The Effects of Subsidiary Roles and MNC Nationalities on the Top
Management Teams Demography: Empirical Research
on MNC Subsidiaries in Taiwan

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Abstract

The TMT perspective developed by Hambrick and Mason (1984) suggests that the demographic characteristics of the top management team may affect organizational outcomes. Little previous work examines the international dimension of the demographics of TMT and looks at the demographics of TMT as explanandum. This study investigates the effects of subsidiary roles and nationalities on subsidiaries’ demographic characteristics of TMT. Results show that subsidiary roles are positively related to the TMT’s education, social integration, and communication frequency and nationalities are positively associated with TMT’s age, education, and tenure.

Keywords: Subsidiary roles; Top management teams; Multinational corporations

1. Introduction

Volumes of research in academic journals are reflected the importance of Hambrick and Mason’s (1984) upper echelon theory. Much of the current research on top management teams (TMTs) has focused almost on the domestic context in the U.S (Sambharya, 1996). However, due to the intensity of international competition, the world has increasingly becoming global and many multinational corporations (MNCs) are dependent on foreign operations. Little prior research on this international dimension of TMTs (Lohrke and Bruton, 1997; Athanassiou and Nigh, 2000) addresses increasing need for academic efforts to fill the gap.

Along with the contributions of the upper echelon theory, Pettigrew (1992) credited it and challenged researchers to answer “why and how top team managers look the way they do” which means little research is focused on the top team characteristics as a phenomenon to be explained. Finkelstein and Hambrick (1996) stated that many TMT studies have examined the effects of TMT’s demographics characteristics on organizational outcomes and also articulated the need for studies to examine what and how do contextual conditions affect TMT’s demographic characteristics?

The purpose of this paper is to test whether the subsidiary roles and nationalities are associated with their TMT’s demographic characteristics. This paper addresses two less explored areas. First, this study focuses on the international dimension of TMT research through MNCs’ subsidiary level. Second, by taking up Pettigrew’s (1992) challenge, this study proposes that demographic characteristics of a subsidiary’s TMT are affected by subsidiary’s contextual variables, such as its role and nationality.

2. Background

Built on Hambrick and Mason’s (1984) seminal work on upper echelons, emphasizing organizational outcomes are reflections of the values and cognitive bases of dominant coalition, in particular TMT, the topic has become an important and prolific area. Volumes of empirical research may be clustered into three categories: top team’s demography model (Wiersema and Bantel, 1992; Tihanyi, Ellstrand, and Dalton, 2000), process model (Pfeffer, 1983; Eisenhardt and Schoenhoven, 1990), and intervening model (Smith, Smith, Olian, Sims, O’Bannon, and Scully, 1994). These three steams of research could be viewed as the inspirations of the behavior theory of a firm, focusing dominant coalition (Cyert and March, 1963; Child, 1972; Hambrick and Mason, 1984) and dominant logic (Prahalad and Bettis, 1996) are prime drivers for firms’ management outcomes.

Pettigrew (1992) recognized the contributions of these studies and encouraged researchers to treat team
characteristics as management outcomes. He identify that these works can be seen as a parallel research stream on TMTs for answering the question—why do teams look the way they do? A similar work articulated by Finkelstein and Hambrick (1996) which observed both environmental and organizational level contextual variables as antecedents to TMTs’ demographic composition and process. Athanassiou and Nigh (1999) who concluded that the MNCs’ international strategy had effects on TMTs’ international business advice network. However, to the best of our knowledge, there are still rare studies dealt with the relationship between contextual variables and demographics of TMTs.

Multinational corporations have received much attention since 1980 for their imperative roles in our global economy. Because subsidiaries in local milieu need meet pressures and requirements from both headquarters and local (Bartlett and Ghoshal, 1989; Rosenzweig and Singh, 1991), subsidiary-related studies cast light on the increasing need of the phenomenon. e.g. subsidiary roles (Bartlett and Ghoshal, 1989; Jarillo and Martinez, 1990), subsidiary autonomy (Birkinshaw, 1997; Birkinshaw, Hood and Josson, 1998), subsidiary evolution (Birkinshaw and Hood, 1998b) and others. However, no specific effort has been made to investigate the TMT related issues at a subsidiary level.

In an exhaustive review of 222 articles published in several leading management journal, Lohrke and Burton (1997) found that the present position of TMT studies in the international business literature is in a ‘notably absent’ situation. International dimension of TMTs is still an important and unexplored area in international business studies (Athanassiou and Nigh, 1999, 2000). Addressed by Athanassiou and Nigh (1999), if the studies of taking demographic composition of TMTs as ex-planandum are rare, studies of TMTs in multinational corporations are rarer, especially at subsidiary level.

This study addresses two additional underexplored areas. Firstly, this study takes up Pettigrew’s challenge to treat the top management team demography as the phenomena to be explained. Secondly, this study examines Pettigrew’s challenge to international business subsidiary milieu. This study examines the relationship between antecedents and demography of TMTs in multinational corporations’ subsidiaries. In particular, this study proposes that subsidiary roles and nationalities of multinational corporation have effects on subsidiaries’ demographic characteristics of TMT and interaction of TMT. This study seeks to provide both theoretical development and empirical evidence on the two phenomenons. This paper has three sections: the first section develops the theoretical bases needed to build hypotheses. The second section is the research methods employed. The third section discusses results and conclusions.

3. Theory and Hypothesis

3.1 Subsidiary Roles

Volumes of research of subsidiaries of MNCs can be largely categorized into three streams: headquarters subsidiary relationship, subsidiary roles, and subsidiary development (Birkinshaw and Hood, 1998a). Studies related to subsidiary roles may also be clustered into three clusters: nodal, dyadic, and systemic level perspectives (Gupta and Govindarajan, 2000). The series of research of the nodal view is to emphasize that the parent company will combine the content of the activity of the subsidiary because of its strategic demand (Birkinshaw and Hood, 1998b). Dyadic view is to emphasize the relationship between the change of the relationship of the two subsidiaries and parent company’s controlling way (O’Donnell, 2000) and subsidiary’s performance (O’Donnell, 2003). The systemic view emphasizes that the configuration among subsidiaries is a network (Ghoshal and Bartlett, 1990; Malone, 2002).

This study focuses on the nodal view of subsidiary roles. Prahalad and Doz (1987) first developed the integration-responsiveness framework to category three types of MNC strategy. Prahalad and Doz proposed that the MNC not only need to reach global integration but also need to meet local demands in order to obtain local responsiveness. Further, Jarillo and Martinez (1990) felt that there is a need to analysis the integration-responsiveness framework at subsidiary level and they proposed three types of subsidiary roles (i.e. active, receptive, and autonomous) to characterize subsidiary strategy. This kind of classification of subsidiary roles are later appeared and extended in many studies, such as Gupta and Govindarajan (1991), Birkinshaw and Morrison (1995), and Taggart (1998), etc. Although the nodal view emphasizes that a MNC’s internal structure is differentiated, for example, differentiated subsidiary roles (Jarillo and Martinez, 1990), functional activities (Ghoshal and Bartlett, 1986), and human resource management systems (Chuang and Jaw, 1993), and others. However, there is no related research to discuss the differentiated composition of the TMT at subsidiary level.

Based on Ghoshal and Nohria (1989) and Nohria and Ghoshal (1994), a multinational corporation is systematically differentiated into 4 internal situations, i.e. clans, integrative, hierarchy, and federative, so as to fit the different environmental contingencies. Each of these situations is characterized by a different combination of structural elements: centralization of authority, formalization of rules and systems, and normative integration of members. According to Ghoshal and Bartlett’s (1990) interorganizational network view, the international structure of a MNC is an unique combination of different differentiated structures. In general, the inter-
nal differentiated structures are in accordance with subsidiary roles and functional activities (Bartlett and Ghoshal, 1989; 1998), such as R&D is high in global integration and low in local responsiveness, marketing activities are in reverse situation. In a similar vein, we may infer that TMT composition is also differentiated with different subsidiary roles.

Researchers identified that top team managers from locals are familiar with local environmental situations and, therefore, are with much more effort to locals than expatriate managers from headquarters (Gupta and Govindarajan, 1991; Tung, 1992). We may infer that a subsidiary with more local responsiveness is also with higher ratio of local top team managers. Furthermore, we expect that infer that subsidiary with active role is higher in global integration and lower in local responsiveness which top team managers are with higher risk-taking attitude, more focusing on firm’s growth rate, and with more capability-oriented human resource practices. Studies indicated that younger managers tend to be more risk and innovation oriented (Wiersema and Bantel, 1992; Smart and Hitt, 1994). Further, top managers with high levels of education have been associated with receptivity to innovation and taking risks (Hambrick and Mason, 1984; Wiersema and Bantel, 1992). Top team members with average longer tenure result in resistance to change in strategic direction (Staw and Ross, 1980; Hambrick and Mason, 1984; Smith, Grimm and Gannon, 1992). We thus expect that subsidiary with active role tend to be different in dimensions of TMT characteristics than subsidiary with autonomous or receptive role.

**Hypothesis 1:** Subsidiary roles have effects on characteristics of TMT

**Hypothesis 1-1:** Autonomous subsidiary’s ratio of local top managers is higher than that of active and receptive subsidiaries

**Hypothesis 1-2:** Active subsidiary’s average age of TMT is lower than that of autonomous and receptive subsidiaries

**Hypothesis 1-3:** Active subsidiary’s average levels of education is higher than that of autonomous and receptive subsidiaries

**Hypothesis 1-4:** Active subsidiary’s average organizational tenure is lower than that of autonomous and receptive subsidiaries

According to Baliga and Jaeger (1984), if the relationship among subsidiaries is reciprocal interdependence, cultural control is a suitable way no matter environmental uncertainty is high and low. A similar view is Ghoshal and Nohtia (1989) and Nohria and Ghoshal (1994). They proposed that when the complexity of the environment is high, no matter the local resources is high or low, the internal structure is normative integration and cultural control is utilized. That is, under the situation of reciprocal interdependence, a more complicated mechanism of coordination than bureaucratic control is needed, for example, personal integrating mechanisms (Galbraith and Nathanson, 1978). In addition, the use the culture control also means high horizontal relationship and informal communication (Martinez and Jarillo, 1989). Drawn on Ghoshal, Korine, and Szulanski (1994), informal interpersonal relationships among managers in a MNC’s different units have positive relationship with subsidiarysubsidiary communications.

The greater the MNC’s environmental complexity, the greater the MNC’s internationalization extent achieved. According to the Athanassiou and Nigh (1999), the higher the internationalization degree of a MNC, the higher the dependence on the international business advice network of a MNC. This idea is similar to Edstrom and Galbraith’s (1977) international verbal information network. In a similar line of argument, according to Jarillo and Martinez (1990) and Taggart (1999), because active subsidiary need to achieve both global integration and local responsiveness, it is reasonable to infer that its TMT is highly dependent on formal and informal way of communication, high communication frequency, and emphasizing on culture/normative control, etc.

**Hypothesis 2:** Subsidiary role affects the interaction degree of TMT

**Hypothesis 2-1:** Active subsidiary’s social integration of TMT is higher than that of autonomous and receptive subsidiaries

**Hypothesis 2-2:** Active subsidiary’s communication frequency of TMT is higher than that of autonomous and receptive subsidiaries

**Hypothesis 2-3:** Active subsidiary’s informal communication of TMT is higher than that of autonomous and receptive subsidiaries

### 3.2 Nationalities of MNC

According to the research of Yip, Johansson and Roots (1997), nationality of a parent company will affect this firm’s entry sequence. MNCs from Western European countries are the earliest, the United States is the next in order, and Japan is the last. Nationality of the parent company also will affect organizational structure, management process and culture, etc. Hofstede’s (1980) study not only pointed out the cultural differences among countries, he also observed that the national culture is also a cornerstone to organizational culture (Hatch, 1997), different nations revealing different styles of management. Calori and Dufour’s (1995) study stated that business enterprises of the U.S.
treat employee as resources: firms can abandon them only rest on firms own demands. They also stated that the European management style is built on individualism and Japanese management style is built on collectivism. After a serious study on the emergence of large business enterprises in the late nineteenth and early twentieth century, Chandler (1990) suggested that different nationalities and different firms’ development path have effects on management process and strategies. Three kinds of capitalisms are reached from Chandler’s (1990) study: family capitalism, which is featured by British; Collective capitalism, which is characterized by Japan; and managerial capitalism, which is prominent in the U.S. In Bartlett and Ghoshal’s (1989) view, many European companies are similar to British management style. Further, according to Hofstede’s (1980) analysis, it is broadly acceptable to cluster nationalities into Japan, European countries, and the U.S.

Stinchcombe (1965) suggested the imprinting effect, which means different organizational structures also follow the time in which organization are created. A organizational structure is affected by its own history, traditions, and founders, and with the result that organizational arrangements will continue to follow the past (Chung, 2002). Bartlett and Ghoshal (1989) argued that a country’s history, infrastructure, and culture will go deep into each level lived in this nation and also shape the structure and process of an organization. Bartlett and Ghoshal also developed the administrative heritage concept, which means that different nationalities of MNC also affect MNCs’ organizational structures.

According to Calori and Dufour (1995), when compared with American and Japanese business firms, European business firms tend to localize subsidiaries, prone to promote local managers to top management team. In addition, Hickson and Pugh (2000) also pointed out that Japanese firms prefer lifetime-employment, emphasizing on internal promotion, and judging educational level and organizational tenure for further promotion. But American companies are toward high individualism-oriented and high achievement-oriented. It may be reasonable to expect that individuals with higher capabilities but lower educational level and organizational tenure at American companies will be promoted earlier and easier than Japanese companies. Given that the United States’ and Japan’s management philosophies and practices are often characterized as two extremes on the spectrum of dimensions of management, the European style presents a more balanced way between the two models (Calori and Dufour, 1995).

**Hypothesis 3:** Nationalities of MNC affect characteristics of TMT

Compared to American and European firms, Japanese firms were group-oriented, tending to integrate opinions of every manager (Hickson and Pugh, 2000). Calori and Dufour (1995) also showed that European business used more informal communications than American and Japanese ones. Besides, Casse (1982), after comparing Japanese’s and Americans’ negotiation style, noted that Japanese are group-oriented going by consensus and taking step by step approach to decision making; American firms are teamwork oriented providing inputs to a decision maker and have methodically organized decision making. According to Hofstede’s (1991) classifications, the power distance of Japanese is higher than that of European and North American, and Japanese prefer collectivism. Fields (1995) also said that a social order characterized by vertical relationship is based on patrimonial concept and primogeniture.

**Hypothesis 4:** Nationalities of MNC affect interaction of TMT

**Hypothesis 4-1:** TMT’s social integration at a subsidiary with Japanese nationality is higher than that of subsidiaries with American and European nationalities

![Figure 1. Conceptual Framework](image-url)
Hypothesis 4-2: TMT’s communication frequency at a subsidiary with Japanese nationality is higher than that of subsidiaries with American and European nationalities

Hypothesis 4-3: TMT’s informal communication at a subsidiary with European nationality is higher than that of subsidiaries with Japanese and American nationalities

4. Methods

4.1 Participants and Procedures

Three initial selection criteria were used to define a subsidiary: (1) at least 50% of equity is from foreign investors; (2) size is above 30 people; (3) it must have operated more than 1 year. In order to approximate, Cyert and March’s (1963) notion of the dominant coalition and avoid the difficulties of defining top management team members in subsidiaries from different nationalities and industries, we followed Smith et al. (1994) and asked each manager to identify ‘real’ members in top management team. According to Dun and Bradstreet’s Foreign Enterprises in Taiwan (2000), 292 subsidiaries were selected. After initial contacts by phone conversations in advance, 165 subsidiaries agreed to complete the questionnaire. Follow-up phone conversations were initiated after two weeks. Top team members were asked to complete the questionnaires. A total of 46 usable questionnaires were returned from 165 requested from subsidiaries and the rate of return is 27.9%, higher than 10% to 12% typical mail surveys to top managers in U.S. firms (Hambrick, Geletkanycz, and Fredrickson, 1993). Our sample also passed the goodness of fit test which examine the representative of the usable sample (Chi-Square = 4.258).

4.2. Measures

We developed three categories of variables in this questionnaire: Subsidiary roles, TMT demographic characteristics, and TMT interaction. Variables were measured by Likert-type questionnaire items (7-point scale), only TMT demographic characteristics were not, such as education level and nationalities. Variables used in this study were all developed from related studies with minor revisions in order to suit local conditions in Taiwan. And we also performed pretest and revised wording of this questionnaire. Therefore, the content validity of this questionnaire is established.

In accordance with Jarrillo and Martinez (1990), Roth and Morrison (1990), Taggart (1997, 1998), and Hannon, Huang and Jaw (1995), we utilize two categories of variables, representing ‘global integration’ and ‘local responsiveness’ to measure subsidiary roles and, then, perform cluster analysis in order to obtain subsidiary roles. Global integration is 5 items (α = .8933), local responsiveness is 4 items (α = .777). It was found that there is a good three-group clustering from 46 samples. Active role are composed of 21 subsidiaries; receptive role is made up of 16 subsidiaries; and autonomous role contains 9 subsidiaries. The sample also showed that 19 subsidiaries are from American, 14 subsidiaries are from European countries, and 13, Japan.

TMT demographic characteristics were measures by four variables: nationalities, age, education level, and organizational tenure. The measurement of these variables were developed by Michel and Hambrick (1992) and Wiersema and Bantel (1992). We defined nationalities as including U.S., European, and Japan. Education level were categorized in terms of Ph.D., master, bachelor, professional school, senior high school and below, from 1 to 5 respectively. Descriptive statistics were performed. Top team ranged in size from 6 to 7 members. Top team average ratio of local managers was 0.6, with variance being 0.34. The average age of top team was 47.1, with variance being 4.94. Average organizational tenure of top team was 13.85, with variance being 0.51. Average education level is 2.91, with variance being 0.51.

TMT interaction measurement was based on Smith et al. (1994). Three groups of variables were: (1) social integration was composed of 9 items (α = .8774); (2) communication frequency included 7 items (α = .8729); (3) informal communication was made up of 3 items (α = .7688). The average social integration is 4.81, with variance being 0.97; average communication frequency is 5.1, with variance being 1.14; informal communication frequency is 2.89, with variance being 0.89.

5. Results

We performed analysis of variance in order to obtain the effects of subsidiary roles and nationalities on TMT characteristics. If the results are with statistical significance, thus, we utilize post hoc comparisons. Table 1a reports that subsidiary roles have a significant effect only on average educational level of TMT (F=3.402, p=0.043). Table 1b indicates that autonomous subsidiary’s average educational level of TMT is greater than that of active subsidiary (p=0.014). Because, in this study’s questionnaire design, the higher the value of average educational level means lower the education received, the autonomous subsidiary’s educational level is higher than that of autonomous subsidiary.
Table 1a. Effects of Subsidiary Roles on Characteristics of TMT

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Variables</th>
<th>F value</th>
<th>Significance</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio of local managers</td>
<td>0.325</td>
<td>0.724</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average age</td>
<td>1.019</td>
<td>0.370</td>
<td></td>
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<tr>
<td>Average educational level</td>
<td>3.402</td>
<td>0.043*</td>
<td></td>
<td>3&gt;1</td>
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<tr>
<td>Average tenure</td>
<td>0.360</td>
<td>0.700</td>
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*p<.05

Table 1b. Post-hoc Comparison of Average Educational level

<table>
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<td>Active vs. autonomous</td>
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<td>Receptive vs. autonomous</td>
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<td>Receptive vs. active</td>
<td>+</td>
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*p<.05

Table 2a. Effects of Subsidiary Roles on Interaction of TMT

<table>
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<th>Variables</th>
<th>F value</th>
<th>Significance</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social integration</td>
<td>3.543</td>
<td>0.039*</td>
<td>1&gt;3</td>
<td></td>
</tr>
<tr>
<td>Communication frequency</td>
<td>3.058</td>
<td>0.058+</td>
<td>2&gt;3</td>
<td></td>
</tr>
<tr>
<td>Informal communication</td>
<td>0.534</td>
<td>0.591</td>
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+p<.1, *p<.05

Table 2b. Post-hoc Comparison of Social Integration

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<th>Sign</th>
<th>Significance</th>
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<td>Active vs. autonomous</td>
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<td>Receptive vs. autonomous</td>
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<td>Receptive vs. active</td>
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*p<.05

Table 2c. Post-hoc Comparison of Communication Frequency

<table>
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<th>Sign</th>
<th>Significance</th>
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<tr>
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<tr>
<td>Receptive vs. autonomous</td>
<td>+</td>
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<tr>
<td>Receptive vs. active</td>
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+p<.1, *p<.05

6. Effects of subsidiary roles on interaction of TMT

Table 2a shows that subsidiary roles have significant effect on interaction of TMT (F=3.543, p=.039). Post hoc comparison indicates that (please see Table 2b) active subsidiary’s integration of TMT is higher than that of autonomous subsidiary (p=.012). The effect of subsidiary role on communication frequency of TMT is also significant (F=3.058, p=.058). Table 2e reports that active subsidiary’s and receptive subsidiary’s communication frequency of TMT is higher than that of autonomous subsidiary (p=.019, p=.060), and the difference of communication frequency of TMT between active subsidiary and receptive subsidiary is not significant. There is no significant effect between subsidiary roles and TMT’s informal communication.

7. Effects of Nationalities of MNC on Demographic Characteristics of TMT

Table 3a shows that nationalities have effect on average age of TMT (F=5.602, p=.007). Table 3b also shows that the average age of TMT at Japanese subsidiary is higher than that of American subsidiary (p=.002) and European subsidiary (p=.002). There is no significant effect between a subsidiary’s TMT with American nationality and that with European nationality.

Table 3a shows Nationalities have effects on the average educational level of TMT (F=2.841, p=.071). Further, Table 3c shows that the average educational level at Japanese subsidiary is higher than that of American counterpart (p=.023). In this study, because the higher the value of average educational level means
lower the education received, the American subsidiary’s educational level is higher than that of Japanese subsidiary. Table 3a also shows that nationalities have significant effects on average organizational tenure of TMT (F=4.510, p=.017) and Table 3d indicates that the average organizational tenure of TMT at Japanese subsidiary is higher than that of American subsidiary (p=.006). There is no significant effect between nationalities of MNC and the ratio of local managers of TMT.

8. Effects of Nationalities of MNC on Interaction of TMT

Table 4 reports that the effect of nationalities of MNC on interaction of TMT is not significant.

9. Discussions

After synthesizing all these results, we propose the following arguments. First, in the part of subsidiary roles and demographic characteristics of TMT: this study, based on Jarillo and Martinez (1989), Roth and Morrison (1990), and Taggart (1997, 1998) categorizes three types of subsidiaries (i.e. autonomous, active, and receptive) by the dimensions of “local responsiveness” and “global integration.” In this research, we find that most subsidiaries in Taiwan are active; this result also indicates that subsidiaries in Taiwan take an important role in the global networks of MNCs and face the demands of global integration and local responsiveness. Autonomous subsidiaries in Taiwan are scare and we can infer that these subsidiaries’ resources exchange and knowledge transfer among other subsidiaries are rare.

Our study also reveals that the effect of subsidiary role on demographic characteristics of TMT, except educational level, is not significant. We may interpret this as following: different organizational tasks follow different subsidiary roles. But the issues and decisions

<table>
<thead>
<tr>
<th>Table 3a. Effects of Nationalities of MNC on Characteristics of TMT</th>
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<tr>
<td>Subsidiary roles : 1—active 2—receptive 3—autonomous</td>
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<td>Characteristics of TMT</td>
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<table>
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<tr>
<th>Table 3b. Post-hoc Comparison of Average Age</th>
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<td>Active vs. autonomous</td>
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<tr>
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<td>sign</td>
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<td>active vs. autonomous</td>
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<td>receptive vs. active</td>
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**p<.01

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<th>Table 4. Nationalities of MNC on Interaction of TMT</th>
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<tr>
<td>Nationalities : 1—American 2—Japan 3—European</td>
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<tr>
<td>Dimensions</td>
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<tr>
<td>Interaction of TMT</td>
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<tr>
<td>Communication frequency</td>
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<td>Informal communication frequency</td>
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that TMT needs to conquer are extensive and important; this means that they need well-prepared or capable high-level managers to handle with. This is why most of these results are not significant. This study also shows that subsidiary role has significant effect on average educational level of TMT. And active subsidiaries have higher average educational level than that of autonomous subsidiaries. This means that the active subsidiaries’ tasks are more complicated than autonomous counterparts. This is why active subsidiaries need higher educational degree of TMT to fulfill these tasks.

These results also agree with the inferences from Bantel and Jackson (1989), Dollinger (1984), Hambrick and Mason (1984), and Wiersema and Bantel (1992). In accordance with Hambrick and Mason (1984), cognitive ability is correlated with educational level. And hence, a team’s ability to create solutions to complex problems is associated with top management team’s educational level (Bantel and Jackson, 1989). Furthermore, because the business environments of active subsidiaries are with higher complications and uncertainty, higher cognitive ability is needed in top team members. Therefore, it is reasonable to infer that higher educational degrees have been found among top team members.

Second, in the part of subsidiary role and interaction of TMT; this paper, based on Smith, Smith, Olian, Sims, O’Bannon and Scully (1994), taking social integration, communication frequency, and informal communication, discusses the TMT interaction degree of different subsidiary roles. The empirical results show that the social integration of active subsidiaries is higher than that of autonomous ones. The TMT communication frequency of active and receptive subsidiaries is higher than that of autonomous ones. The discrepancy between active subsidiaries and receptive subsidiaries is not significant. It is clear as seen in Table 5.

Our study also shows that the active subsidiaries’ social integration of TMT and communication frequency of TMT is both high. The TMT social integration and TMT communication frequency for autonomous subsidiaries are both low. There are two different situations for receptive subsidiaries, one is when TMT social integration is low and TMT communication frequency is high, the other is when TMT social integration is high and TMT communication is high.

Third, in the part of nationalities of MNC and characteristics of TMT: based on Hickson and Pugh (2000), we may infer that average age and average tenure of Japanese subsidiaries’ employee are higher than that of American and European ones. But there is no study, which makes a comparison among traits of TMT in subsidiaries of different nationalities. This study shows that both average age and tenure of TMT in subsidiary of Japanese origin are higher than that of American ones; average educational level of TMT at subsidiary with Japanese nationality is lower than that of subsidiaries with American nationality. It is not hard to infer from these results that top managers at Japanese subsidiary are promoted through internal organizational channels and this promotion is largely based on organizational tenure, that is, TMT members are a closed set and remained unknown.

Our study also shows that there is no significant difference of demographic characteristics of TMT between European subsidiaries and Japanese subsidiaries, and between European subsidiaries and American subsidiaries. However, we may ascribe this result into this reason: there is distinct difference between Japanese and American management style. European management style is somewhat in the middle of the two sides (i.e. Japanese management style is based on collectivism, United States management style, individualism, and European management style, individual-discrepancy oriented collectivism).

Additionally, taking the subsidiary role’s point of view, we find that there is significant difference between active subsidiaries and autonomous subsidiaries in social integration degree of TMT and communication frequency of TMT. According to Birkinshaw and Hood (1998a), subsidiary roles were in evolution. They viewed the change of subsidiaries’ capabilities and subsidiaries’ charters to examine the evolution of subsidiary roles, arriving at five important types of path: Parent-Driven Investment (PDI), Subsidiary-Driven Extension (SDE), Subsidiary-Driven Charter Reinforcement (SDR), Parent-Driven Divestment (PDD), Atrophy through Subsidiary Neglect (ASN). They thought that if subsidiaries are not enhancing their capabilities in MNC, these subsidiaries will face the decrease of importance.

Therefore, we may infer that subsidiaries have to evolve from autonomous role toward active role in order to obtain advanced charters from MNC headquarters (Birkinshaw and Hood, 1998a). Since subsidiary role has a significant effect on educational level of TMT, social integration of TMT, and communication frequency of TMT, our study suggests that autonomous subsidiaries should enhance educational level, social integration degree and communication frequency in order to cope with the authority and responsibility shift after subsidiary role’s change. For those subsidiaries in

<table>
<thead>
<tr>
<th>Subsidiary roles</th>
<th>Active</th>
<th>Receptive</th>
<th>Autonomous</th>
</tr>
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<tbody>
<tr>
<td>TMT social integration frequency</td>
<td>High</td>
<td>Low or high</td>
<td>Low</td>
</tr>
<tr>
<td>TMT communication frequency</td>
<td>High</td>
<td>High</td>
<td>Low</td>
</tr>
</tbody>
</table>

Table 5. Subsidiary Role and Interaction of TMT
Taiwan, the educational level of TMT is affected both by subsidiaries’ role and nationality, that is, headquarters and subsidiaries must both realize the importance of the increase of educational level of TMT.

Taking nationality’s point of view, our empirical results show that average age of TMT and organizational tenure of TMT at Japanese subsidiary are higher than that of American and European subsidiaries. This result re-confirms Japanese management style. The main merit of higher average age is that TMT members are familiar with their daily operations and easy to reach conclusions, but main drawback of this is lack of innovative ideas and entrepreneurship. Therefore, we here suggest that Japanese subsidiaries should take a much open minded strategy to promote TMT members, combining the human resource practices of American subsidiaries and European subsidiaries. Our results also show that there is no significant difference among these subsidiaries with different nationalities in the ratio of local managers. We may infer that, with the increasing demand of subsidiaries’ local responsiveness, the promotion of local capable elites to a subsidiary’s TMT is more important to these MNCs no matter what nationalities are.

For further research, we suggest that longitudinal research should also be included. Longitudinal research provides a more dynamic view to picture the subsidiary roles, suggesting possible directions for future development. Besides, if further research can survey every member in TMT, we may be free from bias made by team members who are not familiar with each other. We also suggest that it is more representative to take headquarters’ TMT in different countries as a further research target for discussing the demography of TMT.

10. Conclusions

A number of studies on subsidiaries of MNC are increasing in these highly competitive international environments. This study, focusing on subsidiaries of MNC in Taiwan, examining the influence of the roles of subsidiaries and the nationalities of MNC on subsidiaries’ TMT demography, is trying to make complement to a underexplored research topic. Through the empirical results, we know that subsidiary roles do have effects on some traits of TMT and interaction of TMT. Nationalities of MNC do affect some traits of TMT. These results also reflect that it is an important need for these subsidiaries to meet severe environmental demands by the way of adjusting their TMT compositions. Our study is meaningful for these multinational corporations, because how to respond local environments and challenge international environments is a serious topic. Our study is also meaningful for researchers, because we need more comprehensive studies on the important issues of subsidiaries of MNC.

References


