had any salary adjustment in the past four years. Its employees' morale seems still to remain at rock bottom.

Taiwan Lite-On prefers local people to manage local business²³, so it allows British managers to manage the operation fully by themselves. Top managers originally expect to find some different systems between the Taiwanese and British operations, but as the operation was gained through the purchase approach, the old corporate culture still seriously bothered the British operation's managers. The result is that little system is transferred from headquarters and also managers find it difficult to set up a new system. Conversely, Lite-On invested in Malaysia in 1990 and Thailand in 1989 through the greenfield approach. When these companies were set up,

²¹From the interview with the managing director of Lite-On Limited.

²²From the interview with personnel officer of Lite-On Limited.

²³From the interview with the president of Taiwan Liton Electronic Ltd.

Headquarters sent many managers to handle each function. Then they quickly trained local people as managers and transferred their management system to them.²⁴ Until the present time, the Thai operation has had only a president from Taiwan and in the Malaysian operation only four people still remain. Both operations are quite successful. There were strongly different results between the greenfield and purchase approach within the Lite-On group, and the greenfield approach seemed easier for system transfer.

9.4.2.3 Acer

In 1984 Acer established its European branch office in Dusseldorf, Germany, for ease of handling its European business. After it became a publicly offered company in 1988, Acer showed its aggressive ambition and globalisation became its first objective. It set up lots of companies in American and European areas through the purchasing approach from 1989 to 1991. In 1989, Acer acquired Kangaroo Computer B.V. in the Netherlands and moved its European branch office into the Netherlands as regional headquarters.²⁵ In the same year it purchased a 50% share in Ce-Tec Data Technology GmbH, distributor of Acer products in Germany to form Acer-Cetec GmbH venture. Two years later (1991), Acer got another 50% share of that company and changed its name to Acer Computer GmbH.²⁶ Acer (UK) Limited was formed in 1989 for importing and distributing computer products under the name of "Acer International Limited." On 1st January 1992, the company acquired the trade, all business assets and liabilities of Altos Computer Systems Limited, a fellow subsidiary company incorporated in UK, and changed its name to "Acer (UK) Limited."²⁷ The number of its employees rose from 10 in 1991 to 51 in 1992.²⁸

With a series of purchasing activities, Acer faced a dilemma in its management. Basically, except for sending a few senior managers to different operations, it flexibly set different approaches for them. Their managers seem still to be at the learning stage and they keep on changing.

In the German operation, Acer shows more respect for the system and personnel of the original company. The original German managing director still handles everything. Acer has sent only two senior managers there. One is the second managing director to support logistic and inventory management, and the other is to take financial control. Its second managing director said that his missions are to bring in the production system and to be a bridge of communication between the German

²⁴From the interview with the controller of Taiwan Liton Electronic Ltd.

²⁵Information taken from Acer profile.

²⁶From the interview with the managing director of Acer Computer GmbH.

²⁷From the 1992 annual financial report of Acer (UK) Limited.

²⁸From the 1991 and 1992 annual financial reports of Acer (UK) Limited.

operation and Headquarters. He said: "The company has its own culture, and I expend lots of time in asking them to recognise the mother company." The system transfer, however, mainly involves the production system, MIS, and marketing management system, not the whole management control system.²⁹ In the existing environment, except for some common values having consensus, the original management control system is still followed, with only a little transference from Headquarters.

To the British operation, owing to its small scale, Acer did not send any senior manager from Headquarters before 1994. After purchasing Altos Computer Systems Limited in 1992, different corporate cultures produced a great deal of trouble within the company, as its controller from Altos described: "Because people came from different companies, different corporate cultures led the company to fall into a very difficult condition so you will find that for four years the revenue was the same." Because the company continually suffered big losses, in 1994, Dutch headquarters sent two senior managers there, the managing director and the logistic director. The new managing director quickly improved marketing channels and inventory management and soon the company came into profit.³⁰ Its managing director followed Acer's operating philosophy and the better result seemed to raise its employees' morale. Compared to the other two European operations, the British had more MCS similarities with the Taiwanese operation, especially on the variables of objective setting, short-term and long-term planning, and feedback extent and frequency. Although the managing director could introduce some systems from Headquarters, it is still a long way from adapting its Taiwanese operation's system.

In the Dutch operation, owing to the regional headquarters being there, about half the managers come from Taiwan Acer, and all of them handle different functions to support European operations. Local people are employed only as middle and basic managers at the moment. Under Acer's flexible and informal decentralised management style, the conflict from different corporate cultures seems not serious, but their mutual trust is still not enough. "Sometimes when changing a manager, the top manager needs to explain and describe why the change is necessary."³¹ Cultural differences on the MCS perception between its Chinese managers and local managers are serious, and communication problems are still not easy to overcome at the moment.

Overall, the purchase approach offered Acer better opportunities in their business growth, but owing to different corporate cultures, Acer cannot easily transfer or set up its MCS in European operations. They need to make some adjustments in different countries, as its senior VP said: "We can keep the spirit of a system, but it is

²⁹From the interview with the managing director (second) of Acer Computer GmbH.

³⁰From the interview with the managing director of Acer (UK) Limited.

³¹Quotation from the interview with the financial controller of Acer Computer BV.

difficult to overcome the cultural differences." However, compared to Tatung's case, its cultural conflict seems weaker. There are several reasons to explain the situation. First, Acer used a decentralised system and kept it informal and flexible. Based on the philosophy of "Human nature is essentially good", they tend to believe people. Given the environment, it is easy to lessen the cultural conflict. Of course, sometimes because of the lack of clear documents, some arguments may result. Secondly, as Acer's European operations all employ under 130 people, it is easier to manage through face to face communication. Thirdly, in the volatile PC environment, most employees are young people and they easily adapt to any change or find new jobs. Fourthly, Headquarters directly controls some critical common functions and lets each operation focus more on some simple functions. It is easy to communicate within the operation. Fifthly, those senior managers from Taiwan Acer all stay with Acer for many years and they all have a strong consensus in business operating philosophy and they do well as a bridge between local managers and headquarters managers.

9.4.3 Summary and Discussion

Summary

It seems unavoidable that cultural conflict will happen under the purchasing approach. As Table 9.3 shows, strong cultural conflicts happened in the early stages in Tatung's and Acer's British operations. Because Tatung moved its MCS into its British operation, the cultural conflict was more serious than in other cases, especially as at that time the trade union was very strong. Under the protective umbrella of high growth and the decentralised system, Acer's Dutch operation seemed to avoid strong cultural conflict, but Chinese and local managers still lacked consensus. Localisation seems a good alternative to avoid cultural conflict, but some serious problems still need to be considered. First, it may take a long time, or even be impossible, to turn a disadvantaged business into a successful company, and Lite-On's and Acer's British operations seem good examples. Many cases shown in the research could be quickly turned into profitable companies following losses by changing their local heads to Chinese managers. Acer's British operation became a profitable company only after changing its head to a Chinese manager for more than one year. Secondly, localisation might solve the cultural conflict within the operation but still could not solve the cultural conflict between headquarters and the operation, and Acer's German operation seems an obvious example. Thirdly, it is difficult to learn some advantages from the parent company. The new senior managers of Lite-On's British operation made efforts for a long time to change its culture and system, but their results seemed limited. Fourthly, even though there was no change in any top managers, the cultural conflict

could still happen within an operation, and it seems a popular phenomenon in each operation listed in Table 9.3.

Table 9.3 The Operations' Phenomena under the Purchasing Approach

Operation	Phenomena
Tatung UK	Strong cultural conflict existed at the early stage, but in time the conflict is declining.
Lite-On UK	Operation was completely localised but conflict also happened and the business is still unsuccessful.
Acer Holland	Obvious cultural differences always existed but the conflict was not too strong.
Acer Germany	Original system and personnel were respected and maintained, and only two senior managers were sent to assist its operating. However, some conflicts between the German operation and headquarters happened all the time.
Acer UK	Strong cultural conflict existed and the business was not a success before 1994. Acer sent a few senior managers to improve its operation from that time.

It seems there is a better opportunity of avoiding cultural conflict and transferring the MCS into the new operation under the approach of a greenfield investment. Mitac seems to have had a good opportunity, but it lacked sufficient time. In 1988, Mitac was still not a large multinational firm. It lacked global managerial talent and professional managers (Merchant et al., 1995). In addition, compared to Tatung at that time, it lacked a good MCS to transfer. As a result, a few managers from Tatung (U.K.) Limited were employed to set up its British operation. As it was a greenfield company and its stable personnel were high level, Mitac's British operation did not suffer serious cultural conflict. Its managing director seemed to handle his employees easily and well, but many differences of MCSs between the Taiwanese and British operations still existed and lots of differences (especially in the evaluating process) of perceptions still existed between Taiwanese managers and local managers. Although managers could accept philosophies and policies from headquarters, essentially the cultural conflict still exists.

The proposition could not be accepted by the research. The greenfield approach may have more opportunities than the purchase approach to decrease cultural conflict and transfer more systems to the European operation at the early stage, but it is not an absolute factor. The company philosophy, operation size, and other objective factors could significantly impact on the result. Tatung's British operation with a purchasing approach clearly had a transfer of its MCS, whereas Mitac's British operation with a greenfield approach did not. In addition, Acer's British operation was acquired by a purchasing approach in the first two years, but compared to its Dutch and German operations, no obvious cultural harmony and no system transfer were found in the research.

Discussion

As previous literature (such as Olie, 1994; Frucot & Shearon, 1991) has indicated, serious cultural conflicts happened in those companies purchased by multinational firms. However, cultural conflicts still existed in those companies with the greenfield approach. Mitac chose a greenfield approach to set up its European operation, but still some cultural conflict existed. Compared to Tatung, only a few systems were learned from its parent company. The first reason is the size. Mitac's European operations had high growth in the past decade, and it is still in a growth stage. It lacked a good opportunity to transfer MCSs from Taiwanese operations. When the four case firms started their businesses in Europe, except for Tatung, they were all very small companies. Their managers seemed to manage the companies easily and they could not even feel any differences between their approaches to acquisition. The second reason relates to the leader's strategic predisposition (Chakravarthy & Perlmutter, 1985) described in chapter 7. The strategic predisposition will significantly affect MCS transfer. Tatung's leader kept an ethnocentric orientation and, naturally, it transferred many MCSs to its European operation. In contrast, Acer and Lite-on focused on national responsiveness and a regiocentric orientation, and their European operations were allowed to have different systems. The third reason may be the business focus. In their European operations, Acer and Mitac have more marketing orientation than Tatung and Lite-On. Different orientations will lead to the choice of a more or less different system. For the above reasons, the approach to acquisition seems to lack a strong relationship with MCS transfer.

9.5 Business Focus

Proposition 4-4 The business focus of European operations has relative impacts on their management control systems. Under the production-marketing orientation, there were fewer MCS differences between the European and Taiwanese operations than under the marketing orientation.

The business focus of the overseas operation is an important factor in the process of MCS transfer. According to the product life cycle, Acer and Mitac are PC companies and their products have a short life cycle, normally less than one year. Tatung produces monitors and TV products and normally they have a 3-5 years' life cycle. Lite-On UK produces power suppliers and these have about a 3 years' life cycle

in PC, 7-8 years in office communication, and about 20 years in telecommunication.³² With the life-expectancy of the product volatile, each firm has a different strategy on the business focus of its overseas operations. Acer's and Mitac's European operations focus on marketing, and Tatung's and Lite-On's European operations emphasise production and marketing.

9.5.1 Marketing Oriented Group: Acer and Mitac

Facing a volatile environment, both firms finally found a model as their integrated framework. They set their manufacturing bases in Taiwan and other Asian countries, and placed their marketing bases around the world under their network marketing channels or product brands.

9.5.1.1 Acer

Before 1989, Acer averaged 100% growth rate over the 13 years from when it was formed. After it became a public company in 1988, Acer quickly stepped on to the global stage. It invested in manufacturing DRAM chips with Texas Instruments and purchased Altos Computer Systems and many other computer companies around the world. Excess long-term investment actually resulted in serious financial burdens for the group, although they have turned out to be extremely successful in terms of long-term business. When the structure of the IT industry began to change, Acer was saddled with an organisation that had already become too big to manage effectively. The company quickly turned into a loss company. Its chairman said: "It was clear that immediate action had to be taken to enhance efficiency, cut cost and scale down the organisation to strengthen competitiveness."

From 1989 to 1992, Acer started its re-engineering to build up a new global business model. It reorganised its group as a unique client-server management organisation structure that made effective use of the full range of resources available within the group, and the system's success can be traced to the managers who made it work. Acer's business works independently, but still interacts directly with other member entities at any time. It also redefined its European business as a Regional Business Unit (RBU) focusing on marketing. From 1992 Acer started to develop the "fast food model" in its RBUs. The components that have to be kept fresh would be ordered locally or shipped by air, and other parts which are least perishable could be sent by ship. "So the final product is just like a McDonald's hamburger: fresh, made-to-order, and of consistently high quality."³³ To support overseas assembly plants,

³²From the interview with a VP of Taiwan Liton Electronic.

³³From the collection of the speeches of Stan Shih.

Acer's engineers designed its "no screw" PCs so it is little more difficult to assemble them than to flip a burger. The "fast food" model cut Acer's companywide inventory by more than half, and it can franchise out very simple assembly plants around the world by seeking out local partners. It can easily satisfy its customers' different demands on both time and quality. Obviously, the new business model can meet speed, cost, and value. Its chairman proudly said: "Acer's success is largely due to the company's ability to restructure for maximum efficiency and cost-effectiveness."³⁴

Under the new business model, corporate headquarters acts as a resource centre to help facilitate product supply logistics, and to build and maintain the company's world-wide brand name. European operations are defined as regional marketing-oriented units. If they have customers, products can be easily assembled within a short time. They can follow the theory of just-in-time (JIT) to control their inventory. Actually after 1993 each European operation showed an obvious improvement in inventory control (see Appendix 4): for example, Holland even achieved 16 times of inventory turnover, a very low inventory level. Strictly speaking there is no real manufacturing function. They do not need to worry about the production process, manufacturing control, and R&D, and they just focus on their marketing development. In addition to headquarters help, the European regional headquarters also supports some common services, such as finance, marketing surveys, law, technique and engineering. Its financial VP at headquarters said: "The simpler the matter, the easier the management." Each country head enjoys great decentralisation in managing his own operation. Except for a few common regulations, basically he has great freedom to make decisions both flexibly and informally, as the chairman of Acer group said: "The only way we can operate is to give them a basic system framework and some approaches with business sense." In this situation, Acer had some common spirit of system which can be found on both sides, but there are lots of differences in the details.

9.5.1.2 Mitac

Although Mitac was more conservative in its investment and operating, the high growth rate in the 1980s still brought Mitac some syndromes. With the recession and ruthless information industry competition, Mitac suffered a great loss in 1992. It also stepped into a re-engineering stage from that time. A series of significant decisions were made by top management, including changing the traditional production system to modularised manufacturing system (MMS), setting up the Shunde factory in mainland China, improving marketing channels, dropping some people, re-building the leadership framework, and developing a network organisation around

³⁴From the collection of the speeches of Stan Shih.

the world. Besides, it changed its original strategy focusing on own brand products to focusing more strongly on OEM/ODM customers. Mitac accepted more big orders from OEM customers, especially Compaq, the top computer company in the world. In 1994 Mitac completed most of its re-engineering tasks and ramped up its infrastructure. It had achieved an economy of scale both in production and logistic distribution.³⁵ As its Vice Chairman said: "In 1994, we finished laying foundations for a strong global infrastructure."

The British operation was constructed at the end of 1988 and in 1992 it became an assembly centre in Europe. From its beginning as an assembly plant, it tried to implement the MMS model. The PC production line was designed as a modularised manufacturing system just as in Taiwan or mainland China. The British operation can order only some basic modules, then assemble them at the local plants. Its assembling plants need only some modularised assembly lines. According to local customer demand, it can only buy highly priced components such as CPU and hard disk etc. locally, and then quickly assemble them for their clients. Under this MMS model, the British operation can greatly decrease the inventory of highly-priced parts which are so volatile in cases of decreasing prices. Secondly, it can offer its local customers a response to different demand within a short time.

Under the MMS model, Taiwan Mitac supports all technical and quality service for overseas operations. The British operation can simply assemble its PCs and focus on marketing development. Its financial performance is better year by year and the inventory turnover has continually improved in the last five years (see Appendix 4). Compared to Acer's European operations, Mitac seems still to have made no significant inventory improvement in 1994. Some reasons could explain the results. First, the re-engineering of Mitac was slower than Acer's and some potential change may still not have been developed. Secondly, Acer's operations can get more support including those for technique, quality, and management from their regional headquarters, and regional headquarters can also more easily monitor its operations than can headquarters. Thirdly, because Acer has a bigger scale in the world than Mitac, it has a better opportunity to use the strategy of "global sourcing, local purchasing"; that means its headquarters could bargain for a good price and good terms with main component suppliers, then overseas operations could place the order and it could be delivered on time.

³⁵From Mitac minutes of the kickoff meeting, January, 1995.

9.5.2 Production-marketing Oriented Group: Tatung and Lite-On

Compared to Acer and Mitac, Tatung's and Lite-On's British operations are more production-marketing oriented. Their products have a stable and longer life cycle, and they have their own products and markets. Although they still need to get technical and engineering support from their headquarters, basically they have R&D departments and they have to develop the new product for themselves. The production management is as important as its marketing planning.

9.5.2.1 Tatung

From 1981, the British operation was designed like an independent and big company. It had a similar organisation to Taiwan's Tatung. Production and marketing are its two main functions. Although it can get some technical support from Taiwan's Tatung, basically, it has to develop its own products and customers.

In the British operation, except for the rewarding process, other processes are similar to Taiwanese operation. Production relevant departments participated more in the planning, organising, and evaluating process than did Acer's and Mitac's European operations. Its cost control was as important as its sales enforcement. Overall, its business orientation is very similar to its Taiwanese counterpart.

9.5.2.2 Lite-On

Before Lite-On took over the British operation in 1991, the company originally was a relatively independent power supplier company, and it owned its products and marketing. After Lite-On acquired the company, its system, personnel, and function were still maintained on its original lines, but it can now use the Lite-On brand and global marketing channels. Taiwan's Lite-On still retains its original British agent and rejects being merged into the British operation. The British operation needs to develop its products and customers by itself. Production and marketing are its main functions.

The British operation has a similar orientation to the Taiwanese operation. Because it lacks a strong impact from financial control factors, their management control systems still show obvious differences, but the business focus still affects its MCS, such as more participation, more documents and regulations, and more cost control in production relevant departments.

9.5.3 Summary and Discussion

Summary

Table 9.4 A Comparison of Financial Data of Case Firms in 1995

European operation	Sales per person (US\$)	Turnover rate (times)	Receivable collect (days)	1994 to 1995 growth rate	1992 to 1995 growth rate
Tatung	209,203	4.1	102.8	1.2%	34.0%
Lite-On	146,570	7.3	70.1	48.4%	71.5%
Mitac	#991,075	6.1	44.4	191.7%	511.0%
Acer					
Holland	2,410,038	11.4	39.9	34.5%	318.5%
Germany	1,158,406	8.1	38.9	40.0%	135.2%
Britain	707,298	7.8	42.2	92.6%	65.9%

(110,530,000 * 40.960 / 25.955) / (150 * .8 + 280 * .2)

As Table 9.4 shows, different financial characteristics existed between the production-marketing and marketing oriented groups. The production-marketing oriented group (the part in grey) shows lower sales per person, longer operating cycle (including turnover rate and receivable collection), and a lower growth rate. However, the marketing oriented group emphasises high speed and growth. Each operation maintains high sales per person, fast turnover on inventory and receivable date, and dramatic growth rate. In 1995, the sales of the Mitac British operation neared almost three times the sales in 1994 and the Acer British operation also nearly doubled its 1994 sales.

With the absolutely different financial characteristics, naturally, the two groups kept different focuses in their MCSs. As Table 9.5 shows, the marketing oriented group needed to proceed quickly in the planning process, flexibility of system, and giving more contingent rewards. The production-marketing oriented group needed a detailed process of objective setting and more participation than did the marketing oriented group. Also, they needed to keep more formal documents to regulate production processes and as a basis for feedback. The cost items were obviously analysed in a deep and detailed way. In addition, the marketing oriented group needed to have more motivation, and the variance of the contingent rewards between the two groups also reflected the situation and showed obvious difference. However, the contingent rewards between the Taiwanese and European operations in Acer and Mitac (marketing oriented group) were still far apart.

Owing to a tight control style Tatung had strong similarities of MCS components between its Taiwanese and British operations, but the same business focus between the two operations still played an important role, especially on the components in Table 9.5. In Lite-On, because it kept a flexible control style, many differences existed in MCS components between its Taiwanese operation and British operation, but the components of participation, formality, and feedback extent and

frequency were to some extent similar between the two operations. The factor of the same business focus between the two operations played an important role. As to Acer and Mitac, the MCS components described in Table 9.5 were more or less affected by different business focuses between their Taiwanese and European operations, but Mitac with a stronger financial control style was less different than Acer.

Table 9.5 A Comparison of MCS Components between Two Oriented Groups

Variable	Production-marketing orientation (Tatung and Lite-On)	Marketing orientation (Mitac and Acer)
Objective setting	<ul style="list-style-type: none"> • Focusing on integrated and detailed planning processes • More detailed budget analysis • Longer time in budgeting 	<ul style="list-style-type: none"> • Focusing on turnover and profit • Simplified budget as possible • Shorter time in budgeting
Participation	<ul style="list-style-type: none"> • Focusing on whole activities • Communicating between different functions 	<ul style="list-style-type: none"> • Focusing on sales planning • Market-driven participation
Formality	<ul style="list-style-type: none"> • Formal procedures, especially in production • ISO certification for high quality • More written documents 	<ul style="list-style-type: none"> • Maintaining informal and flexible procedures • Keeping a few written documents only • Easy to change regulations
Feedback extent and frequency	<ul style="list-style-type: none"> • Focusing on both producing and marketing activities • Tight cost control 	<ul style="list-style-type: none"> • Focusing on marketing activities and inventory control • Loose cost control
Contingent rewards	<ul style="list-style-type: none"> • Keeping stable pre-set salary and benefits • Fewer contingent rewards for managers 	<ul style="list-style-type: none"> • Managers' financial rewards increased as they had good performances • Managers had more bonuses

All in all, the proposition could be broadly accepted by the research, especially the components of objective setting, participation, formality, feedback extent and frequency, and contingent rewards. The same orientation may easily push their system in the same direction. The factor of business focus was an important moderating variable between the relationship of the financial control style and the uniformity of MCSs.

Discussion

Many prior researchers emphasised that an organisation should fit its environment (Child, 1972; Simons, 1990; O'Reilly III, 1991; Kay, 1993; Wright et al., 1994, Punnett & Shenkar, 1994). Companies focusing on marketing increase their uncertainty and dynamism which leads to an increase in non-financial data (Gordon & Miller, 1976), frequency of reporting and level of aggregation (Waterhouse & Tiessen, 1978), and a simple system model (Evan et al., 1986). Different orientations represent different strategies in a multinational firm. Many researchers (such as Govindarajan & Gupta, 1985; Snodgrass & Grant, 1986; Govindarajan, 1988; Govindarajan & Fisher,

1990; Simons, 1990; Daniel & Reitsperger, 1991) found a close relationship between strategy and the control system. In this research, the four case firms could be classified as having two orientations, and they were significantly different on the components of objective setting, participation, formality, feedback extent and frequency, and contingent rewards. The findings of the research are consistent with the prior research noted above.

9.6 Summary

Four situational factors - size, age, approach to acquisition, and business focus in European operations were observed in the research. As a result, significant impacts from the factors of size and business focus were found. Different operational size obviously resulted in the development of different MCSs, especially on the variables of objective setting, participation, formality, and feedback extent and frequency. A larger operation in Europe easily followed its MCS from its Taiwanese operation.

Different business orientations naturally produced different MCSs, especially on the variables of objective setting, participation, formality, feedback extent and frequency, and contingent rewards. For a European operation, the greater the similarity in the direction of business focus to its Taiwanese operation, the greater the similarities between the two operations.

As to age, no obvious evidence in the process of MCS transfer was found, and the research proposition could not be accepted. The method of acquisition could be important for a new operation in the initial stage, but with cross-sectional research it is difficult to make a completely longitudinal observation. From interviews in the research, more cultural conflicts were found in the early stage under the purchasing approach, but no evidence was found from the interviews that the uniformity of MCSs under the purchasing approach was greater than under the greenfield approach.

This research has discussed the relationships of the uniformity of MCSs and relevant elements, including national culture, financial control factors, and situational factors. Each element had its impact on the transference of MCSs within a multinational firm. Integratedly, the element of national culture is still important in the uniformity of MCSs between the Taiwanese and European operations within the case firms, but the financial control style plays an important role in the transference of MCSs. As to the situational factors, they have been shown as significant moderating variables in the process of MCS transfer.

10. Summary and Conclusions

- 10.1 Summary of the Thesis
 - 10.2 Contributions
 - 10.3 Managerial Implications
 - 10.4 Limitations
 - 10.5 Suggestions for Further Research
 - 10.6 Epilogue
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First, this chapter will briefly summarise the objectives and findings of this research. Then the contributions and managerial implications of the research will be discussed. Further, some limitations in methodology will be assessed and the suggestions for future research will be provided.

10.1 Summary of the Thesis

10.1.1 Research Purposes and Propositions

With increasing business globalisation, it is becoming an increasingly important issue to MNCs to consider the feasibility of transferring management control systems (MCSs) across borders. If the managerial approach is regarded as science (Koontz 1969: 417), or the standardisation of managerial technologies and strategic recipes (Whitley, 1994: 106), why cannot the managerial control system be transferred abroad? If the MCS is regarded as an internal system in a MNC, there is no reason to doubt the transferability of MCS, at least on the level of the theory, principle, and framework of the MCS. However, many cultural researchers keep a different view. Management theory and principles are not applicable in materially different cultural environments (Crozier, 1973; Negandhi, 1975; Whitley, 1994; Chow, Shields, and Wu, 1996; Koontz 1969; Stening, 1979; also see Frucot and Shearon, 1991). Cultural interface can occur between the management of the subsidiary and that of the parent company. On the other hand, many researchers (such as Child, 1972; Gordon and Miller, 1976; Govindarajan, 1986; Gresov, 1989; Abernethy and Stoelwinder, 1991; O'Reilly III, 1991; Kay, 1993; Wright et al., 1994; Punnett and Shenkar, 1994: 41) participated in research into contingency theory. A great number of contingent variables are selected in the cross-border comparative research. Under this approach, optimal MCSs depend on the relevant elements of a firm's environment, and cultural factors are embedded in different contingencies.

To explore the reality of the transference of management control systems in multinational firms, the research covers the elements of national cultural factors, financial control factors, and situational factors. If culture matters, an organisation's policies can lose their effectiveness when its cultural environment changes (Hofstede, 1980). If national cultural factors are important, then a "fitting" policy to overseas operations may be better than a "shared" policy. The corporation would consider the host national culture and situation to adjust its MCSs in foreign operations. In contrast, if national cultural differences are minor factors, then headquarters can more easily transfer its system to its foreign operations. In total, four research purposes as follows were included in the research:

1. To compare the MCSs between Taiwanese and European operations within the case firms and to find which components of MCSs of European operations are affected by local culture.
2. To examine the relationships between national culture and financial control factors.
3. To explore how the financial control style of the senior managers at headquarters affects the MCS transfer between the Taiwanese and European operations in the case firms.
4. To explore the relationships between other situational factors and MCSs of the case firms.

Bearing in mind the above purposes, four important propositions were established as the basis for the research. Proposition 1 was set to explore the relationship between host national culture and host MCSs. A cross-cultural pair-comparison between European operations regarded as the host country and Taiwanese operations seen as the home country was made. Following in the steps of the culturalists, Hofstede's cultural dimensions were used firstly to compare MCSs within a MNC. Proposition 2 was set for examining the relationship between the national culture of the home country and financial control factors. Hofstede's cultural dimensions were used to examine the relationship between the two elements. Proposition 3 was designed to examine financial control factors as dynamic variables to see how they affect host MCSs. Within the context of different financial control styles, the extent of uniformity of MCSs was examined. The final research proposition was set to examine the impact on MCS transfer arising from other situational factors. Four relevant situational factors were examined in the process of MCS transfer.

10.1.2 Research Results

10.1.2.1 Cross-cultural Comparisons

In regard to proposition 1 (see Table 10.1), which contains ten components in the cycle of MCSs, the components of objective-setting, short-term and long-term planning, contingent rewards, group rewards, and long-term rewards are supported by the research. However, the components of participation, decentralisation, formality, controllability-filters, and feedback extent and frequency are rejected. The comparison showed that the planning process and rewarding process are more affected by national culture than the organising process and evaluating process in the case firms. In comparing the components of MCSs between Taiwanese and European operations, strong interactions between the factors of area and company were found in the planning and rewarding processes. In the sub-proposition of the component of contingent rewards, the research results emphasise social and political factors rather than Hofstede's cultural dimensions. The rewarding process seems unpredictable by reference to Hofstede's cultural dimensions only and this result is consistent with that of earlier researchers (e. g., Chow et al., 1991; Vance et al., 1992; Chow, Kato & Shields, 1994; Merchant et al., 1995; also see Harrison and McKinnon, 1996, 51-53). In addition, the rewarding process is also affected by leaders' style and situational factors. Different forms of reward exist in different case firms. The effects of each of the various reward forms vary depending on managers' personal tastes and circumstances (Emmanuel, 1990: 267). With the exception that the component of contingent rewards is significantly influenced by social and political factors, other components rejected by the research have a significant relationship with leadership factors and situational factors. Within a MNC, national culture may often be embedded in relevant contingencies.

Table 10.1 Summary Results of Proposition 1

Components	Tatung	Lite-On	Mitac	Acer	Supported or rejected
Objective-setting	√	√	√	√	Supported
Participation	?	X	X	X	Rejected
Short-term and long-term planning	√	√	√	√	Supported
Decentralisation	X	X	X	X	Rejected
Formality	?	X	X	X	Rejected
Controllability-filters	?	X	X	X	Rejected
Feedback extent and frequency	?	X	X	X	Rejected
Contingent rewards	√	√	√	√	Supported
Group rewards	√	√	√	√	Supported
Long-term rewards	√	√	√	√	Supported

Note: √: Consistent with predicted direction

X: Not consistent with predicted direction

?: Strongly similar and difficult to decide the direction

In the examination of the individual case firms, different patterns of similarities and differences of MCSs between the Taiwanese and European operations were revealed. Tatung showed a strong similarity between the two operations, Acer and Lite-On had strong differences, and Mitac was in the middle. Under the environment of the same cultural geography, clearly, the different patterns come from different leaders' financial control styles and situational factors.

10.1.2.2 Leaders' Financial Control Factors and MCS Design

Through in-depth interviews at the cases' headquarters and checking at the sites of their operations, some significant operating philosophies were found and all of them seem to have a strong relationship with leaders' financial control factors. The research chose three leadership factors, namely degree of control, budget emphasis, and selection of managers, to identify different financial control styles in the case firms.

Proposition 2 representing the relationships between national culture and financial control factors was examined first, but these relationships were not strong in the research. That means the leaders' financial control factors are influenced more by the leader's philosophy than by national culture. As a result, three sub-propositions (see Table 10.2) representing three relationships between leadership factors and national culture could not be accepted by the research. The financial control factors seem to have a deep relationship with leaders' operating philosophies.

Table 10.2 Summary Results of Proposition 2

Sub-propositions	Tatung	Lite-On	Mitac	Acer	Supported or rejected
2-1: High degree of control	√	X	√	X	Rejected
2-2: Low budget emphasis	X	√	X	√	Rejected
2-3: In-group in the selection of managers	√	X	√	?	Rejected

Note: √: Consistent with predicted direction
 X: Not consistent with predicted direction
 ?: Difficult to decide the direction

Further examination of proposition 3, the relationship between leaders' financial control style and the uniformity of MCSs, showed a strong relationship (see Table 10.3). With the exception of the factor of budget emphasis which in some case firms had weak support (supported in the components of long-term and short-term planning and feedback extent and frequency), the factors of the degree of control and the selection of managers had strong support in the research. Overall, except for the

rewarding process, the values of leaders' financial control factors had obvious impacts in the process of the transference of MCSs.

Table 10.3 Summary Results of Proposition 3

Propositions	Tatung	Lite-On	Mitac	Acer	Supported or rejected
3: Financial control factors (styles) significantly influence the uniformity of MCSs	√	√	√	√	Supported (excluding rewarding process)
3-1: Degree of control and the uniformity of MCSs	√	√	√	√	Broadly supported (excluding rewarding process)
3-2: Budget emphasis and the uniformity of MCSs	√	?	?	?	Only a few variables are supported
3-3: Selection of managers and the uniformity of MCSs	√	√	√	√	Broadly supported (excluding rewarding process)

Note: √: Consistent with predicted direction

?: Except for a few components, most components are not consistent with prediction

10.1.2.3 Other Situational Factors and MCS Design

For comparative purposes, this study not only controlled for the contingencies of industrial environment and technical considerations by selecting the IT industry only, but also selected comparative pairs within the case firms as carefully as possible. In addition, four situational factors including size, age, approach to acquisition, and business focus were observed in the research. Proposition 4 assesses whether these factors will significantly affect the transference of MCSs from Taiwanese operations to European operations.

Table 10.4 Summary Results of Proposition 4

Propositions	Findings	Supported or rejected
4-1: Size of operation	A larger operation in Europe easily followed its MCS from its Taiwanese operation, especially for the components of objective setting, participation, formality, and feedback extent and frequency.	Broadly supported
4-2: Age of operation	No obvious evidence in the process of MCS transfer was found	Rejected
4-3: Approach to acquisition	More cultural conflicts were found in the early stage under the purchasing or merging approach, but no evidence was found when the interviews were carried out in their firms that the uniformity of MCSs under the purchasing approach was greater than under the greenfield approach.	Rejected
4-4: Business focus	The greater the similarity in the direction of business focus to its Taiwanese operation, the greater the similarities between the two operations, especially for the components of objective setting, participation, formality, feedback extent and frequency, and contingent rewards.	Broadly supported

Four sub-propositions (see Table 10.4) about the above factors in the research were examined. As a result, significant impacts on the factors of size and business focus were found, but no evidence of significant impact was found on the factors of age of operation and approach to acquisition. With the volatile characteristics of the IT industry, situational contingencies still play important roles in the transference of MCSs within a MNC.

10.1.2.4 Research Framework Generating

The research framework in Figure 2.2 presented in chapter 2 provided an exploratory basis for the research. According to this framework, four research propositions were put forward for a series of qualitative analyses and examinations. As a result, in addition to the proposition concerning the relationships between national culture and financial control factors, three other propositions including the relationships between the uniformity of MCSs and three elements, including national cultural factors, financial control factors, and other situational factors, could be more or less supported. Each element not only played a determinant role in the transference of MCS, but also showed a close relationship with other elements. Combining the findings of these three elements, a comprehensive analytical framework of national culture factors, financial control factors and situational factors can be used to better understand and explain the cross-border transfer of MCSs. The framework can help to explain why one MNC could transfer MCSs more easily than another MNC. Thus the exploratory research framework proposed in chapter 2 would seem to provide a useful basis for further research.

Three meaningful results in the framework were found in the research. Firstly, the components in the planning process including objective setting, participation, and short-term and long-term planning, obviously have more complicated relationships among the three elements in the transference of MCSs in multinational firms. Almost every element has a strong role in the transference of the components of the planning process. Secondly, a somewhat complementary relationship exists between the elements of cultural factors and financial control factors. The stronger the impact of financial control from the corporate centre, the less the impact from cultural factors; and vice versa. The element of financial control factors represents a managing value, and the element of national cultural factors symbolises a cultural value. The more managing values are involved, the more the uniformity of MCSs; conversely, the more cultural values are respected, the less the uniformity of MCSs. In this research, five out of the ten MCS components could be supported in the proposition of national

culture. The components of the rewarding process, including contingent rewards, group rewards, and long-term rewards, were obviously influenced by the element of national culture of the host country. As shown by Tayeb (1988: 150), reward and punishment policies are associated with cultural factors. Of course, the elements of financial control factors and situational factors could also affect them, but only as minor elements. However, the components of objective setting and short-term and long-term planning showed some wide variance between the case firms. Lite-On and Acer having less financial control from their headquarters showed more cultural differences than Tatung and Mitac. Thirdly, the element of situational factors represents objective terms favouring the uniformity of MCSs. Each situational factor represents an objective term and has its different impact on the components of MCSs, such that only the business focus could affect the contingent rewards. So different situational factors have different impacts on the uniformity of MCSs in each case. The more favourable the objective terms together, the more MCS transfers will happen. They act as important moderating variables between the relationships of financial control style and the uniformity of MCSs. The research found that the factors of size and business focus had a significant influence on the uniformity of MCSs, especially on the planning and organisational processes.

Different patterns organised by the three elements existed in the different case firms. The four case firms in the research all maintained traditional European rewarding systems in their European operations. National culture seems a critical determinant in the rewarding process. As to other processes, the stronger the leaders' financial control style in a MNC, the more the MCSs were transferred to its overseas operation, and vice versa. The stronger the financial control style in a MNC, the weaker the impact of MCS transfer from host cultural factors, and vice versa. The sequence of the spectrum from high to low of the extent of financial control in this research is Tatung, Mitac, and then Acer and Lite-On. The uniformity of MCSs between the Taiwanese and European operations of the case firms is also consistent with the sequence. In addition, the more favourable the situational environment in a firm's overseas operation, the more the MCSs could be transferred to the overseas operation. Tatung's European operation offered the most favourable situational environment to follow its Taiwanese operation's MCSs, then Lite-On, and then Mitac and Acer. The case firms organise their MCSs under a complex interaction between the three elements. Tatung has a tight financial control style and favourable situational environment for the uniformity of MCSs, so it easily transfers its MCSs to the British operation, especially the components of the planning process, organising process, and evaluating process. However, in the rewarding process Tatung seems to maintain the traditional British system. Mitac still has a powerful control style, but compared to

Tatung it is more moderate and it shows greater consideration of local culture. However, it faces an unfavourable situational environment in MCS transfer, so when building its British operation' MCSs Mitac needs to consider situational factors more. Acer's MCSs are structured between the elements of cultural factors and financial control factors, and it also faces an unfavourable situational environment but the extent is less than in Mitac. Lite-On shows a flexible financial control style. and its MCSs are structured between the elements of cultural factors and situational factors.

Comparison between the extent of MCS transfer in the European operations among the four case firms seems easier because the cultural factor appears to be controlled. The elements of leaders' financial control factors and other situational factors become important. However, as Acer's European RBU covers three countries and the other firms in Europe operate only in Britain, Acer clearly faces more complicated cultural problems than the other firms. Table 10.5 summarises the impacting result of each element on each firm, and links the ranking of the uniformity of MCSs in reality. In the same European cultural environment, the element of leaders' financial control style becomes the primary determinant in the comparison. Each case will be discussed further as follows.

Table 10.5 Application of Research Framework in Case Firms

Cases' European operations	Financial control style	Situational factors	Cultural exposure in Europe	Ranking in the uniformity of MCSs
Tatung	Tight	Favourable	Less exposure	1
Mitac	Medium	Unfavourable	Less exposure	2
Lite-On	Flexible	Medium	Less exposure	3
Acer	Flexible	Unfavourable	More exposure	4

The research framework was applied in the case firms and the results not only could show the influences from the different elements but also would appear to reasonably reflect the transference in practice.

10.2 Contributions

This research makes several contributions to the literature on data access, identifying variables, generating different analyses in cross-border comparative research, and the development of a research framework.

10.2.1 Data Access

The research covered interviews at both headquarters and at operational level in each case firm. This is the first comparative research on the transfer of MCSs between Taiwan and Europe. In total, 74 managers agreed to an in-depth interview. In each case firm, the Chairman of the Board or President, Controller or Chief Financial Manager, Managing Director or Director of Operations, and the operations' Chief Accounting or Financial Director all participated in the research interviews. Some were very difficult to access, especially their leaders. The leaders of three firms and president of one other participated in the research, as it is very important to probe their operating philosophies and management thinking. In the European operations in addition to interviewing Chinese managers, the research also covered many senior local European managers. It is important to understand whether their perceptions are consistent.

10.2.2 Identifying Variables

The research identifies valuable leaders' financial control and situational variables which have close relationships with MCS transfer. Leaders' financial control styles are generated by evaluating three financial control factors, including degree of control, budget emphasis, and the selection of managers, which represent decision-making power, financial control, and human resources management respectively in a firm. The results could clearly identify different control patterns in the case firms. Of the other situational factors, except for the general variables of size and age of operation, the variables of approach to acquisition and business focus are initially considered in the research. In addition, following the steps of previous researchers the ten MCS components are included in the research. In particular, some situational variables, e. g., approach to acquisition and business focus, came from initial field work. This knowledge can also act as a reference on MCS design for their overseas operations for senior managers at headquarters. Some valuable findings will be discussed further in the section on managerial implications.

10.2.3 Generating Different Analyses in Cross-border Analysis

The research explored MCS transfer within MNCs from three aspects: national culture, leaders' financial control factors, and situational factors. The research firstly used Hofstede's cultural dimensions as a static analysis to analyse the similarities and differences between Taiwanese and European operations. Then leaders' financial

control factors were used as a dynamic analysis to probe their influences in the process of MCS transfer. Essentially, corporate culture and operating philosophy are embedded in leaders' financial control factors. Different patterns of leaders' financial control styles could also reflect different corporate cultures and philosophies in the case firms. Finally, except that some contingencies have already been controlled by the research, other situational factors were used as a contingent analysis to find their objective influences from the environment in the MCS transfer. The main purpose of using different analyses in the research is to explore the reality of MCS transfer in MNCs.

10.2.4 Development of the Research Framework

Owing to the dearth of literature on MCS transfer within MNCs, the research could discover only piece-meal literature from relevant cultural and contingency research. No comprehensive or integrated framework about MCS transfer was found in the literature. However, some linkages between different elements were identified and a research framework of MCS transfer was developed for exploration in this research. The framework comprises a close relationship between the elements of national culture, leaders' financial control factors, and other situational factors. The framework reflects a complementary relationship between the element of national culture and leaders' financial control factors, and it shows a contingent character which means "no best system" for MCS design or transfer. As the last chapter shows, three elements determine to what extent MCSs will be transferred in practice in the case firms.

10.3 Managerial Implications

The research findings can provide a number of implications for MNCs' managers on the MCS design in their foreign operations. Although this research focuses only on the areas of Taiwan and Europe, insights about MCS design or transfer within MNCs can still offer managerial inferences for other countries and areas. The major managerial implications here are (1) importance of "financial control style", (2) matching local situations, (3) keeping balance between relevant elements, (4) continuously improving MCSs, (5) localisation as early as possible, and (6) improving international human resource management (HRM).

10.3.1 Importance of "Financial Control Style"

Different financial control styles generating from the leaders' financial control factors represent different firms' managing values, and they significantly impact on the policy of MCS transfer or design. The tighter the degree of leaders' financial control the more the MCSs are transferred, and vice versa. At the same time, the tighter the degree of leaders' financial control in a MNC the lower the impact from local cultures when MCS transfer or design is considered, and vice versa.

From the analysis of individual leaders' financial control factors, the research finds that the selection of managers is an important factor of MCS transfer or design. Those firms with more in-group managers more easily maintain a similar system. Expatriate managers play bridging roles and naturally transfer some MCSs to overseas operations. The research found that those firms with more expatriate managers have more transference of MCSs. The factor of degree of control also significantly influences MCS transfer or design. The higher the degree of control the more the similarities of MCSs, and vice versa. Those firms with a higher degree of control at headquarters easily regulate some uniform systems for their foreign operations. As to the factor of budget emphasis, a weaker relationship with MCS transfer or design was found in the research. Compared to the former two factors, it is only a minor factor.

10.3.2 Matching Local Situations

Designing MCSs of overseas operations must leave enough room for local situations. As the situations mentioned in chapter 9 show, different local situations need different considerations in MCS design. As shown by a great number of experiments, the factor of size significantly affects the transference of MCSs. Small operations (such as Acer's, Lite-On's, and Mitac's European operations) keep less formality and more flexibility (especially on the MCS components of objective setting, participation, formality, and feedback extent and frequency) than large operations (such as Tatung's European operation). Another significant factor is the business focus. Different business orientations designed under global co-operative strategies need to follow different MCSs. When a European operation (such as Tatung's European operation) retains the same business orientation as its Taiwanese counterpart, it is easier to use a similar system between them. On the contrary, if a European operation (such as Mitac and Acer) has a different business orientation from its Taiwanese counterpart, it is difficult to keep a similar system between both operations, especially on the MCS components of objective setting, participation, formality, feedback extent and frequency, and contingent rewards. In addition, other

local situations, such as age of operation, approach to acquisition, also have some impact on an operation's MCS design.

10.3.3 Keeping Balance between the Three Elements

Transferring or designing MCSs for overseas operations calls for a balance between national culture, leaders' financial control factors, and situational factors. When a MNC designs its MCSs in overseas operations, it is very important to realise completely its financial control style, host country culture, and local situation contexts. Some components may easily be affected by specific elements, but it is possible for some components to be affected by multiple elements. No "best system" exists for MCS transfer or design, but keeping a balance among the three elements can be regarded as a rule of thumb. A basic common MCS framework as "internal isomorphism" to all operations seems very important to a MNC. However, owing to different local cultures and situational factors, keeping relative flexibility in MCS design is still necessary. The dilemma could be solved by clearly defining MCSs between the global corporate level and the level of local operation (Ferner, 1996: 20).

10.3.4 Continuously Improving MCSs

Although all the chosen case firms are big global manufacturing companies in Taiwan, most of their MCSs are still in the preliminary stage. No matter whether on the global corporate level or operational level, clear and integrated MCS definitions within the firms are still very few. Remaining flexible on control systems and depending on managers are very popular in case firms. Strictly speaking, they are all in the learning stage and still lack very good MCSs. When interviews were conducted at each site, many managers, especially financial managers, were very dissatisfied with their MCSs, especially in the European operations. It seems to hint that their managers have a strong desire to expect a better setting of MCSs. Although organisations in fast-growing technologies should emphasise cultural or clan forms of control (Ouchi, 1992: 79), however, for information and management reasons, it seems necessary for each firm to improve their MCSs continuously. In addition, clearly defining the relationship between headquarters and operations and designing a global basic framework of MCSs seem very important to the case firms. With globalisation increasing, top managers need to consider changing their MCSs to cope with strong competition.

10.3.5 Localisation as Early as Possible

The research found no significant relationship between the age of operation and MCS transfer. With time passing, the cultural conflicts between local and expatriate managers may decrease, but the effect of the MCS transfer seems not to have obviously increased with the passing of time. The research found almost all MCSs and the structure between expatriate managers and local managers are similar at their start. With the quick growth of business, those firms with more expatriate managers from Taiwan find it is more difficult to replace them with local managers.

Complete localisation in IT firms seems not to be a good policy. The research found that keeping a few expatriate senior managers in technical, logistic, and financial areas, or a managing director in overseas operations, seems still a good policy for IT firms, especially in the early stages. Compared to Lite-On which has no expatriate manager in its European operation and Tatung in which expatriate managers take all the senior positions in its European operation, Acer and Mitac seem to keep a neutral policy under which only a few critical senior managers are expatriate managers in their European operations. Comparing both the growth rate and profitability in the cases' European operations, Acer and Mitac were also better than Lite-On and Tatung (see Appendix 4). Reliance on too many expatriate managers not only costs more money but also hampers the goal of globalisation. It is important to consider the extent of localisation as early as possible and to execute a strategy from the beginning.

10.3.6 Improving International Human Resource Management

When the interviews were conducted in the case firms, different common identities of corporate management and MCSs were often found between local managers and expatriate Taiwanese managers. Strictly speaking, these case firms lack international HRM. Expatriate managers travel one way, from Taiwan to European countries only, and there are no career planning opportunities for local managers.

Expatriate managers are very important bridges in those cross-national isomorphism MNCs and in those local isomorphism MNCs. Taiwanese IT firms send expatriate managers to overseas operations intending to fill specialised positions only. As a result, these expatriate managers lack the function to create a "verbal information network (Edstrom and Galbraith, 1977: 249)." At the current stage, "compatible managers (Wright et al., 1994: 222)" in a case firm seem hard to find. These case firms need to improve their HRM and establish an international HRM strategy. The transfer of managers is not only to fill positions, but also to develop managers and

develop an integrated organisation (Child, 1973: 3; Edstrom and Galbraith, 1977: 252-253). An integrated and long-term international HRM strategy should be established for expatriate managers within the case firms.

10.4 Limitations

In addition to the possible biases in chapter 3, some limitations of the research will now be discussed.

10.4.1 Narrow Research Territories and Small Samples

Limited by time and funds, the research could choose only to observe and compare the MCSs between the European and Taiwanese operations within the case firms. The approach may be convenient for exploring factors affecting MCS design from the dimensions of national culture and local situational factors. It is also helpful to observe deeply the process of MCS transfer. In addition, its results are convenient for comparisons to be made and its theory also easy to apply in the case firms. However, from the view of a MNC the research limits its attention to one part only of firms' business geography. It is very difficult to get an overview of firms' integrated corporate culture and global strategies. If the effectiveness of MCS transfer and the relationship between the strategy of MCS transfer and performance measurement could be based on the whole firms' business, the results should be more meaningful to its top management. Of course, it costs a large amount of money and time to collect samples and data.

10.4.2 Limited to IT Industry

For ease of comparison, this research chose case firms from the Taiwanese IT industry. Because case firms in the same IT industry have similar environmental and technical factors, some significant contingencies are controlled for in the research. As a result, contingent variables in the research are greatly decreased and a simple explanation of the framework becomes possible. However, when the theory and framework of the research are applied to different industries, environmental and technical factors should be carefully considered.

10.4.3 Emphasis on Formal MCSs

This study focuses on the transference of formal management control systems. Following the cycle of management control systems, the research chose critical components for observation. However, during the field work of the research, some transference out of the domain of formal MCSs was found. These mechanisms include general control style by top management, informal control systems, and organisational framework. Some case firms have transferred many mechanisms from Taiwan, but among them only a few formal MCSs. For example, Acer has transferred its client-server organisational structure, production flow, persuasive management style, and flexible procedure control to its European operations, but only a few components of formal MCSs were found. That means the findings of the research still could not represent the phenomena of the transference of whole management systems.

10.4.4 Cross-sectional Analysis

Although some events or facts have been discovered as far as possible in the interviews of the research, essentially this research is still a cross-sectional analysis. This cross-sectional analysis, like a single snapshot, cannot offer chronological and systematic observations. Its main disadvantage is that it cannot provide a set of situations in a firm to probe "why and how" problems. As a result, the approach could not follow changes in time to observe the process of transfer and most findings in the research can only represent the reality when the field work was conducted.

10.4.5 Selection of Variables

The research is structured on the basis that the MCS transfer is a function of the elements of national culture, leaders' financial control factors, and other situational factors. Most variables of these elements were obtained from the literature before the field work, but a few variables were identified from in-depth interviews. The dilemma of the research is how to keep the balance between the number of variables and the relevance of the research. It is impossible to exclude any extraneous variable in the causal relationship, and other variables which have not been identified in the research or their accumulated impacts may affect the causal inference. However, the basic causal inference based on prior theories was established first, and then it was assessed by comparative case studies. The causal relationship between MCS transfer and relevant variables can be reasonably validated.

10.4.6 Interviewer Judgements

The researcher has kept an objective and cautious manner in the collection and assessment of evidence. Throughout the interviews, sensitive follow up questions were included and further questions probed for clarification of doubtful issues. Different questions were prepared to interview different functional managers, but each question was repeated at least once to different managers. For some important questions, a cross-checking interview between headquarters managers and operational managers was designed. Interview data were transcribed verbatim. Analytical items were sorted from data bases as far as possible and a cross-checking between different components or elements was used. However, it must be recognised that the results are limited by the subjective judgements made by the researcher in the data analysis and classification process. Reality must be interpreted by the researcher, and thus, case studies represent interpretations of the social reality. There can be no such thing as an "objective" case study (Ryan et al., 1992).

10.5 Suggestions for Further Research

The research has disclosed many findings on the relationship between MCS transfer and three elements. However, much remains unknown and some limitations of the research still need to be removed. A number of opportunities and directions exists for future research.

10.5.1 Covering More Territories within the Case Firms

If possible, a comparative study will be made in the future to cover more business territories or even all territories within a case firm. This study will be valuable in relation to the present research. The topics for such a study will include firm's culture, operating philosophy, or global strategy in the framework of MCS transfer. The result can more substantially and comprehensively demonstrate the above characteristics of the case firms. It can also serve as a better basis for comparing case firms more objectively. With the territories of firms' operations increasing, the impacts from the elements of national culture, leaders' financial factors, and situational factors are becoming clearer.

10.5.2 Longitudinal Research

The business situation will change from time to time. Naturally internal systems such as MCSs are easily changed in time to match environmental necessity. Longitudinal research can observe a set of relevant cases for a long time. As a result, it

is easy to compare cases within a firm, and the effectiveness of relevant events that happen also can be easily observed and measured.

Owing to limited resources, this research chooses cross-sectional analysis to analyse relevant data. Although the research tried to unveil more historical data, managers' memories seem to retain only limited facts with weak reliability. Lacking the "time dimension", the research could not compare historical cases one with another within a case firm. In the findings of the research, the rewarding and planning devices, especially rewarding devices, were found to be very changeable. A longitudinal research approach seems a better approach to improve research quality in this regard.

10.5.3 Considering Other Variables

Three important elements are contained in the research. In the element of national culture, Hofstede's cultural dimensions were chosen in the framework; leaders' financial control factors were emphasised, those variables representing the leaders' financial control style; and four contingent variables were selected as other situational factors from the literature and the field work of the research.

The variables in each element may be added to or substituted for, and different results may be the outcome. Hofstede's cultural dimensions may be replaced by other cultural dimensions or attributes. In addition, leaders' financial control and other situational factors can also be easily added or substituted for different factors. The results may be different and could also provide interesting comparisons.

10.5.4 Different Industrial Settings

As the case firms of the research are chosen from the IT industry, contingencies in different industrial settings are ruled out in the research. The research framework is suitable only for investigations into the same industry. However, different industrial settings may have different phenomena in MCS transfer. Different contingencies in environments and techniques should be considered when comparing industries. In other words, more contingencies may need to be considered when the framework is applied to cross-industry comparisons.

10.5.5 Thinking About Other Control Mechanisms

This research emphasises formal MCSs, mechanisms for middle management to achieve a firm's goals and to use a firm's resources effectively. Actually, except for

formal MCSs, a company's control systems cover other control mechanisms, such as control mechanisms at top management level, informal control mechanisms, value controls, and operational controls at the basic management level. Some facts of transference in other control mechanisms were found during the field work of the research. To understand the transference of whole control systems within a MNC researchers need to think about other control mechanisms also.

10.5.6 Exploring the Relationship between Firm's Strategy and MCS Transfer

The purpose of strategy, just as for MCSs, is to achieve a firm's goals, so theoretically they have a close relationship. A few facts about the relationships between global strategies and MCS transfer or design were found in the research. Different extents of MCS transfer in different areas or countries were found in some case firms in the research. In addition, the definition of overseas operations in global competitive strategy has also a significant impact on an operation's MCS transfer or design. However, this subject seems a very interesting area for future researchers.

10.5.7 Measuring the Effectiveness of MCS Transfer

This research emphasises why MCSs can or cannot be transferred and what elements could affect MCS transfer. Although some financial data of the case firms' European operations are explained in the research, essentially this research does not cover measurement of the effectiveness of MCS transfer. However, measurement of the effectiveness of MCS transfer and the relationship between performance and MCS transfer are very important areas for future research.

10.6 Epilogue

This research is devoted to exploring the transferability of MCSs in MNCs. Three important elements are found and an integrated framework has been developed to elucidate the relationship between MCS transfer and these three elements. Although the element of national culture is still important in MCS design and the element of situational factors is also significant, the element of leaders' financial control factors is found to be the critical element in the process of MCS transfer or design. The leaders' financial control factors depend on the human qualities of the leaders, on their ability to adapt and change cultural and situational factors. In other words, leaders have the main roles in the process of MCS transfer or design.

Some mysteries found during the field work of the research still remain in the researcher's mind. For example, in one of the case operations in Britain, long-term losses under a series of local managing directors, could be turned over to become a profit-making company within one year, given a new Taiwanese managing director. In the interview, of course, he listed a series of his great strategies on competition and some of his revisions of MCSs. Does success come from better MCSs, economic growth, excellent leadership, or all three? Is it possible for leadership to have such great power?

One power-supply company in Britain, owing to the suffering of long-term losses, was purchased by one of the case firms in 1991. Since that time the operation has enjoyed complete localisation. British managers took control of the firm, but it still suffered continuous losses. When interviews were conducted there, its top managers explained that the losses resulted from the existence of the old corporate culture and the lack of motivation. Does the failure come from its old culture, motivation system, or an incompetent management team? Is it too difficult to change its old corporate culture? In fact, its parent company is a very successful IT firm in Taiwan. Is it possible for it to become a very successful company within a short time just by changing its top manager?

Another British operation with better MCSs and strong corporate culture from its parent company was a profitable company in the 1980s, but it suffered losses in the last five years. Its senior managers explained that because of the increment in workers wages they transferred their parts manufacturing to an Asian country before 1991. However, the company still continued to suffer serious losses. A review of its financial data revealed low sales growth, a long operating cycle, slow inventory turnover rate, and huge administrative expenses and interest charges. Where does the power of strong corporate culture exist? What is the function of MCSs? Is it possible to become a profit-making company by adjusting the management team?

One case firm uses a global management reporting system based on its strategic factors to manage its global operations' success. Its operations' managers quickly and efficiently follow the policy. A good control mechanism seems not so difficult to apply. Sometimes, culture seems not to be an important factor and culture may become a good excuse for some managers. Interviews with many successful managers in the research showed that cultural factors seemed not to be their main consideration. Does culture become unimportant? Or do smart managers successfully use the advantages of culture?

One of the case firms successfully uses its global organisation, marketing channel, logistic design, and product brand to increase its competitive capacity. It also smartly uses many slogans to elucidate its corporate culture and long-term visions.

However, it obviously lacks good MCSs in its overseas operations. In addition, its MCSs are developed almost by their operations' financial managers themselves and there are great differences between its operations. Obviously, its MCSs are not good as its operating results show. Is the importance of MCSs not as described by the textbook? Why should an intelligent leader give so little attention to MCS design?

Objectively speaking, cultural differences and situational factors actually surround an operation, and a great deal of research supports those facts. However, a good manager can make a choice and turn the seemingly uncontrollable into the controllable. He can modify his strategies and tactics in accordance with cultural and situational factors. MCSs can be a powerful guarantee of achieving a company's objectives, if his subordinates can contribute their energies to the system. A good manager will try to know his company and competitors so he can be successful in marketplaces with no danger of defeat. Of course, "it is easier to acquire a large troop with thousands of soldiers than a good general" (Sun Tzu's, *The Art of War*). A leader should have confidence in his subordinates and delegate them enough power to carry out their assignments. Then these subordinates should be efficiently trained to become good managers. Cultural and situational factors sometimes are more complicated than thought, but an intelligent manager can sort them out. How to balance leadership factors with cultural and situational factors seems not to be a difficult problem to a good leader.

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Appendices

Appendix 1 Interview Questions

Interview I: Headquarters Senior Managers

1. Degree of Control

Interview Content	DP	CA	OS	OM
How do you use management control systems to manage the whole company?	X	X		
How do you convey the company policy and operating philosophy to the operations' managers?	X			X
Does your company have a clear decentralised decision making system? How do you decentralise?	X	X	X	
What decisions are controlled by headquarters? What decisions belong to the manager of operations?	X	X	X	X
How do you know the decentralisation is effective in practice?	X	X		

DP: Director of Board and/or President

CA: Controller and/or accounting manager

OS: Other senior managers

OM: Operations' managers

2. Budget Emphasis

Interview content	DP	CA	OS	OM
When evaluating managers' performance how much importance do you attach to each of the following items? Please choose and rank the three most important items (as card):	X	X	X	X
<ul style="list-style-type: none"> • effort put into the job • how much profit making • concern with quality • meeting the budget • the ability to handle people • efficiency in running his unit • attitude towards his work • how well getting on with group staff 				
What is the role of the budget in company management?	X	X		
Does your company have a formal budget planning and control manual?		X	X	
How is the objective of each operation set? How should the company strategies and operation's special environments be considered?	X	X		X
How should the performance of operations be evaluated? Does the headquarters consider the non-financial indicators?	X	X	X	X
If an operation did not attain its objective, what does the headquarters do? Could the headquarters accept the manager's explanation?	X	X	X	
What is the relationship between promotion and bonuses and budget performance?	X	X		X

3. Selection of Managers

Interview content	DP	AC	OS	OM
What is your company's policy of manager selection?	X		X	X
Is there any difference in manager selection between the domestic and the foreign operations?	X	X	X	
In a foreign operation, How do you organise its operating managers? Do you consider their nationality? Is there any rule? Why?	X			
When your company selects managers, Are cultural and age factors important considerations? Why?	X	X	X	
Under what conditions, do you think the company will change a manager?		X	X	

Interview II: Interview with Operations' Managers

1. Objective Setting

Interview content	OM	CA	DH
How do you determine the company's (operation) objective (or standard)?	X	X	X
How is the new budget developed? Who proposes budget levels?	X	X	X
When setting objectives (standards), What is the extent of impact from the senior managers? What is the importance of the operating manager's contribution to the budget?		X	X
Do you think everyone in the company (or operation) has the right role in the objective-setting or standard-setting process?	X		X
How are the company policies and strategies considered in objective setting?	X	X	
Do you think the various budgets(standards) are tight or loose? Why?	X	X	X

OM: Operation's manager and/or vice-manager CA: Operation's controller and/or accounting manager
DH: Division's heads

2. Participation

Interview content	OM	CA	DH
Does your company have a budget committee? Who participates in the committee? What is its function?	X	X	
What is the extent to which the superiors seek their subordinates' input in the budgeting process?	X		X
How many discussion meetings are held in budgeting? How much time is spent in budgeting?	X	X	
Does your superior finalise your unit's budget without your agreement?		X	X
What is the extent of upper management realising the lower management problems and lower management understanding the upper management expectations in the budgeting process?	X	X	X

3. Long-term and Short-term Planning

Interview content	OM	CA	DH
What is the budget time span in your company? Does the company have a long-term budget ?	X	X	
Does the company have a system of formal long-term planning? If it has, what is the content of long-term planning?	X	X	X
If the company (operation) has long-term planning, how does your company (operation) develop it? Who participates in it?	X	X	
How does your company (operation) match short-term budgeting with long-term planning?	X	X	X

4. Decentralisation

Interview content	OM	CA	DH
Does your company (operation) have a formal decentralised decision making system? What is the extent of company (operation) decentralisation? What decisions are controlled by top managers?	X	X	
Does each manager clearly know what decisions he can make himself? Does each manager of a responsibility unit make decisions independently?	X	X	X
What is the extent to which the supervisors change their subordinates' decisions?		X	X

5. Formality

Interview content	OM	CA	DH
Does your company keep formal documents about the function of each department and the job descriptions?	X		X
Does the budget process in your company have a standardised process? Does the company keep written records of budget variances?	X	X	
Does your company keep written evaluations of managers' job performances? Are the rewards in your company based on written evaluations?	X	X	
Are the regulations, rules and procedures strictly obeyed in day-to-day operating?		X	X
Can changes in the budget be made only after approval from higher management?	X	X	

6. Controllability-filters

Interview content	OM	CA	DH
How do you evaluate your subordinates' performance? What are the indicators used?	X	X	
When evaluating managers' performance, do you think managers should be held responsible for all budget variances or only for their controllable elements? Are uncontrollable factors excluded in the performance evaluation?	X	X	X
Will the managers who do not meet their budget be in trouble? Do they have sufficient opportunities to explain?	X	X	X
Can operating objectives be adjusted during the budget period? Under what conditions can it be done?	X	X	

7. Feedback Extent and Frequency

Interview content	OM	CA	DH
In what period of the year are management appraisals made and what is the procedure used?	X	X	
What part of the report is generally best read? Are these reports the primary signals, or feedback mechanisms, for the top management, giving them information about cost, status, and budget accuracy?	X		X
Is the analysis of budget variances done frequently? How do you determine the material variances which need to be further investigated?	X	X	
Do managers know clearly the impact of variances (both positive and negative) on their evaluations?	X	X	X
Does the budget information help upper management to evaluate the performance of lower managers? What is the extent of feedback about the subordinates' rewards and promotions?	X		X

8. Contingent Rewards

Interview content	OM	CA	DH
How do you measure your subordinates' performance? Do you use multiattribute measures? Have you used non-financial measurements?	X	X	
Does the compensation contract clearly specify how the employees' compensations are related to their units' performance relative to their units' budget?		X	X
What is the extent to which your financial rewards increase as your unit increasingly outperforms your unit's budget?		X	X
How does the extent of bonus differ among the managers whose performances are different?	X	X	
What is the percentage of total annual compensation coming from pre-set salary as opposed to bonuses?		X	X
Is it possible to have better performance by increasing performance-contingent rewards in your company? Is it possible that the pre-set salary of a unit manager will be reduced as a result of poor performance?	X	X	
Over the past few years has the determination of performance-dependent rewards been changed?	X	X	

9. Group Rewards

Interview content	OM	CA	DH
What is the incentive base in your company? Is it based on corporate performance, responsibility centre performance, individual performance or other base? Why?	X	X	X
In addition to general reward systems which are shared by both managers and employees, does your company have an executive incentive plan? What is the content of the plan?	X	X	
What are the main factors considered when the company designs the reward system? Is national culture an important factor?	X	X	
Over years how have the employees responded to the company rewards system?	X		X

10. Long-term Rewards

Interview content	OM	CA	DH
Does your company have a long-term incentive plan? Who can share in that plan? If not, why does your company not need it?	X	X	
Does your company have a stock option or purchase plan? Does your retirement system consider the managerial performance factor?	X	X	
When your company decides the annual bonus, does the top management consider the growth rate or other performance indicators over a long-term period (such as 3 years average rate)?	X	X	X
Does your company have any plan to establish a new long-term reward system?	X		

Appendix 2 Field Interviews

Table A2.1 Field Interview Table

Interviewee	Title	Date	Time
Tatung: headquarters			
T. S. Lin	Chairman of Tatung group	1996/09/06	10:00--11:00
H. T. Liu	Vice President (finance)	1994/12/31 *	09:30--10:30
Y. C. Chen	Secretary General	1995/08/21	13:30--15:00
Charles G. F. Leu	Deputy General Financial manager	1995/08/24	15:00--16:10
J. Z. Wung	Vice Chairman of Internal Auditing	1995/09/05	10:00--11:00
E. I. Chu	Member of Internal Auditing	1995/09/05	11:10--12:00
Tatung: Electronic General Plant (Taiwan)			
Y.Y. Wang	General Manager	1995/08/29	10:00--11:10
Karl K. L. Hsu	Accounting Manager	1995/08/29	11:20--12:30
Yan-Nian Lin	Manager of Engineering Dept.	1995/08/29	13:10--13:45
S.F. Chen	Manager of Production & Sales	1995/08/29	13:50--14:35
M.F. Wang	Deputy manager of Logistics	1995/08/29	14:40--15:20
Tatung: Tatung U.K. Company			
W. T. Lin	President	1995/03/18 *	12:00--13:30
Y. H. Hsieh	Managing Director	1995/07/24	17:30--19:00
William W. J. YU	Chief Accounting		
Y. J. Shiu	Executive Director	1995/07/27	11:40--12:30
David Pugh	Financial Controller	1995/07/27	13:20--14:30
Roy H. Perrins	Operations Manager	1995/07/27	15:00--16:00
Acer: headquarters			
Stan C. Z. Shih	Chairman of Acer Group	1995/09/10	14:00--15:00
George S. F. Huang	Senior Vice President	1995/09/12	10:10--11:00
Philip G. P. Peng	Vice President	1995/01/04 *	09:30--11:00
		1995/09/11	17:40--19:00
Austin E. S. Chen	Vice President (sourcing)	1995/09/19	17:00--18:00
Z. F. Ye	Director of Internal Auditing	1995/09/08	14:20--15:10
Henry L. J. Wu	Director of Management Analysis	1995/09/08	10:20--12:30
Acer Group: Acer Global Inc. (Taiwan)			
Richard C. F. Cheng	General Manager	1995/09/11	14:00--15:00
I. S. Tsai	Plant Manager	1995/09/19	09:20--10:45
Anderson J. H. Su	Director of Logistics Dept.	1995/09/19	10:50--11:30
Jason E. M. Chen	Manager of Spare Part	1995/09/19	10:35--12:15
M. L. Yen	Chief Accountant	1995/09/19	15:35--16:20
Acer: Acer Computer B.V. (Holland)			
Teddy Lu	President of Acer Europe	1995/10/19	14:30--15:45
Eric Tien	European Controller	1995/10/19	15:50--17:10
Howard Chan	Director Treasury	1995/10/20	09:30--11:00
Henk Van Tongeren	Financial controller	1995/10/20	11:20--12:05
Mariette Wemelsfelder	Human Resource Manager	1995/10/20	14:00--14:45
Jackson Wei	Director of Logistics	1995/10/20	15:20--17:10
Acer: Acer Computer GmbH (Germany)			
Wolfgang Griegoleit	Prokurist Director	1995/10/23	14:00--15:10
Ken Su	Managing Director	1995/10/23	16:50--18:30
Klaus M. Muuss	Managing Director	1995/10/24	10:30--11:10
Wilfried Thom	Product Marketing Director	1995/10/24	11:30--12:15
Mark Huang	Finance Controller	1995/10/24	12:30--13:00
			16:00--17:00

Interviewee	Title	Date	Time
Acer: Acer UK Limited (Britain)			
Jerry W. T. Wang	Managing Director	1995 11/21	13:50--15:05
Dave Tanner	Marketing Director	1995 11/21	15:15--15:50
Jimmy Su	Director of Logistics	1995 11 21	16:00--16:50
Graham Jackson	Financial Director	1995/11/21	17:10--18:15
Mitac: headquarters			
Matthew F. C. Miao	Chairman of Mitac Group	1995 09 06	16:00--17:00
C. S. Ho	Vice Chairman of Mitac Group	1995 08 28	11:40--12:40
Francis T. Tsai	President of Mitac International Co.	1996 09 24	12:00--13:00
Liang Su	President of Mitac Inc.	1994/12 31 * 1995 08 22	11:00--11:40* 14:00--15:40
Godfrey Y. C. Chen	Controller	1995 08 31	16:00--17:00
Mitac: U. K. Company (Britain)			
Lawrence T. C. Lu	Managing Director	1995 07/17	17:00--18:30
Eddy Lagrand	Logistics Director	1995 07/14	17:00--18:10
Gurdial Duhre	Finance Director	1995 07 19	15:00--16:00
Corrina S. L. Chan	Manager of Finance	1995 07 13	15:00--16:00
Nicky C. S. Ni	Technical Manager	1995 07 12	17:00--18:10
Mitac: Hsinchu Plant (Taiwan)			
C. J. Ling	Vice President of Manufacturing	1995 08 31	10:30--11:40
C. H. Wang	A.V.P. of Material Division	1995 08 31	11:40--12:30
Gino S. F. Chang	A.V.P. of Quality Assurance Centre	1995 09 01	14:00--15:00
Percy H. T. Chen	A.V.P. of Technical Service Centre	1995 09 01	15:00--16:00
Asherly P. E. Tsai	Manager of Finance Division	1995 09 01	16:10--16:55
Liton Corporation: headquarters			
Warren K. Z. Chen	President	1995 09 21	17:40--18:30
Rick C. H. Wu	A.V.P. of Finance Dept.	1995 09 21	16:30--17:40
Jacob G. T. Liao	Director of Corporate Planning		
Lando C. T. Lin	Associate Director of Finance Dept.	1995 09 26	17:40--18:30
Lite-On: Power Conversion Plant (Taiwan)			
Ear Hsun Chang	Vice President (Sales Marketing)	1995 09 26 1995 09 29	14:30--15:30 11:00--11:40
Richard P. S. Hu	Director of Planning Dept.	1995 09 26	15:30--16:20
Stone K. W. Wang	Operation A.V.P.	1995 09 26	16:30--17:20
Lite-On: Lite-on Ltd. (Britain)			
Peter Higgs	Managing Director	1995/11 09	09:30--10:50
Brian Smith	Chief Executive	1995 11 09	11:20--12:30
Afzul Mohammed	Financial Director	1995/11 09	12:40--13:50
Patricia Douglas	Personnel Manager	1995/11 09	14:15--15:05
Henry F. Davidge	Director of sales & Marketing	1995 11 09	15:15--15:55
Malcolm Humble	Production Manager	1995 11/10	10:30--11:15
CMC: headquarters			
L. Z. Yang	Vice President (Finance)	1994 12 29 *	15:00--16:00*
Jean G. W. Lu	Supervisor of Finance		
Jean G. W. Lu	Supervisor of Finance	1995 09 14	14:00--15:00
CMC: Europa Magnetic Limited (Britain)			
Smoll T.J. Wang	Vice President	1995/11/10	14:00--15:30

* No tape record

Table A2.2 Field Interview Time

Unit: minute

Tatung	Acer	Mitac	Lite-On	Other	Total
1,010	1,695	1,050	725	210	4,690

Appendix 3 Important Companies in the Case Firms

Tatung Group

1. Tatung Corporation

As a headquarters of the Tatung group, Tatung is a conglomerate with almost 40 companies world-wide and sales of 3.5 billion US dollars. Its shareholders number almost 170,000 at present and its employees own nearly 20% of stock share. It is the first publicly offered electronic company listed on Taiwan's Stock Exchange and currently it has 30 thousand employees including 20 thousand in Taiwan and 10 thousand in other countries. It has a branch office or manufacturing plant in the US, Japan, the UK, Germany, Singapore, Malaysia, Thailand, Indonesia, Hong Kong, Korea, Canada, Hungary, and on the Chinese Mainland. The main product sectors of Tatung are electronics, communications, home appliances, heavy electric apparatus, industrial equipment and trading. In the past ten years its turnover almost trebled, and the information products continually increased until now they account for nearly 70% of total sales. Objectively speaking, it is now a great information corporation. Its revenue reached NT\$40.9 billion and it was ranked as 8th in Taiwan's manufacturing industries in 1995.

2. Chunghwa Picture Tube Ltd.

It was established in 1970 and after suffering 15 years losses the company turned into a very profitable company. Over the past three years, most of the profits of the Tatung group came from this company. Its tubes, ranging from 4.5 inches to 20 inches, are available for televisions, automobiles, and high-resolution display monitors. It was ranked as 29th in Taiwan's manufacturing industry and its sales were nearly NT\$23.2 billion in 1995. It is expected to be a publicly listed company on Taiwan's Stock Exchange in 1999. The president of the company is one of the sons of the group's chairman.

3. Taiwan Telecommunication Industry Company

The company, established in 1966, is Taiwan's leading manufacturer of telecommunications equipment. With the most advanced QC testing equipment, precise automatic machinery, and a perfect QC system, it has offered its services to Taiwan's telecommunication Administration and civilian companies for a long time. According to Common Wealth Magazine, in 1995 its turnover attained NT\$2.3 billion and it was ranked as 362nd of Taiwan's manufacturing industries.

4. Forward Electronics Company

The company produces lots of electronic and information products, including TV tuners, moderators, and AM/FM radio tuners, remote control units, switches, record/play heads, resistors, mouse, keyboard, TN, and LCD. It produces a series of products that are light, thin, short, and tiny. According to Common Wealth Magazine, in 1995 its turnover reached over NT\$2.6 billion and it was ranked as 329th of Taiwan's manufacturing industries.

5. Tatung Fujitsu Company

Established in 1973, Tatung Fujitsu Company is a joint venture between the Tatung Company and the Fujitsu Company, the largest computer manufacturer in Japan. It is mainly engaged in selling and renting a full line of Fujitsu computer systems. Hardware systems include extra-large models, large models, medium models, and small models of personal computers, computer peripherals, and a series of Tatung personal computers. The development of software systems includes system design and analysis, technology support, training, and data processing. According to Common Wealth Magazine, in 1994 its turnover attained over NT\$0.8 billion and it was ranked as 403rd of Taiwan's service industries. Due to the product conflict between the Tatung Company and the Fujitsu Company, Tatung stopped the joint venture and sold its 50% of total shares. In all, Tatung made over NT\$169 million profit in July, 1996.

6. Tatung OTIS Elevator Company

The Tatung OTIS Elevator Company was established in 1983 as a joint venture of the Tatung Company and the American OTIS Elevator Company. It offers total capabilities in design, manufacture, installation and maintenance of elevators and escalators and has been widely welcomed by customers. In 1995, its turnover attained nearly NT\$1.8 billion and it was ranked as 451st of Taiwan's manufacturing industries by Common Wealth Magazine.

Lite-On Group

1. Taiwan Liton Electronic Co., Ltd.

It was established in 1975, and is currently divided into two business units: the opto division and Power conversion division. It became a public company in 1983. With twenty years experience in the optoelectronic industry, it has become one of the world's leading developers and manufacturers of high-performance LED optoelectronic products for a wide variety of computer, communications and

consumer applications. The company has also built up a strong presence in the international computer peripherals market through its power conversion division. Because of the development of the computer and communication industry, the opto division maintains about 15-20% high growth rate and the conversion department still maintains 12% growth rate. Taiwan Liton's efficient infrastructure enables the company to deliver high quality products at extremely competitive prices. The company now has six production facilities in Taiwan, Thailand, Malaysia and the United Kingdom and contract manufacturing plants in Mainland China and the Philippines which implement up-to-date manufacturing procedures to increase responsiveness to customers needs. Its turnover reached NT\$9.1 billion and it was ranked as 77th of Taiwan's manufacturing industries in 1995 by Common Wealth Magazine.

2. Silitek Corporation

Originally established as the Silitek Rubber Corporation in 1978, the company reorganised in 1983 and became known as the Silitek Corporation. It produces rubber products for computer and communication, keyboard, and scanner products. The company has enjoyed stable growth and expansion throughout its history and in 1988 it became a public company. Silitek has built up an impressive client list that includes some of the leading names in the world-wide computer industry. It owns many manufacturing facilities in Taiwan, Malaysia, USA, and Mexico, as well as branch offices in the UK, Japan, Korea, Singapore, and mainland China, while its products have garnered a large number of prestigious international and domestic awards for design and quality. Its turnover achieved over NT\$2.7 billion and it was ranked 311th of Taiwan's manufacturing industries in 1995 by Common Wealth Magazine.

3. Lite-On Technology Corporation

It was established in 1989 and it has become one of the top five monitor manufacturers in the world and OEM/ODM supplier of choice to many of the famous brand names in the monitor, PC, workstation, and X-terminal businesses. Lite-On Technology's award-winning range of display products includes state-of-the-art 21" CAD/CAM colour displays, 15" and 17" Multiscan monitors that are highly popular with high-end PC, X-window and colour workstation users, and advanced microprocessor controlled monitors. With a high growth rate, it became a public company in 1995. Having extensive experience and the expertise of the highly-acclaimed R&D division is the key to its success in the fiercely competitive monitor market. Its turnover grew from NT\$9 million in 1994 to nearly NT\$17.5 million in

1995 and it was ranked 40th of Taiwan's manufacturing industries in 1995 by Common Wealth Magazine.

4. Dyna Image Corporation

Since it was formed in 1990, Dyna Image Corporation has quickly established itself as a world leader in the design and development of state-of-the-art semiconductors and modules for advanced image sensing and image processing applications. Its products can be divided into three major categories: contact image sensors (CIS) for use in fax machines, scanners, pen scanners, copiers, built-in PC input devices, and measuring equipment; charge coupled device (CCD) sensors for scanner, fax, bar code readers, OCR (optical character recognition), and spectroscopy applications; and camera modules for videophone, video intercom, surveillance and multimedia videocapture applications. With its cutting-edge technology, efficient manufacturing capabilities, and quick responsiveness to customer needs, Dyna Image has already built up an impressive client list of leading companies in the world-wide optical electronics companies and has established a strong foundation for continued expansion in the future. Its turnover is nearly NT\$1.2 billion and it was ranked 628th of Taiwan's manufacturing industries in 1995 by Common Wealth Magazine. Its shares have been offered on the counter centre.

5. Lite-On Power Semiconductor Corporation

Lite-On power Semiconductor Corporation originally began operations as the Silitek Semiconductor Division of Silitek Corporation. In early 1991, the Semiconductor Division became the independent Silitek technology Corp., which was renamed Lite-On Power Semiconductor Corp. later that year to identify the company more closely with the parent Lite-On group. As one of the world's largest independent manufacturers of power semiconductors it offers a comprehensive range of reliable and economical power semiconductor design solutions. The company manufactures high-quality silicon and glass of passivated standard and faster recovery diodes for leading companies such as Motorola, GM, AT&T, Samsung, Sony and Siemens. The company operates highly-automated production facilities in Taiwan and mainland China, which have been awarded the internationally-recognised ISO-9001 certification. Its turnover is over NT\$1.1 billion and it was ranked 653rd of Taiwan's manufacturing industries in 1995 by Common Wealth Magazine.

6. Lite-On Inc.

From its beginning as an electronic component sales agent, Lite-On Inc. has become a major producer of multi-layered print circuit boards following its merger

with Fu-Yu Co., Ltd. in 1990. These boards are used around the world in a variety of high-tech computer, computer peripheral and telecommunications applications. Its turnover is nearly NT\$1.2 billion and it was ranked 316th of Taiwan's service industries in 1994.

7. Strong Electronics Co., Ltd.

Strong Electronics is a joint venture that was established in January 1995 between the Lite-On Group and Arrow Electronics., the world's largest distributor of electronic components and computer products. The company acts as the Taiwan electronic components sales agent for leading international brands such as Motorola, AMP, Sprague, Trident, Bourns, and C-pak. Strong Electronics has built up an extensive distribution and service network in the Asian-Pacific region, which includes branch offices in Malaysia, Thailand, Korea, Hong Kong and Singapore. Its turnover attained over NT\$0.8 billion and it was ranked as 448th of Taiwan's service industries in 1995 by Common Wealth Magazine.

Mitac Group

1. Mitac Inc.

The Mitac brand name is well-known in industry and markets around the world. It founded the Taiwan computer industry as its first company in 1974. Since then, it has maintained its leadership, spawning companies that now comprise the Mitac Group, while expanding its own operations internationally. It focuses mainly on system integration, chain store business, and industrial computing products. Despite the wide range of its businesses, Mitac Incorporated maintains its focus on, and commitment to, directly serving the needs of end-users with solutions that represent the state of the art in computer technology. Its turnover is over NT\$2.2 billion and it was ranked 199th of Taiwan's service industries in 1995.

2. Mitac International

Mitac International was founded in 1982 but today it has become a world-class computer and computer peripheral manufacturer with production sites in the USA, UK, Australia, Taiwan and China, along with assembly operations in other countries. Its products contain PC systems ranging from a portable desktop system up to multiprocessor servers, and some components including motherboards, graphics cards and other types of expansion cards. Mitac International also owns ten overseas subsidiaries and over 70 distributors in more than 60 countries. It has become a publicly listed company since 1990. Its turnover achieved over NT\$12.3 billion and it

was ranked 59th of Taiwan's manufacturing industries in 1995 by Common Wealth Magazine.

3. Synnex Information Technologies

Synnex Information Technologies was founded in America in 1980, and it has consistently posted annual revenue increases of 40 to 50 percent over the past few years. At present it ranks among the top ten computer distribution houses in the United States. It offers not only a full line of Mitac-branded desktop and notebook systems, monitors, and board-level components, but also some relevant computing products from other leading firms in the computer industry.

4. Synnex Technology international

Synnex Technology International, like Synnex Information Technologies, primarily focuses distribution on Asian countries. It was officially established in 1988 as a joint venture between the Mitac Group and the Britain's Lex Group, and its experience in the distribution of computers, components and peripherals stretches back 18 years. It has established itself as the largest distributor of computers, peripherals and components in Taiwan and it became a public company in 1995. Its turnover was nearly NT\$5 billion in 1994 and over NT\$7.2 billion in 1995 and it was ranked 57th of Taiwan's service industries in 1995 by Common Wealth Magazine.

5. Getac

Getac was founded as a joint venture between the Mitac Group and the General Electronic Aerospace Group, which was later merged with Lockheed Martin, the world's largest defense-related firm. Its main products focus on defence and aerospace electronics.

Acer Group

1. Acer Incorporated

Organised in 1981, Acer Incorporated serves as the headquarters of the group. In 1988, it became a publicly offered company listed on the Taiwan Stock Exchange. Currently, Acer is the world's seventh largest PC brand company. The company is actively involved in the integration of consumer electronics and communications in its product development efforts. Acer Incorporated employs 3,600 people and with reported revenue of NT\$33 billion it ranked as 11th of the manufacturing industries of Taiwan in 1994. In 1995 its revenue attained over NT\$62.5 billion and it was ranked 5th in Taiwan's manufacturing industries by Common Wealth Magazine.

2. Acer Peripherals Incorporated

Acer Peripherals Incorporated (API) was established in 1984, and the company now has 5,300 employees. It owns world-class factories in Taoyuan, Taiwan and Penang, Malaysia. Its products include colour monitors, laser printers, key-boards, CD-ROM drives, X-Terminals, and fax machines. Currently, API is one of the world's five largest colour monitor manufacturers. In the past four years, API has grown by an average of around 70 percent each year, making it one of the fastest-growing businesses within The Acer group. It became a publicly offered company listed on the Taiwan Stock Exchange at the end of 1995. API reported nearly NT\$16 billion turnover and it was ranked 34th of the manufacturing industries of Taiwan in 1994. In 1995 its revenue attained over NT\$26.3 billion and it was ranked 24th of Taiwan's manufacturing industries by Common Wealth Magazine.

3. Acer Sertek Incorporated

Acer Sertek Incorporated was originally formed in 1976 by the chairman and four co-founders. Its principal businesses consist of Acer's domestic brand name business; acting as the Taiwan agent for computer hardware, and peripherals from top international brands; and in-house development of multimedia equipment and military/industrial-use computers. At present, Sertek is also working towards becoming a manufacturer of integrated Video CD products. The company runs over 130 AcerLand computer stores around Taiwan and over 100 value-added resellers. This makes Sertek Taiwan's first and largest chain of specialised computer retail outlets. The company employs nearly 800 people and reported more than NT\$8.1 billion in revenue and was ranked as 49th of Taiwan's service industries in 1995. It has recently become a publicly offered company listed on the Taiwan Stock Exchange in September of 1996.

Acer Sertek also manages Acer Market Service (AMS), a firm charged with marketing, sales, and service of Acer products in the mainland China market. It was set up in 1992 and headquarters are in Hong Kong, but it has branches or regional offices in major cities such as Beijing, Shanghai, Chengdu, and Shenyang. Currently it has a staff of 50 people and its revenue was nearly US\$10 million in 1994.

4. Texas Instrument-Acer (TI-Acer) Inc.

Established in 1989 as a joint venture between Texas Instruments and Acer, TI-Acer is Southeast Asia's first volume producer of dynamic random access memory (DRAM). Since coming on-line, TI-Acer has set records in time to production and

monthly output of DRAM chips. Among all DRAM factories invested in by Texas Instruments, the Hsin-Chu site in Taiwan is regarded as a model for other plants around the world to follow. Profit has been excellent for the past few years. It employs almost 1,400 people and its turnover was more than NT\$8 billion and it was ranked 65th of the manufacturing industries of Taiwan in 1994. In 1995 its revenue achieved over NT\$14.6 billion and profits nearly NT\$6.5 billion and it was ranked 52nd of Taiwan's manufacturing industries. It is expected to become a publicly listed company on the Taiwan Stock Exchange in 1998.

5. Acer Laboratories Inc.

Acer Laboratories Inc. (ALI) was established in 1987. It designs, manufactures and markets ASICs for personal computer motherboard designers and manufacturers around the world. In order to keep up with fast-changing ASIC design requirements, ALI channels approximately 10 percent of its revenue into R&D. Of the firm's 200 employees, more than half are design engineers. Its revenue jumped to nearly NT\$1.7 billion and it was ranked 407th of the manufacturing industries of Taiwan in 1994. In 1995 its revenue attained over NT\$2.2 billion and it was ranked 368th of the manufacturing industries.

6. Ambit Microsystems Inc.

Established in 1991, Ambit Microsystems Inc. is one of the leading hybrid customer module manufacturers in Taiwan. The firm was created as a fifty-fifty joint venture between Acer and Germany's Temic (Telefunken Microelectronics), a Daimler-Benz Group company. It employs nearly 300 people and its revenue grew by 148% in 1994 to more than NT\$0.4 billion. In 1995 its revenue attained over NT\$1.6 billion and it was ranked 484th of Taiwan's manufacturing industries by Common Wealth Magazine.

7. Acer TWP Corporation

It was established in 1983 and is Taiwan's largest publisher of high-tech books and periodicals and a leading agent and distributor for many renowned overseas software publishers. The company employs 200 people and its revenue reached over NT\$0.4 billion in 1994 and about NT\$0.58 billion in 1995.

8. Acer Computer International Pte Ltd.

Headquartered in Singapore, Acer Computer International (ACI) is the business group within Acer responsible for assembly, marketing, distribution, and servicing of Acer products in the Asian Pacific, Indian, African, and Middle Eastern

markets. It became a publicly offered company listed on the Singapore Stock Exchange in September 1995 and it is the first company of Taiwan to be publicly offered abroad. In the past four years it averaged more than 60% growth rate and it employed nearly 950 people and its revenue achieved nearly NT\$15 billions in 1994 and NT\$16 billion in 1995.

Under the RBU, its Acer Global Inc. having only employees 157 attained revenue of nearly NT\$4.8 billion and it was ranked 164th of Taiwan's manufacturing industries in 1995.

9. Acer-Computer Latino America

Acer-Computer Latino America (ACLA) was established in January of 1995 as a joint venture between Acer Latin America and Computec de Mexico, Mexico's largest computer distributor and Acer's fifth most successful distributor in the world. ACLA is responsible for the manufacturing, marketing, and distribution of Acer products, as well as general management of Acer's business in the Latin American region. ACLA has already become a publicly listed company on the Mexico Stock Exchange since July 1996. It employs 420 employees and its revenue attained US\$214 million in 1994 and US\$301 million in 1995.

10. Acer America Corporation

Located in San Jose, California, Acer America Corporation (AAC) was established in 1977. The company serves primarily as the business unit responsible for the marketing, sales, assembly, and service of Acer brand name and other products in north America. In addition, AAC conducts extensive R&D, software development, and manufacturing operations with approximately 1,300 employees. Its revenue reached US\$858 million in 1994 and US\$1,437 million.

11. Acer Computer B.V. (Acer Europe)

Acer Computer B.V. was established in 1985 and has headquarters in the Netherlands and operates subsidiaries in Germany, France, England, Belgium, Denmark, Norway, Italy, Austria, Hungary, and Spain. At present, the company is shipping more than 20,000 PCs per month from three factories located in the Netherlands, England, and Germany. The firm employs nearly 400 people and its revenue attained US\$289 million in 1994 and US\$462 million in 1995.

Appendix 4 Financial Data of Case Firms

Table A4.1 Consolidated Income Statement of Tatung Company (Unit: million NT\$)

Item	1991	1992	1993	1994	1995
Operating revenue (net)	44,808	49,651	54,431	73,493	84,698
Operating gross profit	6,447	8,335	12,448	14,430	18,365
Operating income	2,306	3,692	6,661	7,249	11,039
Net income before tax	484	1,573	4,305	6,398	9,250
Net income after tax	483	1,563	4,111	6,140	6,606
Consolidated net income after tax	295	1,215	3,508	5,390	5,887
Consolidated earnings per share	NT\$ 0.33	NT\$ 1.21	NT\$ 2.68	NT\$ 3.00	NT\$ 3.16

Table A4.2 Consolidated Balance Sheet of Tatung Company (Unit: million NT\$)

Item	1991	1992	1993	1994	1995
Current assets	20,867	21,117	24,514	33,444	39,674
Long-term investment	2,788	2,812	3,034	2,807	3,170
Fixed assets	31,532	34,576	36,269	35,296	45,693
Other assets and consolidated debit	1,154	1,034	934	5,333	11,318
Total assets	56,341	59,540	64,751	76,880	99,855
Current liabilities	24,683	26,142	27,007	30,604	36,026
Long-term liabilities	16,386	15,572	16,399	12,088	19,054
Other liabilities and minority interest	759	1,112	2,133	3,517	9,648
Total liabilities	41,828	42,826	45,539	46,209	64,728
Capital stock	8,837	8,837	10,074	15,000	18,600
Retained earning	5,676	7,877	9,138	15,771	16,527
Total liabilities and stockholders equity	56,341	59,540	64,751	76,880	99,855

Table A4.3 Tatung (U.K.) Limited (Unit: GTB '000)

Item	1991	1992	1993	1994	1995
Turnover (net)	47,501	59,371	65,612	78,577	79,539
Net income before tax	-3,851	-1,789	-2,402	-6,691	-1,863
Net income after tax	-3,851	-1,789	-2,402	-6,691	-1,863
Total assets	58,341	52,413	53,633	54,425	61,001
Collection period (days)	55.3	80.6	116.1	101.7	102.8
Stock turnover (times)	3.0	4.3	4.2	3.9	4.1

Table A4.4 Consolidated Income Statement of Mitac International (Unit: million NT\$)

Item	1991	1992	1993	1994	1995
Operating revenue (net)	6,399	8,408	10,287	14,954	28,139
Operating gross profit	919	616	744	1,373	2,030
Operating income	61	-482	-269	81	542
Net income before tax	-73	-669	-96	42	264
Net income after tax	-74	-687	9	26	193
Consolidated net income after tax	-74	-698	-87	3	154
Consolidated earnings per share	-NT \$0.45	-NT\$ 4.28	-NT\$ 0.54	NT\$ 0.02	NT\$ 0.69

Table A4.5 Consolidated Balance Sheet of Mitac International (Unit: million NT\$)

Item	1991	1992	1993	1994	1995
Current assets	3,878	3,404	3,930	5,899	10,394
Long-term investment	272	273	238	283	271
Fixed assets	1,000	910	1,007	1,039	1,514
Other assets and consolidated debit	363	389	464	463	456
Total assets	5,513	4,976	5,639	7,684	12,635
Current liabilities	2,599	2,630	3,223	4,178	7,901
Long-term liabilities	456	528	524	285	87
Other liabilities and minority interest	-	55	195	379	434
Total liabilities	3,055	3,213	3,942	4,842	8,422
Capital stock	1,483	1,631	1,631	2,101	2,852
Retained earning	975	132	66	741	1,361
Total liabilities and stockholders equity	5,513	4,976	5,639	7,684	12,635

Table A4.6 Mitac Europe Limited (UK) (Unit: GTB '000)

Item	1991	1992	1993	1994	1995
Turnover (net)	8,722	18,099	31,883	37,896	110,530
Net income before tax	-337	-37	11	169	48
Net income after tax	-337	-37	9	158	48
Total assets	4,328	9,663	14,156	15,020	58,571
Collection period (days)	52.9	42.8	46.1	46.9	44.4
Stock turnover (times)	4.4	4.8	5.3	5.5	6.1

Table A4.7 Consolidated Income Statement of Acer Inc.

(Unit: million NT\$)

Item	1991	1992	1993	1994	1995
Operating revenue (net)	26,402	23,134	34,003	63,017	107,063
Operating gross profit	6,633	4,482	5,412	9,657	13,494
Operating income	-250	-443	-327	1,836	2,233
Net income before tax	-653	74	1,049	3,257	5,625
Net income after tax	-625	55	1,022	3,170	5,670
Consolidated net income after tax	-607	56	1,029	3,100	5,536
Consolidated earnings per share	-NT\$ 1.34	NT\$ 0.12	NT\$ 2.21	NT\$ 3.88	NT\$ 6.45

Table A4.8 Consolidated Balance Sheet of Acer Inc.

(Unit: million NT\$)

Item	1991	1992	1993	1994	1995
Current assets	12,937	12,404	17,132	24,982	47,018
Long-term investment	2,539	3,364	4,253	6,408	10,051
Fixed assets	4,158	3,745	3,117	3,097	3,584
Other assets and consolidated debit	6,164	5,232	3,995	3,909	3,824
Total assets	25,798	24,745	28,497	38,396	64,477
Current liabilities	13,025	10,876	14,624	21,835	32,768
Long-term liabilities	2,857	3,892	2,953	2,570	2,921
Other liabilities and minority interest	1,481	1,547	1,258	1,100	831
Total liabilities	17,363	16,315	18,835	25,505	36,520
Capital stock	4,524	4,598	4,646	4,770	9,451
Retained earning	3,911	3,832	5,016	8,121	18,506
Total liabilities and stockholders equity	25,798	24,745	28,497	38,396	64,477

Table A4.9 Acer U.K. Limited

(Unit: GTB '000)

Item	1991	1992	1993	1994	1995
Turnover (net)	5,914	18,912	17,373	16,290	31,373
Net income before tax	-18	-221	-2,656	-682	354
Net income after tax	-18	-221	-2,647	-682	333
Total assets	3,096	9,415	6,620	6,220	13,186
Collection period (days)	56.1	48.7	74.5	72.5	42.2
Stock turnover (times)	8.8	4.7	4.3	6.4	7.8

Table A4.10 Acer Computer B.V. (Holland)

(Unit: Dfl. '000)

Item	1991	1992	1993	1994	1995
Turnover (net)	172,620	110,919	173,942	345,102	464,183
Net income before tax	1,149	3,862	988	1,095	1,187
Net income after tax	1,149	3,862	811	665	388
Total assets	61,440	55,908	91,390	119,654	155,785
Collection period (days)	50.8	133.7	108.8	84.4	39.9
Stock turnover (times)	14.7	6.8	9.9	16.1	11.4

Table A4.11 Acer Computer GmbH (Germany)

(Unit: DM '000)

Item	1991	1992	1993	1994	1995
Turnover (net)	89,315	91,727	118,767	154,058	215,756
Net income before tax	3,687	-5,804	-8,281	-2,417	2,760
Net income after tax	3,698	-5,788	-8,281	-2,417	2,608
Total assets	56,679	42,197	60,572	63,328	78,885
Collection period (days)	50.9*	50.9	53.8	46.7	38.9
Stock turnover (times)	5.7+	4.9	5.8	8.0	8.1

* Bases on year-ended trade accounts receivable.

+ Based on year-ended inventory.

Table A4.12 Consolidated Income Statement of Taiwan Liton Electronic Co. (Unit: million NT\$)

Item	1991	1992	1993	1994	1995
Operating revenue (net)	3,107	3,670	4,708	6,311	8,098
Operating gross profit	639	630	872	1,304	1,592
Operating income	145	185	348	668	778
Net income before tax	150	144	381	685	872
Net income after tax	151	131	339	605	637
Consolidated net income after tax	151	131	339	605	637
Consolidated earnings per share	NT\$ 1.03	NT\$ 0.84	NT\$ 1.97	NT\$ 2.71	NT\$ 2.64

Table A4.13 Consolidated Balance Sheet of Taiwan Liton Electronic Co. (Unit: million NT\$)

Item	1991	1992	1993	1994	1995
Current assets	1,780	2,045	2,242	3,123	3,707
Long-term investment	187	233	309	825	951
Fixed assets	1,119	1,077	1,100	1,513	1,823
Other assets and consolidated debit	30	28	25	34	60
Total assets	3,116	3,383	3,676	5,495	6,541
Current liabilities	847	1,099	1,039	1,793	2,289
Long-term liabilities	212	109	51	22	20
Other liabilities and minority interest	23	20	19	19	69
Total liabilities	1,082	1,228	1,109	1,834	2,378
Capital stock	1,412	1,553	1,724	2,102	2,417
Retained earning	621	602	843	1,559	1,746
Total liabilities and stockholders equity	3,115	3,383	3,676	5,495	6,541

Table A4.14 Lite-on Limited (UK)

(Unit: GTB '000)

Item	1991*	1992	1993	1994	1995
Turnover (net)	1,074	7,042	9,107	8,137	12,074
Net income before tax	-149	-226	5	-122	1,199
Net income after tax	-149	-226	5	-122	-216
Total assets	2,013	3,513	2,606	4,911	5,348
Collection period (days)	135#	52.8	51.1	63.4	70.1
Stock turnover (times)	3.6+	15.9	18.2	7.5	7.3

* From 27 March 1991 to December 1991.

Based on ending debtors.

+ Based on ending stock.