Toward a Dynamic Process Model of Staffing Composition and Subsidiary Outcomes in Multinational Enterprises

Yaping Gong*

Department of Management of Organizations, Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong

Received 15 October 2001; received in revised form 21 April 2002; accepted 21 June 2002

Subsidiary staffing composition is defined as the distribution of parent country nationals (PCNs), host country nationals (HCNs), and third country nationals (TCNs) in subsidiaries of multinational enterprises (MNEs). Subsidiary staffing composition varies along the dimension of nationality heterogeneity. The MNE staffing literature has mainly focused on expatriate PCNs and individual-level outcomes. This article develops a dynamic process model in which heterogeneity of staffing composition influences affective, behavioral, cognitive, and strategic outcomes, which in turn affect subsidiary financial performance. Drawing upon organizational learning and social identification theories, this article offers testable propositions regarding relationships between staffing composition and subsidiary outcomes, and changes in these relationships over time. Finally, it proposes a preliminary research program to test the model.

© 2002 Elsevier Science Inc. All rights reserved.

Multinational enterprises (MNEs) can staff their overseas subsidiaries with parent country nationals (PCNs), host country nationals (HCNs), third country nationals (TCNs), or any mix of the three (Dowling, Welch & Schuler, 1999). Subsidiary staffing composition refers to the distribution of PCNs, HCNs, and TCNs in subsidiaries of MNEs. Staffing composition varies along the dimension of nationality heterogeneity. The most heterogeneous staffing composition has all the national groups with each group taking equal proportion of the workforce or top management, whereas the most homogeneous staffing composition has only one national group. The MNE staffing literature has mainly focused on expatriate PCNs (Harvey, Speier & Novicevic, 2001). A subsidiary faces not only a local environment, but also the parent firm and country (Rosenzweig & Singh, 1991). To cope with this diverse...
environment, a subsidiary’s staffing composition must reflect the environmental composition (Weick, 1979). Indeed, as globalization increases, a multinational team or workforce has become a reality (Adler, 1997). There is a strong need to link staffing composition with subsidiary-level outcomes (Schuler, Budhwar & Florkowski, 2002).

Strategic international human resource management (SIHRM) theorists suggest that MNEs utilize HR practices to achieve learning, innovation, flexibility, and corporate integration (Schuler, Dowling & Cieri, 1993; Welch & Welch, 1997). Learning refers to the acquiring of knowledge or skill. It encompasses both the acquisition of “know-how,” i.e., the physical ability to take some action, and the acquisition of “know-why,” i.e., the ability to articulate conceptual understanding of an experience (Kim, 1993). Innovation includes any internally generated and externally adopted device, system, policy, program, process, product, or service perceived as new by a subsidiary (Damanpour, 1991). Integration of globally dispersed subsidiaries has long been regarded as a central issue for MNEs (Martinez & Jarillo, 1989; Prahalad & Doz, 1987), and can be achieved through the processes of coordination and control (Katz & Kahn, 1978).

Staffing of subsidiaries with expatriate PCNs has been considered a major mechanism for corporate integration (Harzing, 2001; Martinez & Jarillo, 1989) as well as a conduit for transferring knowledge from parent firms to subsidiaries (Downes & Thomas, 2000). However, research on the role of staffing composition in integration and learning is sporadic. Harvey, Speier and Novicevic (1999), in their discussion of inpatriation, suggest the benefit of innovation associated with a diverse workforce in the domestic organizations of an MNE. Schuler et al. (1993) argue that a mix of PCNs, HCNs, and TCNs affects MNEs’ ability to achieve learning, innovation, and corporate integration. A Conference Board report suggests that foreign citizens comprise 20–25% of the top management in firms that view themselves as most successful or global, compared to a 10% average in other firms (Csoka & Hackett, 1998). There is a need to systematically conceptualize the role of staffing composition in learning, innovation, and integration within the subsidiaries of MNEs.

Research in organizational demography and diversity suggests that work unit or group heterogeneity increases innovation but decreases integration (Jackson, May & Whitney, 1995; Milliken & Martins, 1996; Williams & O’Reilley, 1998). Heterogeneity affects group, work unit, and firm performance through intermediate processes such as creativity and integration (Smith, Smith, Olian, Sims, O’Bannon & Scully, 1994). However, little research has been done on nationality heterogeneity (Hambrick, Davidson, Snell & Snow, 1998). Managing a multinational team or workforce appropriately to simultaneously exploit multicultural synergy and reduce disintegration has been suggested as a major challenge facing subsidiaries of MNEs (Adler, 1997; Bartlett & Ghoshal, 1998). There is a great need for theoretical work on multinational staffing composition.

Organizational learning (Cohen & Levinthal, 1990; Crossan, Lane & White, 1999) and social identification theories (Tajfel, 1978; Tajfel & Turner, 1986) provide useful theoretical bases for conceptualizing subsidiary staffing composition in MNEs. A subsidiary needs resources from and knowledge about both local and parent environments to be effective (Gupta & Govindarajan, 1991). A subsidiary obtains host country-specific knowledge, e.g., knowledge of local market conditions, customer preferences, and culturally acceptable management practices, to compete in the local environment (Inkpen & Beamish, 1997; Luo & Peng, 1999). A subsidiary often acquires technology and management expertise from
the parent firm and country to enhance its strategic competitiveness (Downes & Thomas, 2000; Inkpen & Beamish, 1997). In a truly global MNE, a subsidiary also obtains knowledge generated in units located in third countries (Bartlett & Ghoshal, 1998). As described through the lens of organizational learning theory, a subsidiary with a heterogeneous staffing composition has prior related knowledge pertinent to each segment of its environment, and therefore, is able to absorb outside sources of knowledge from its total environment (Cohen & Levinthal, 1990). The diverse sources of knowledge coexisting within a subsidiary lead to greater innovation that is a source of superior performance (Cohen & Levinthal, 1990).

Within a subsidiary, multiple national identities are likely to coexist along with the subsidiary’s organizational identity (Adler, 1997). Nationality as an impermeable attribute provides the dominant focus for individual identification in international firms (Salk & Shenkar, 2001; Tajfel, 1978). According to social identification theory, a heterogeneous staffing composition provokes nationality-based categorization and identification, which in turn leads to affective and behavioral disintegration within a subsidiary, and therefore, lowers subsidiary performance (Tajfel, 1978; Tajfel & Turner, 1986; Turner, 1987). At the MNE level, a heterogeneous staffing composition, as compared to an expatriate PCN-dominant approach, endangers the integration of subsidiaries into the parent organization as a whole. Kobrin (1988) points out that the reduction of expatriates in American MNEs has made strategic control difficult for these institutions.

Time provides a convergence point for the two competing forces. Over time, a subsidiary learns how to manage a heterogeneous workforce or team. Through continued contacts, individuals of different nationalities develop positive attitudes toward each other (Allport, 1954), leading to fewer conflicts and better cooperation. A subsidiary gradually develops a hybrid culture, an emergent and simplified set of rules, norms, expectations, and roles that individuals of all nationalities have contributed to, understand, share, and act upon (Earley & Mosakowski, 2000). A hybrid culture strengthens the subsidiary’s organizational identity and transcends national group identities within a subsidiary (Kramer & Brewer, 1984). A hybrid culture also accommodates diversity and provides a basis for tapping into the innovative potential associated with a heterogeneous staffing composition (Earley & Mosakowski, 2000).

The objective of this article is to develop a model of staffing composition and subsidiary outcomes in MNEs. It discusses the kinds of negative and positive outcomes associated with heterogeneous staffing composition, and changes in these outcomes over time. This article begins with a review of the literature associated with MNE staffing and organizational demography and diversity. It then presents a dynamic process model of staffing composition and subsidiary outcomes. Testable propositions follow. Finally, it proposes a research program to test the model.

Literature Review and Model Development

MNE Staffing

In this article, PCNs are those who are nationals of the country where the MNE is headquartered. HCNs are those who are nationals of the country where the subsidiary is located.
located, where that subsidiary is operated by a MNE headquartered in another country. TCNs are those who are nationals of one country, working in a second country, and employed by a MNE headquartered in a third country.

The bulk of the MNE staffing literature has focused on staffing issues related to expatriate PCNs (Harvey et al., 2001). Numerous studies have examined expatriate selection (e.g., Mendenhall, Dunbar & Oddou, 1987), cross-cultural training and development (e.g., Black & Mendenhall, 1990), cross-cultural adjustment, and expatriate failure issues (e.g., Black, Mendenhall & Oddou, 1991; Tung, 1987). A small body of literature is devoted to staffing with HCNs and TCNs, mostly from the comparative advantage perspective (Dowling et al., 1999). For example, employing PCNs increases subsidiary compliance with parent objectives and policies, but creates expatriate adjustment and failure problems (Dowling et al., 1999; Kobrin, 1988).

The current approach has largely missed the fact that a mix of staffing sources exists in many subsidiaries and that this mix itself generates compositional effects above and beyond the effect of nationality per se (Pfeffer, 1983). Furthermore, the MNE staffing literature has mainly focused on individual-level issues and outcomes. There is a strong need to link staffing composition with behavioral and financial outcomes at the subsidiary level (Schuler et al., 2002).

As an institution nested in a diverse environment (Rosenzweig & Singh, 1991), a subsidiary’s staffing composition must reflect the environmental composition (Weick, 1979). Such matching increases a subsidiary’s ability to gain resources and support from its total environment (Pfeffer, 1973). Indeed, a multinational workforce or team has become a reality (Adler, 1997). With regards to upper management, a Conference Board report suggests a trend toward increasing the use of non-national directors. Between 1995 and 1998, the percentage of companies with non-national directors increased from 39 to 60% (Alexand & Esser, 1999). Legitimizing diversity and managing it appropriately have become the keys to success and major challenges facing MNEs (Bartlett & Ghoshal, 1998). However, there is a severe paucity of integrated theory and research on subsidiary staffing composition (Hambrick et al., 1998). We can say little about the dynamics of heterogeneous staffing composition and its implications for subsidiary outcomes. Fortunately, both the SIHRM literature and the organizational demography and diversity literature yield some initial insights into these questions.

SIHRM

SIHRM theorists have recently proposed learning, innovation, and integration as the objectives for SIHRM policies and practices (Schuler et al., 1993; Welch & Welch, 1997). Subsidiaries learn not only from the parent firm, but also from the host environment and even third country sources (Rosenzweig & Singh, 1991). Learning from the host country increases host country-specific knowledge, e.g., knowledge of local market conditions, customer tastes, and cultural values, and therefore, enhances subsidiary performance in the host country (Luo & Peng, 1999). Learning from the parent country and firm improves subsidiary technological and managerial capabilities (Inkpen & Beamish, 1997). Indeed, staffing of subsidiaries with expatriate PCNs has traditionally been viewed as a way to transfer knowledge from parent firms to subsidiaries (Downes & Thomas, 2000). In the
innovation-driven stage of global competition, subsidiaries increasingly rely on innovative products and services that can simultaneously meet local demands and provide economies of scale to gain superior performance (Bartlett & Ghoshal, 1998).

Several authors have suggested the potential role of staffing in learning and innovation. Pucik (1988) argues that accumulation of invisible assets through learning should be the key principle guiding the international staffing strategy, and that firms need to have people in place to learn and transfer knowledge. Schuler et al. (1993) propose that MNEs maintain an appropriate mix and flow of PCN, HCNs, and TCNs in order to balance the needs of autonomy, coordination, and control, and thus, enhance global competitiveness, flexibility, and learning. Welch and Welch (1997) argue that MNEs should develop mechanisms that support diversity of perspectives so as to be responsive, flexible, and innovative, and that a group of inculcated expatriate managers may actually be a barrier to these objectives. Harvey et al. (1999) point out one benefit of inpatriation: diversity of perspectives in developing policies, strategies, and plans for competing in developing countries. Their work, however, has focused on the domestic organizations of a MNE instead of on overseas subsidiaries.

A MNE “consists of a group of geographically dispersed and goal-disparate organizations that include its headquarters and the different national subsidiaries” (Ghoshal & Bartlett, 1990: 603). The integration of subsidiaries into the parent organization has long been a major challenge facing MNEs (Martinez & Jarillo, 1989). Integration creates inter-unit linkages among subsidiaries and between subsidiaries and headquarters (Schuler et al., 1993). Integration is achieved through the processes of control and coordination (Katz & Kahn, 1978). Control refers to the processes that bring about adherence to parent goals or targets through the exercise of power, authority, or indoctrination of corporate values and norms (Etzioni, 1965; Jaeger, 1983). Control occurs from the parent’s perspective, and is a direct intervention into subsidiary operations. Coordination refers to collaborative actions taken to achieve a unity of effort within a MNE (Lawrence & Lorsch, 1967). Coordination is an act of mutual adjustment and is not characterized by direct intervention.

Staffing of subsidiaries with PCNs affects both the identification of subsidiaries with the worldwide organization and the control and coordination of far-flung international operations (Kobrin, 1988; Schuler et al., 1993). While staffing with expatriate PCNs has been recognized as a formal integration mechanism (Martinez & Jarillo, 1989), one informal aspect, that is, the transfer of corporate culture and values (Jaeger, 1983), has also received a great deal of attention. Ghoshal and Nohria (1993) label this informal aspect “normative integration,” or the integration of subsidiaries into the parent organization by socializing managers into a set of shared values, goals, and beliefs that then shape their behaviors and perspectives. Welch and Welch (1997) argue that informal cultural control may create conformity and barriers to change in subsidiaries of MNEs. An implication is that an expatriate PCN-oriented staffing approach may compromise innovation and flexibility.

Summary. A model of subsidiary staffing composition should incorporate learning, innovation, and integration as the major objectives of subsidiary staffing. Research has focused on the integration of subsidiaries into the MNE system, and most of the MNE
staffing literature has focused on expatriate PCNs. The compositional effect of staffing on integration is little known, and integration within subsidiaries has received little attention. A particular attention to learning, innovation, and integration at the subsidiary level seems to be necessary.

**Organizational Demography and Diversity**

The organizational demography and diversity literature focuses on the impact of group or work unit composition in individual attributes on group or work unit processes and outcomes (Jackson et al., 1995; Pfeffer, 1983; Williams & O’Reilley, 1998). These attributes include readily detectable ones such as sex and race as well as underlying ones such as values and knowledge (Jackson et al., 1995; Milliken & Martins, 1996).

The compositional property of groups or work units is important for understanding group processes and outcomes (Pfeffer, 1983). Somewhat similar to the SIHRM research, the organizational demography and diversity literature suggests creativity and integration as the intermediate outcomes of group or work unit composition (Hambrick, 1994; Jackson et al., 1995; Williams & O’Reilley, 1998). In addition, this literature has a within-unit focus and distinguishes between affective and behavioral aspects of integration. The affective aspect of integration (or cohesion) is typically defined as the degree to which members of a group or work unit are attracted to each other (Shaw, 1981), whereas behavioral integration refers to the degree to which members engage in mutual and collective interaction (Hambrick, 1994). The basic conclusion is that heterogeneous groups or work units tend to be more creative, less integrated, and have higher conflicts and turnover (Bantel & Jackson, 1989; Jackson et al., 1995; Milliken & Martins, 1996; Pelled, Eisenhardt & Xin, 1999).

The literature also suggests other process variables such as work effort, communication, and cooperation (Milliken & Martins, 1996). Communication and cooperation can be broadly included in behavioral integration (Hambrick, 1994). These process variables or intermediate outcomes can be parsimoniously classified into affective (e.g., cohesion, emotional conflict), behavioral (e.g., turnover, behavioral integration), and cognitive outcomes (e.g., creativity, range of perspectives) (Jackson et al., 1995).

There is a severe paucity of integrated theory and research on nationality heterogeneity (Hambrick et al., 1998). One possible reason for this deficiency is that very little nationality heterogeneity exists in domestic organizations. While nationality is a readily detectable attribute, it is associated with underlying attributes such as assumptions, values, attitudes, and cognitive schemas. In a study of 800 middle- and upper-level managers from the US and eight European nations, Laurent (1983) found that managers’ national origins strongly influence their attitudes toward managerial and organizational roles and functions. Case study evidence suggests that nationality acts as the dominant sense-making vehicle and focus for identification in international joint ventures (Salk & Shenkar, 2001). This research points to the potentially powerful impact of nationality heterogeneity.

**Summary.** Heterogeneity in demographic variables affects affective, cognitive, and behavioral outcomes, which in turn influence group or work unit effectiveness. Nationality is a salient category in the international setting. Heterogeneity in nationality may activate
categorization and identification processes that affect group or work unit functioning and performance.

**Model Development**

Subsidiary staffing composition refers to the distribution of PCNs, HCNs, and TCNs in subsidiaries of MNEs. Subsidiary staffing composition varies along the dimension of nationality heterogeneity. The most heterogeneous staffing composition has equal numbers of PCNs, HCNs, and TCNs in a subsidiary’s workforce or top management. Nationality heterogeneity is different from cultural distance, which is an indication of the extent to which two cultures differ from each other. Nationality heterogeneity also differs from cultural diversity. A group can be nationally diverse but culturally similar and vice versa.

Drawing upon the organizational demography and diversity literature, I propose affective and behavioral outcomes as the process variables that affect subsidiary performance. Affective process variables include identification, cohesion, and emotional conflict, etc. Behavioral process variables include behavioral integration, work effort, and turnover. Cohesion (affective integration) and behavioral integration represent integration at the subsidiary level. Drawing upon the SIHRM literature, the article proposes control and coordination (or strategic integration) as the strategic MNE-level process variables. Finally, this article proposes cognitive outcomes as subsidiary-level process variables on the basis of both the SIHRM literature and the organizational demography and diversity literature. The key cognitive variables include learning and innovation. The corollary of innovation is organizational flexibility, but to achieve parsimony, flexibility is not considered separately here. Affective, behavioral, and cognitive process variables in turn influence subsidiary financial performance. The model in Figure 1 summarizes the above discussion.

Group or workforce heterogeneity has a direct effect on subsidiary performance in addition to its indirect effect via process variables (Smith et al., 1994; Williams & O’Reilley, 1998). An individual’s affective reactions to a heterogeneous staffing composition affect his or her behaviors. An individual who is less psychologically linked with a subsidiary is likely to withdraw work efforts and turn over (Milliken & Martins, 1996). Thus, a connection between affective and behavioral outcomes is justified and the model specifies a direct link between staffing composition and subsidiary performance. The relationships between multinational staffing composition and subsidiary outcomes may change over time (Earley & Mosakowski, 2000; Watson, Kumar & Michaelsen, 1993). Thus, the model includes time as a moderator.

The model has five features. First, it deviates from the traditional focus on expatriate PCNs by focusing on staffing composition. Second, it deviates from the traditional emphasis on individual outcomes by exploring outcomes at the subsidiary level. Third, it explores the issue of integration within subsidiaries in addition to the traditional focus on integration of subsidiaries into the parent organization as a whole. Fourth, it highlights the need to balance the cognitive outcomes of learning and innovation with the strategic outcome of integration. It also underscores the balance between affective and cognitive outcomes. Finally, it explicitly incorporates a temporal dimension in theorization.
Figure 1. A dynamic process model of staffing composition and subsidiary outcomes in MNEs.
Development of Propositions

The propositions presented in this section will be discussed in terms of (1) affective and behavioral outcomes, (2) cognitive outcomes, and (3) strategic outcomes. The section concludes with a summary of the impact of staffing composition on subsidiary financial performance. Given that organizational learning and social identification work in similar ways at workforce and top management levels, I will not explicitly distinguish between the two.

Affective and Behavioral Outcomes

Individuals tend to categorize themselves and others into various social groups. Social categorization enables individuals to order and simplify their social environments, and to locate themselves and others within it (Tajfel, 1978). Social categorization is often based on demographic attributes such as age, sex, race, ethnicity, and nationality (Tajfel, 1982). Although any type of diversity may provoke categorization, some types have a greater tendency to do so than others, depending on the permeability of an attribute. Permeability refers to the extent to which an attribute can be altered, moving an individual from one category to another (Tajfel, 1978). Social categorization produces social identity, “that part of an individual’s self-concept which derives from his [or her] knowledge of his [or her] membership of a social group [or groups] together with the value and the emotional significance attached to the membership” (Tajfel, 1978: 63).

In contrast to a subsidiary’s organizational identity, an individual’s national identity is impermeable. It is difficult to change one’s national identity in the legal sense, and much more difficult to change its underlying qualities such as assumptions and values. In as much as heterogeneity of staffing composition invokes nationality-based social categorization and identification (Tajfel, 1978; Turner, 1987), in subsidiaries of MNEs, national identity is likely to be “cognitively prepotent in self perception to act as the immediate influence on perception and behavior” (Turner, 1987: 54). Indeed, a case study suggests that national social identity is the major sense-making vehicle and the dominant focus for social identification in international joint ventures (Salk & Shenkar, 2001). Identification with subgroups makes the subsidiary’s organizational identity less salient and decreases subsidiary identification. Thus,

Proposition 1a: Subsidiaries with a heterogeneous staffing composition are more likely to have higher nationality-based but lower subsidiary-based identification than subsidiaries with a homogeneous staffing composition.

Nationality-based categorization and identification have implications for workforce affect. Individuals in the same category perceive each other as trustworthy, favor in-group members, and discriminate against members of other categories (Tajfel, 1978; Tajfel & Turner, 1986; Turner, 1987). This suggests that subsidiaries with a heterogeneous staffing composition may suffer low workforce cohesion and high emotional conflict.

Subsidiary workforce cohesion refers to the degree to which individuals of different nationalities are attracted to each other (Shaw, 1981). The degree of similarity of group
members has great impact on cohesion (Shaw, 1981). In a subsidiary with a heterogeneous staffing composition, there is dissimilarity in national groups’ assumptions, values, beliefs, norms, and demeanor (Laurent, 1983). Even small, seemingly trivial differences often aggravate stereotypes, causing disdain and isolation and resulting in low cohesion (Hall, 1960).

Emotional conflict is a condition in which individuals have interpersonal clashes characterized by anger, frustration, and other negative feelings (Pelled et al., 1999). Heterogeneity in nationality is likely to increase the prevalence of bias when people relate to each other as members of nationality-based in-group or out-group (Jackson et al., 1995). Prejudice against other nationals and favoritism towards one’s own nationals lead to emotional conflicts. Interpersonal clashes in subsidiaries can also occur as a result of the real incompatibility of assumptions, values, beliefs, norms, or working methods (Cascio & Serapio, 1991).

National groups, groups of individuals who define themselves as having the same nationality, are psychological groups (Turner, 1984). In a psychological group, individuals can identify with each other without necessarily engaging in interpersonal interactions with all or any members of that group. This suggests that low cohesion and high emotional conflict arising from nationality-based categorization can occur throughout the subsidiary, including among those individuals who seldom interact with each other. Thus,

**Proposition 1b:** Subsidiaries with a heterogeneous staffing composition are more likely to have lower cohesion and higher emotional conflict than subsidiaries with a homogenous staffing composition.

Subsidiaries with a heterogeneous staffing composition may also have lower workforce behavioral integration. Nationality-based categorization and the resultant in-group favoritism and out-group discrimination is likely to reduce the quantity and quality (i.e., richness, timeliness, accuracy) of information exchange, collaborative behavior, and joint consultation and decision-making, all of which are critical components of behavioral integration (Hambrick, 1994). Lack of a common knowledge base and language also contributes to lower communication and collaboration. Lower subsidiary identification arising from nationality-based categorization reduces the intensity and persistence of work efforts toward subsidiary goals (Van Knippenberg, 2000). Inter-group conflicts along the lines of national group identities increase stress and anxiety (Adler, 1997) and reduce psychological attachment to the subsidiary as a whole, leading to higher turnover. Thus,

**Proposition 1c:** Subsidiaries with a heterogeneous staffing composition are more likely to have a lower level of behavioral integration, lower work effort, and a higher rate of turnover than subsidiaries with a homogeneous staffing composition.

Contacts among PCNs, HCNs, and TCNs lead to positive attitudes toward each other over time (Allport, 1954). Positive attitudes reduce emotional conflicts and increase cohesion. Repeated interactions facilitate the formation of trust relationships among PCNs, HCNs, and TCNs (Axelrod, 1984), leading to better cooperation among these groups. Research suggests that affective, cognitive, and behavioral biases are strongest initially, but weaken over time as people become familiar with each other (Moreland, 1985). Over time, subsidiaries solve
internal conflicts among national groups, establish norms for mutual exchange, and begin to perform tasks. More importantly, an overarching subsidiary organizational identity is likely to evolve over time (Earley & Mosakowski, 2000). This superordinate identity transcends an individual’s national group identity, and therefore, reduces the negative affective and behavioral outcomes associated with nationality-based categorization and identification. Thus,

Proposition 1d: As time (measured in years of subsidiary operation) increases, the negative affective and behavioral outcomes associated with a heterogeneous staffing composition are likely to decrease.

Cognitive Outcomes

Learning and innovation are two closely related cognitive outcomes of subsidiary staffing composition. A subsidiary learns through its agents who have prior knowledge of its environment (Cohen & Levinthal, 1990). A subsidiary is exposed to knowledge available from the host, parent, and third country environments (Gupta & Govindarajan, 1991). A subsidiary’s communication system should have specialized agents to monitor and transfer information from each segment of its total environment (Cohen & Levinthal, 1990), and a subsidiary with a heterogeneous staffing composition does in fact have national groups acting as such agents. Their relevant prior knowledge enables expert intuition into each segment (Cohen & Levinthal, 1990). As a result, the subsidiary is able to maintain access to diverse sources of knowledge and recognize a greater number of possibilities due to the existence of increased information transmission channels and diverse cognitive structures (Huber, 1991). Thus,

Proposition 2a: Subsidiaries with a heterogeneous staffing composition are more likely to access and recognize diverse sources of knowledge than those with a homogeneous staffing composition.

Language enables individuals to name and explain what were once simply intuitions (Crossan et al., 1999). Because each national group has the language and the social and cultural expertise associated with its native environment, subsidiaries with a heterogeneous staffing composition are able to gain more reliable and accurate information from their total environment and they are able to interpret this information more quickly. Individuals tend to interpret information selectively based on their cognitive structures (Cohen & Levinthal, 1990). Subsidiaries with a heterogeneous staffing composition generate a wider range of interpretations because the same information is subject to varied interpretations (Huber, 1991). Thus,

Proposition 2b: Subsidiaries with a heterogeneous staffing composition are more likely to perform better with regards to the interpretation of information than those with a homogeneous staffing composition.

A diverse pool of information needs to be integrated at the subsidiary level (Crossan et al., 1999). Heterogeneity of knowledge and expertise is necessary for integrative learning
to occur. Different national groups are recognized as experts in different environmental domains. The recognition of expert roles increases individuals’ tendency to seek information from each other and increases the likelihood of information sharing (Stasser, Stewart & Wittenbaum, 1995). Individuals of different nationalities are exposed to diverse knowledge structures through shared practices on a daily basis. The presence of differences coupled with the absence of pressure to conform increases a subsidiary’s “integrative complexity,” the ability to recognize various dimensions and make novel connections among them (Argote, 1999; Gruenfeld & Hollingshead, 1993). Thus,

**Proposition 2c:** Subsidiaries with a heterogeneous staffing composition are more likely to perform better with regards to integrative learning than those with a homogeneous staffing composition.

Subsidiary learning creates a tension between assimilating new learning and exploiting what has already been learned, a tension that has been labeled as the exploitation–exploration tradeoff (March, 1991). When favorable performance with an inferior procedure leads a subsidiary to exploit it more and consider the use of a superior procedure unrewarding, a competency trap occurs and the subsidiary firm is trapped in a sub-optimal stable equilibrium (Levitt & March, 1988). In the dynamic global environment, the long-term success of a subsidiary depends on sustaining a reasonable level of exploration. A heterogeneous staffing composition enables a subsidiary to engage in a broad multi-directional search that results in a rich pool of routines, and thus, accelerates the change of routines (Levitt & March, 1988). When sources of learning are not used at the subsidiary level, they are still dormant learning options that reside in the subsidiary’s workforce. Dormant forms of knowledge challenge the knowledge in use, prevent it from becoming stagnant, and accelerate its transformation.

A heterogeneous staffing composition increases subsidiary innovation by enhancing learning (Stata, 1989). Heterogeneity increases communications with others in the diverse environments of a subsidiary, and such communication leads to greater innovation (Ancona & Caldwell, 1992). The diverse repertoire of knowledge gathered by various national groups enhances a subsidiary’s capability for innovation (Cohen & Levinthal, 1990). Diverse knowledge structures coexisting in a subsidiary elicit the kind of learning and problem-solving that yields innovation (Simon, 1985). SIHRM theorists suggest that a hybrid subsidiary HRM system, a HRM system that is a hybrid of parent and local practices, is open to innovations regardless of where they originate (Bird, Taylor & Beechler, 1998). A heterogeneous staffing composition is perhaps an element of such a HRM system. Thus,

**Proposition 2d:** Subsidiaries with a heterogeneous staffing composition are likely to outperform subsidiaries with a homogenous staffing composition in learning and innovation.

Continued interactions among individuals of diverse nationalities facilitate the establishment of a shared knowledge base. A shared knowledge base and grounding rules provide a basis for information sharing and facilitate knowledge integration (Cohen & Levinthal, 1990). The continuity of interaction on a daily basis is especially necessary when it comes to learning and integrating tacit knowledge, which is deeply rooted in actions and involved in specific contexts (Polanyi, 1966).
Repeated contacts over time foster positive attitudes towards and increase cooperation with others who differ with regards to nationality (Allport, 1954). The continuity of interaction over time enables the establishment of a hybrid subsidiary culture, an emergent and simplified set of rules, norms, expectations, and roles that individuals of all nationalities have contributed to, understand, share, and act upon (Earley & Mosakowski, 2000). Such a culture encourages and respects diverse perspectives. At the same time, it provides a mutually acceptable basis for interaction within a heterogeneous subsidiary, and therefore, permits a productive use of diverse talents and perspectives (Earley & Mosakowski, 2000). The formation of a hybrid subsidiary culture reinforces the subsidiary’s organizational identity, transcends national group identities, and thus, increases cooperation in mutual learning among national groups. Thus,

**Proposition 2e:** Time (measured in years of subsidiary operation) is likely to moderate the relationship between a heterogeneous staffing composition and subsidiary learning and innovation such that the longer the operation of a subsidiary, the more likely the heterogeneous staffing composition will enhance subsidiary learning and innovation.

**Strategic Outcomes**

Organizations integrate subunits through the processes of control and coordination (Katz & Kahn, 1978). A MNE can utilize formal control mechanisms (e.g., rules and regulations), informal control mechanisms (e.g., the instilling of corporate culture), or a combination of the two (Edstrom & Galbraith, 1977; Ouchi, 1980). MNEs can adopt either personal or impersonal modes of coordination (March & Simon, 1958; Martinez & Jarillo, 1989). In the personal mode of coordination, individuals serve as the mechanism for making mutual adjustments through vertical or horizontal communications (Van de Ven, Delbecq & Koenig, 1976). The instilling of corporate values in subsidiaries through the socialization activities of expatriate PCNs also act as a personal mode of coordination (Ghoshal & Nohria, 1993; Jaeger, 1983; Welch & Welch, 1997). Impersonal coordination is achieved through predetermined policies, procedures, and work plans.

The demographical composition of an organization affects the form and nature of the control process (Pfeffer, 1983). A parent firm is likely to exercise formal control over a subsidiary with a heterogeneous staffing composition due to the differences in languages, norms, and values between the subsidiary and the parent. The organizational demography and diversity literature suggests that heterogeneous groups or work units tend to communicate more formally (Milliken & Martins, 1996). Formal control reduces a subsidiary’s flexibility in responding to changing environments. In contrast, informal cultural control tends to be exercised over subsidiaries with a homogenous PCN-dominant staffing composition (Edstrom & Galbraith, 1977; Pfeffer, 1983). Informal cultural control is regarded as effective because expatriates share language, values, goals, and perspectives with those in the parent firm (Smith et al., 1994). Furthermore, expatriate PCNs share the same national identity as the parent firm, and are more likely to identify with the parent organization and its objectives (Kobrin, 1988). This shared identity, according to social identification theory, increases the parent’s trust in the subsidiary. The trust relationship makes strict formal control less necessary.
Expatriate PCNs act as liaison persons between a subsidiary and its parent firm (Van de Ven et al., 1976). Shared language, values, and goals increase the effectiveness of personal coordination. Expatriates also transmit corporate values and goals to subsidiaries. The coordination that occurs via expatriates and their socialization activities provides the glue that binds subsidiaries and parents together (Bartlett & Ghoshal, 1987). In the relative absence of shared cultural values and goals within a heterogeneous subsidiary, impersonal coordination of the subsidiary and its parent firm is more likely. Thus,

**Proposition 3a:** Subsidiaries with a heterogeneous staffing composition are more likely to experience formal control from parent firms than subsidiaries with a homogeneous expatriate PCN-dominant staffing composition.

**Proposition 3b:** Subsidiaries with a heterogeneous staffing composition are more likely to employ impersonal coordination than subsidiaries with a homogeneous expatriate PCN-dominant staffing composition.

**Proposition 3c:** Subsidiaries with a heterogeneous staffing composition are more likely to have less effective personal coordination with parent firms than subsidiaries with a homogeneous expatriate PCN-dominant staffing composition.

**Staffing Composition and Subsidiary Financial Performance**

An earlier discussion based on social identification theory suggests that a heterogeneous staffing composition eventually leads to lower subsidiary performance by means of its negative effects on the affective and behavioral integration within a subsidiary. Smith et al. (1994) found that lower cohesion leads to lower firm performance as measured in terms of return on investment and 1-year growth in sales. A meta-analysis suggests that low cohesion is associated with low performance (Evans & Dion, 1991). Nationality-based categorization and identification direct individual efforts toward factional interests instead of the interest of a subsidiary as a whole (Van Knippenberg, 2000), translating into lower subsidiary performance.

Organizational learning theory, however, suggests that a heterogeneous staffing composition may lead to better subsidiary performance by means of its positive effects on learning and innovation. Subsidiaries are embedded in a diverse environment that requires a heterogeneous staffing composition in order to facilitate the procurement of resources and support from that environment (Pfeffer, 1973; Weick, 1979). The majority of innovations appear to have their origins at the organization-environment boundary, and a heterogeneous staffing composition allows a communication structure that facilitates the adoption of innovations (Cohen & Levinthal, 1990; Evans, 1986). It is through the conduits of various national groups that a subsidiary accumulates resources from and gains knowledge about its total environment. The diverse sources of knowledge that coexist within a subsidiary lead to internally generated innovations.

Organizational leaning theorists argue that the rate at which organizations learn is the source of sustained competitive advantage (Stata, 1989). Learning generated from complex daily interactions among diverse national groups is intangible, socially complex, and diffi-
cult for competitors to imitate. These intangible resources lead to superior subsidiary performance (Barney, 1991; Pucik, 1988). To stay ahead of competitors, a subsidiary needs to continuously differentiate itself or reduce costs through innovative products and services (Evans, 1986). The corollary of innovation is organizational flexibility. An innovative subsidiary can better adapt to the changing global environment. Bartlett and Ghoshal (1998) argue that a firm’s ability to innovate is rapidly becoming the primary source of competitive success.

Ample evidence suggests that learning enhances international performance. Prior learning facilitates a firm’s future international expansion (Barkema, Shenkar, Vermeulen & Bell, 1997). The acquisition of host country-specific knowledge, for example, knowledge of local channels of distribution, customer preferences, cultural values, and political environments, is a driving force behind international performance because such knowledge cannot be obtained easily (Inkpen & Beamish, 1997). Luo and Peng (1999) found that the diversity and intensity of learning in a host country enhances subsidiary performance in that country (Luo & Peng, 1999). A subsidiary reduces its dependence on other firms and improves its competitive position by learning technological and managerial skills from its parent and partner firms (Inkpen & Beamish, 1997). By learning from the parent, the host environment, and third countries, a subsidiary develops a better understanding of how to think globally yet act locally, a capability that is increasingly in demand in the new era of global competition (Bartlett & Ghoshal, 1998; Harvey et al., 1999).

Empirical evidence suggests that innovation enhances firm performance. Mansfield (1968) reported that innovators in the steel and petroleum industries grew more rapidly than other firms in those industries during the 5–10 years after their innovations were implemented. Armour and Teece (1978) found that early adoption of a major administrative innovation (the multi-divisional structure) in petroleum firms increased the rate of return on equity. Damanpour and Evan (1984) found that a higher rate of adoption of both administrative and technical innovations led to better performance in a sample of public libraries. Lawless and Anderson (1996) found that earlier adopters of the new generation of technology in the microcomputer industry commanded a market share in excess of what one would expect given the price of computers. The return to a firm from any given innovation may erode over time. Firms that repeatedly introduce innovations, however, can achieve sustained superior profitability (Roberts, 1999). A heterogeneous staffing composition provides an infrastructure that supports continuous learning and innovation.

To summarize the above discussion based on social identification and organizational learning theories, I propose the following competing propositions:

Proposition 4a: Staffing composition heterogeneity is negatively related to subsidiary financial performance.

Proposition 4b: Staffing composition heterogeneity is positively related to subsidiary financial performance.

Time provides a point of convergence for the social identification theory and organizational learning theory. Over time, subsidiaries gain knowledge about managing a heterogeneous workforce or top management team. Continued contacts among individuals of different nationalities foster positive attitudes towards each other and reduce negative
affective and behavioral reactions arising from nationality-based categorization and identification. The formation of a hybrid subsidiary culture over time erodes national group identities and enhances subsidiary identification. A hybrid subsidiary culture accommodates diverse perspectives, provides a basis for interaction among diverse national groups, and therefore, facilitates the exploitation of the innovative potential associated with a diverse workforce or team (Kramer & Brewer, 1984). Thus,

**Proposition 4c:** Time (measured in years of subsidiary operation) will positively moderate the effects of heterogeneous staffing composition on subsidiary financial performance such that the longer the operation, the more likely the subsidiary will benefit from the heterogeneous staffing composition.

**Discussion**

The model in this article highlights the need for balancing learning and integration at the subsidiary level. The transformation of HR systems to support subsidiary learning and innovation is a key strategic task facing the HR function in MNEs (Harvey et al., 1999; Pucik, 1988; Schuler et al., 1993; Welch & Welch, 1997). A heterogeneous staffing composition enhances learning and innovation, and therefore, increases subsidiary performance. However, it may also lead to nationality-based social categorization and identification that work against subsidiary performance. The challenge for international HR practitioners is to exploit the learning and innovative potential of a heterogeneous staffing composition while containing its disintegrative effects. A hybrid subsidiary culture could serve to meet this challenge. Cross-cultural negotiation and conflict resolution skills are also helpful (Ancona & Caldwell, 1992). While socialization of HCNs and TCNs may reduce negative affective and behavioral outcomes, such socialization may also make them think and behave like expatriate PCNs, and thus, compromise the benefits of variety.

The model also highlights the need for balancing cognitive gains and integration at the MNE level. A heterogeneous staffing composition offers the benefits of learning and innovation. However, a MNE may have to resort to formal control mechanisms to integrate heterogeneous subsidiaries. Formal bureaucratic control constrains the exploitation of a heterogeneous workforce’s innovative potential (Damanpour, 1991). Increased bureaucratic control leads to lower subsidiary performance for other reasons as well. First, a subsidiary tends to be less responsive to local conditions and changing competitive environments under strict bureaucratic control. A subsidiary that cannot respond quickly to the changing environment will find that its performance suffers as a result. Second, rules, regulations, and monitoring increase administrative burden and costs. Finally, formal control diverts subsidiary time and energy towards compliance with rules and regulations instead of accomplishing objectives.

**Toward a Research Program**

Some industries and MNEs may provide a good setting for testing the propositions. A Conference Board report suggests that manufacturing and non-financial services indu-
tries have the most global boards, boards with non-national directors (Alexand & Esser, 1999). Examples of MNEs with heterogeneous workforce and/or management include ABB, BP Amoco, Lincoln Electric, Colgate Palmolive, and virtually all the major consulting firms such as McKinsey & Company and Booz Allen Hamilton. According to Fruzsina M. Harsanyi, Vice President for Public Affairs & Corporate Communication in ABB, “ABB prides itself on being a very diverse company, but it translates diversity to mean primarily national diversity. It has lots of different nationalities and, more than any other company in the world, it has learned how to pull these various nationalities together in executive and leadership positions,” (Brancato & Patterson, 1999: 8) BP Amoco has 12 British, 6 Americans, 1 Dutch, 1 Canadian, and 1 New Zealander in its 21-person board (Alexand & Esser, 1999). McKinsey & Company, a consulting firm with operations in 44 countries, has a workforce representing more than 100 different nationalities.

Heterogeneity of staffing composition can be operationalized as the number of national categories/groups (i.e., PCN, HCN, and TCN) and the dispersion of the top management or workforce over these categories (Pfeffer, 1983). Blau’s (1977) index can be used to gauge nationality heterogeneity in subsidiaries of MNEs. The index is expressed as \(1 - \sum P_i^2\), where \(P_i\) is the proportion of individuals in the \(i\)th category (i.e., PCN, HCN, or TCN). A larger value of the index indicates a more heterogeneous staffing composition. When there are equal proportions of PCNs, HCNs, and TCNs, the index reaches the largest value of .67 \[1 - \left(\frac{1}{3}\right)^2 - \left(\frac{1}{3}\right)^2 - \left(\frac{1}{3}\right)^2\], and the staffing composition is the most heterogeneous. In the BP Amoco example mentioned earlier, the index value is .57 \[1 - \left(\frac{12}{21}\right)^2 - \left(\frac{6}{21}\right)^2 - \left(\frac{3}{21}\right)^2\], indicating high heterogeneity. While measures of identification, cohesion, emotional conflict, control, and coordination are relatively easy to obtain, there are no measures of organizational learning. Developing such a scale is quite a challenge. As to innovation, researchers can use number of patents to represent the construct or develop specific innovation items (Bantel & Jackson, 1989).

Three complementary methods can be used to test the propositions. Researchers may use subsidiaries of one large MNE to test the relationship between staffing composition and subsidiary performance. Many of the Global 500 firms would have enough number of operations for conducting such a test. For example, Mitsubishi Corporation, a major Japanese trading firm, has approximately 461 overseas operations. To control for extraneous variables, cultural distance between the host and the parent country, and host country-specific factors (e.g., host country political risk, and host country education level, etc.) should be included as control variables in data analysis. As a reviewer suggested, subsidiaries may not be similar enough. Therefore, any such studies must also control for subsidiary-specific factors other than staffing composition. The real challenge is access to data especially objective performance data, which are likely confidential, and thus, hard to obtain. Researchers need good partnership with one large MNE so as to access performance information. However, labor productivity is quite easy to obtain. Even public data sources such as Directory of Corporate Affiliations and Japanese Overseas Investment provide subsidiary sales and number of employees, through which researchers can calculate labor productivity. Reverse causality is a potential problem in this cross-sectional survey approach.

A longitudinal design is necessary for testing the temporal dimension of the model and for ruling out the reverse causality problem. A longitudinal study that involves a large number of subsidiaries would prove difficult unless a full sponsorship is available through a
MNE partnership. A more realistic approach is to follow up several subsidiaries over a long period of time. These subsidiaries ideally should come from one MNE, and have similar enough operations (but vary in terms of staffing composition). It is possible to find such subsidiaries since the sample required is not big. In this approach, researchers can measure staffing composition and outcomes at different points of time, and track changes in staffing composition and outcomes, which enable researchers to establish causality and test the moderating effect of time. With the permission of subsidiaries, researchers will also be able to actually observe the dynamics of multinational groups (i.e., identification, communication, cooperation, emotional conflict, and turnover, etc.). Researchers should replicate the same process in other small samples of subsidiaries so as to increase generalizability of findings.

Constraints on field research may compromise internal validity of findings. A strictly controlled experimental study can help in this regard. Two sources of subjects come to mind: undergraduate international students, and international managers attending executive training programs in large diverse universities. US News & World Report provides information on student body diversity of the US universities. In this approach, researchers can ensure, through randomization or matching, that groups differ primarily in degree of nationality heterogeneity. For courses where students are assigned into groups to work together for a long period of time, a longitudinal design is also possible. This approach is suitable for examining impacts of composition heterogeneity on intermediate outcomes such as cohesion, emotional conflict, learning, and creativity, etc. The disadvantage is that external validity may be limited, and no measures of financial performance are applicable. While the three methods have their advantages and disadvantages, they complement each other to provide a better test of the model.

Analyses at both the top management and workforce levels are necessary since organizational learning and social identification theories apply to both levels and nationality heterogeneity at both levels has become a reality in subsidiaries. Top management composition and workforce composition may be related, e.g., a subsidiary that has mainly local nationals in the workforce may also have a large proportion of local nationals in managerial positions.

This article aims to provide a general framework for understanding staffing composition and is intended to stimulate empirical research in the area. As research progresses, a more detailed and complex model is likely to evolve. For example, affective and behavioral reactions may moderate the relationship between staffing composition and cognitive outcomes. Organizational context variables such as provision of cross-cultural training and environmental variables such as cultural differences may also be added as moderators in the model.

Acknowledgments

This research is supported by the Center for International Business Education and Research (CIBER) at The Ohio State University. Special thanks are extended to Robert Heneman, Stephen Hills, Mike Peng, Randall Schuler, Oded Shenkar, and three anonymous reviewers.
References


Yaping Gong is currently an assistant professor at the Hong Kong University of Science and Technology. He received his Ph.D. from The Ohio State University. His research interests include strategic international human resources management, expatriate management, multinational teams, and human resources management in strategic alliances.