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Control in Multinational Corporations (MNCs): The Case of Korean Manufacturing Subsidiaries

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Using both agency theory and comparative national culture frameworks, this study investigated factors determining the degree and type of control used by American and Japanese MNCs on their Korean subsidiaries. Two characteristics of MNCs affected the control they exerted—the degree of MNCs' ownership, which affected the amount of control, and the nationality of the MNC's headquarters, which affected the type of control exerted. As predicted, the size of the subsidiary relative to the MNC, moderated the relationship between the degree of ownership and amount of output control the MNC exerted. Overall, the study supported the usefulness of agency theory in explaining the degree of management control exerted, while national culture accounted for the type of control exerted. © 1999 Elsevier Science Inc. All rights reserved.

The world is becoming smaller in every aspect of life, but especially in business where the importance of multinationalization is growing exponentially. Here exports to foreign countries are increasingly being replaced by the direct production of goods in company plants located in these nations. For example, the sales of foreign affiliates owned by U.S. companies are now more than four times the value of U.S. exports (Phatak, 1989). As multinational corporations take on an increasingly important role in business, they also become of greater interest to management researchers.

Multinational corporations (termed MNCs, hereafter) are defined as “enterprises that have a network of wholly or partially (jointly with one or more foreign partners) owned producing, marketing or R&D affiliates located in a number of countries” (Phatak, 1989). MNCs must function in more than one external environment, and respond to a complex set of factors such as the diverse nationalities of

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employees, floating exchange rates, geographically imposed problems of communication, and so forth (Phatak, 1989; Toyne & Kuhne, 1983).

MNCs can also be characterized as a group of geographically dispersed and goal-disparate organizations (Ghoshal & Bartlett, 1990). Essentially, they are workplaces where different ethnicities and cultural values are intertwined. Workers often bring different values, attitudes, and goals into the workplace, thereby causing interpersonal conflicts.

Accordingly, parent corporations often find that by investing in companies that are operating in different environments they increase the level of uncertainty or risk of return on their investments. Thus, corporate headquarters' control of subunit behavior and performance becomes a central integrating function in MNCs. Indeed, headquarters must attempt to increase control over foreign subsidiaries in order to reduce the uncertainty of their investment, since such control ensures that the behaviors originating in separate parts of the organization are compatible and support common goals.

Not surprisingly, control has been a frequently discussed topic among scholars in the multinational area (Baliga & Jaeger, 1984; Egelhoff, 1984; Geringer & Hebert, 1989; Kobrin, 1988; Martinez & Jarillo, 1989; Prahalad & Doz, 1981; Youssef, 1975). Previous studies on the control exerted by MNCs on their subsidiaries have been largely atheoretical in nature and have defined both control (Geringer & Hebert, 1989; Martinez & Jarillo, 1989; Youssef, 1975) and nationality, the foci of this research, in many different ways (Egelhoff, 1984; Fukuda, 1992; Jaeger, 1983; Kobayashi, 1990; Lawler, Zaidi, & Atmiyanandana, 1989; Tung, 1984). Perhaps not surprisingly then, the results of these studies have been inconsistent, with some authors finding evidence that degree of ownership increases degree of control (Youssef, 1975), while others reported inconsistent results (Dang, 1977).

Therefore, the purpose of this study was to conduct a theoretically based examination of the control exerted by MNCs on their subsidiaries, using both agency theory and the comparative national culture literature as a basis for predictions about the type and amount of control exerted. Specifically, the research questions are: (1) Is there a significant relationship between degree of ownership held by an MNC in a given subsidiary and the degree of control the MNC attempts to exert over it? (2) Does the nationality of an MNC owner determine the type of control it attempts to exert over the subsidiary? and (3) Does the relative importance of the subsidiary to the MNC moderate both of the above relationship(s)? Korea was used as the national setting in which to address these questions because of the growth in its economy since the Korean War. This growth has encouraged a large number of MNCs, largely American and Japanese, to invest in Korean subsidiaries with varying levels of ownership. Thus, Korea was known to host a large number of both American and Japanese MNCs, the two parent cultures of primary interest for the study. According to the '97 formal report by the Ministry of Finance and Economy, investment by foreigners has increased continuously, and achieved \$3,201 million in 1996. Furthermore, Korea is an especially good site to investigate MNCs in manufacturing industry. In particular, investment in manufacturing industry has increased from 45.5% in 1995 to

60.3% in 1996 of the total foreign investment. Considering this, it seems that MNCs in Korean manufacturing industry are quite deserving of research attention.

Methodologically, this study also attempted to improve on past research by operationalizing ownership and nationality in a manner more consistent with their theoretical foundations. Thus, in designing this study, we strove to enhance both the conceptual explanation and the methodological rigor of prior research studying the level of control that MNCs exert on their subsidiaries. We now review the agency theory literature in order to develop the theoretical rationale for study hypotheses.

Theoretical Background

Agency Theory and Control Degree

Agency theory developed in the 1960s within the field of micro economics as an attempt to model the relationship existing when one party, the “agent,” must act on behalf of another party, the “principal.” The theory’s focus on the relationship between two parties makes it useful for investigating any type of situation where the returns to one individual depend, to some degree, on the actions of another (Pratt & Zeckhauser, 1991). In the field of management, the agency relationships that have been studied most frequently are those created by the separation of management from ownership as is the case when a firm goes public and stockholders become owners (Fama, 1980). These owners make virtually no decisions about the operation of the firm. In this case, although stockholders (the principals) still have legal control of the firm, it is management (the agents) who has *de facto* control (Tosi & Gomez-Mejia, 1989).

Agency theory assumes that human beings are risk-averse and self-interested by nature (Eisenhardt, 1989). Thus, there is a high potential for agents and principals to differ in their preferences for outcomes (Fama, 1980; Jensen & Meckling, 1976). Such differences may cause agents to make decisions that reduce their own risks, at the expense of increasing the amount of risk for the principal. Agency theory also assumes that information is distributed asymmetrically throughout the organization (Eisenhardt, 1989). That is, the information that agents possess about the company is far greater than that of the principals, and information about the behaviors or the decision making of agents is not easily accessible to the principals.

“Contract” is the metaphor used in agency theory to explain how the relationship between agents and principals is formulated. Therefore, the agency relationship consists of a contract under which one or more principals engage agents to perform some service on their behalf. This involves delegating some decision making authority to the agents (Fama, 1980; Jensen & Meckling, 1976). However, principals may not be able to wholly control the behaviors of the agent. Accordingly, they always bear risks and uncertainty about what the agents are actually doing. This risk has been referred to as “agency cost.” In domestic companies, examples of agency costs are most clearly seen in the stockholder-CEO relationships, where top managers may invest firm money in projects with

negative or sub-optimal present value in order to maximize their own payoffs under the existing executive compensation plan (Jensen & Meckling, 1976).

However, the “classical” agency relationship between shareholders and the CEO is only one of many that may operate in complex organizations comprised of multiple business units and multiple layers of management. In addition, it is possible to view the CEO of a large firm as the principal in an agency relationship since this person is most directly charged with looking after the interests of the organization as a whole. Similarly, the managers of various SBUs held by the firm may be viewed as agents. Thus, agency theory would predict that these SBU managers may attempt to maximize their own self-interests through actions that increase their visibility and that of their unit, even though negatively affecting the long term interests of the firm as a whole. One such example of an “extended” agency relationship would be that between a corporation and its subsidiaries.

Regardless of whether one is concerned with a classical or extended agency relationship, according to agency theory, principals will generally attempt to control their agents in order to minimize the costs of the agency relationship to them. Agency theory researchers have traditionally proposed that principals tend to use three primary types of control—cultural, behavioral, and output (Eisenhardt, 1989; Ouchi & Maguire, 1975; Ouchi, 1981)—with varying degrees of intensity. Although subsequent research and writing have extended the types of organizational controls to include financial, bureaucratic and strategic (Hoskisson & Hit, 1988; Gupta, 1987), two of these, financial and strategic, seem roughly equivalent to output and behavioral control, respectively (Eisenhardt, 1989). Thus, this research focused on the more traditional conceptualizations of cultural, behavioral, and output control (Eisenhardt, 1989; Ouchi, 1977).

Behavior control means control obtained by monitoring the behaviors of others, or the transformation process, while output control involves measuring the desired quality and/or quantity of output. Cultural control, on the other hand, involves the indoctrination of agents into principals’ values and interests. Although receiving less empirical attention than output or behavioral, cultural control has been frequently mentioned as a distinct control mechanism in the agency literature (Eisenhardt, 1989; Ouchi, 1977, 1979).

Subsequent research on the antecedents of different types of control suggests that they may be used by principals for different reasons. For example, the Ouchi and Maguire (1975) study found that behavior control was used when principals wished to direct and guide individual managers (agents) who were believed to require assistance in overseeing their units. On the other hand, output control, was used to obtain verifiable evidence that agents’ performance was meeting the strategic objectives for their SBUs. Finally, cultural control tended to be applied when a principal had limited ability to measure outputs and imperfect knowledge of the behavior required in the transformation process (Ouchi, 1979). Relying on the alignment of values between principals and agents, cultural control has the added benefit of promoting agent decisions that were in the best interests of their principals (Pratt & Zeckhauser, 1991).

The reader should note, however, that the three types of control also may be used in combination, rather than as substitutes for one another (A. Gupta, personal

communication, April 14, 1992). For example, in order to increase the frequency of particular agent behaviors (e.g., cutting production costs), principals may attach rewards to the desired behaviors. Nevertheless, this direct control of agent behavior also may indirectly impact other types of control. For example, the more frequent use of cost cutting behavior may enhance the ease of output control by increasing the output of the agent's subsidiary. Overtime, however, it also may affect cultural control by increasing the value that agents themselves come to place on cost cutting behaviors. In summary, the three types of control, behavior, output, and cultural, are different ways in which principals attempt to influence the actions of their agents and tend to be more appropriate for use under particular situational conditions. Nevertheless, the three types of control are indirectly related, and serve the common purpose of making agents' actions or decisions more consistent with the best interests of their principals.

Agency Relationships in Multinational Corporations

Agency costs also exist in MNCs, although they evolve from an extended, rather than classical agency relationship. In the MNC, the agency relationship is between the MNC's headquarters (the principal in this case) and its subsidiary (the agent). The linkage between a headquarters and a foreign subsidiary can be appropriately compared to the agency relationships between principal and agent in that the parent company invests funds and resources in the subsidiaries, and the subsidiaries, in turn, are expected to work for the benefit of the parent headquarters. Although agency costs in MNCs have not been specifically defined, they might include any subsidiary decision undertaken to promote its own interests at the expense of headquarters' interests. One such example might be a subsidiary manager's selection of low quality personnel to staff the unit based on the fact that the manager has a personal relationship with this individual, or with a friend or family member of the individual.

Why might such agency costs be more likely in MNCs relationships with their foreign subsidiaries? Partially because foreign subsidiaries operate in environments that are substantially different from those of the parent company with respect to culture, language, and political/legal systems; thus, they are often headed by managers whose culture is very different from that of corporate leaders at headquarters. Because individuals from different cultures may differ greatly in their work values and attitudes, the managers of foreign subsidiaries are more likely than those of "uni-national" firms to face decisions for which they and their corporate headquarters have differing opinions and interests. Further, the geographic and cultural distance between the headquarters and the foreign subsidiaries seems likely to enhance corporate headquarters' uncertainty about the appropriateness of their foreign subsidiaries' decisions. Accordingly, Egelhoff (1984) has noted that the environmental differences and physical/cultural distances make control at the parent-subsidiary level a great problem for MNCs.

This problem intensifies as the foreign subsidiary becomes larger and more complex, increasing the importance and the ambiguity of its decisions to corporate headquarters. Further control concerns often arise as MNCs are forced to utilize more national managers and fewer expatriates due to both a higher failure rate of

the latter (Kobrin, 1988) and pressures from host country statutes limiting expatriate employment (Phatak, 1989).

Perhaps not surprisingly, in order to reduce the risk associated with owning foreign subsidiaries MNCs often have chosen to share their ownership with another MNC. Thus, a particular MNC might invest 50% of the capital required by a subsidiary, rather than 100%. However, multiple ownership, termed "multi-parent," in combination with the cross cultural differences existing between the two often result in additional communication, human resource management, and inter-partner conflicts. Accordingly, multi-parent subsidiaries often are characterized by poorer performance and higher failure rates than are single parent subsidiaries (Geringer & Herbert, 1989; Shenkar & Zeira, 1987).

For all the above reasons, the agency relationship in MNCs is even more complex than in domestic firms. Instead of a fairly homogeneous group of stockholders with similar interests, a host subsidiary (the agent in this example) may have multi-parents whose goals and interests vary greatly. Similarly, the MNC (the principal in this example) may own multiple subsidiaries, each located in a different host country, but all reporting to one corporate headquarters.

Conceptualization of Control in MNCs

As discussed earlier, principals' decision to utilize a particular type of control in order to reduce agency costs is believed to be related to the characteristics of the particular relationship. Past research on MNCs has found that the two most commonly used types of control are output control and staffing control, a type of cultural control (Egelhoff, 1984). Exactly why behavioral control is not used more frequently in MNCs has not been clearly established, but it seems that behavioral control is less effective in MNCs because differences in cultures between the two parties make behaviors harder to interpret. Thus, the effects of behavioral control in the MNC—subsidiary relationship is thought to be weakened by large cultural and geographic distances between the two parties. Therefore, this study examines both output and staffing control as dependent variables.

Within MNCs, output control is often assessed through the performance reporting systems which attempt to monitor and evaluate the subsidiary's outputs, while also providing feedback (Egelhoff, 1984). MNCs headquarters are expected to rely on output control as an important and verifiable way of monitoring agent performance in MNCs.

Staffing control is, in essence, the employment of parent nationals to fill top subsidiary positions (Baliga & Jaegar, 1984). Underlying MNCs' use of staffing control is the assumption that managers whose nationality is the same as that of the MNC headquarters will hold very similar goals to those of the corporate level. Thus, staffing control is viewed as a type of cultural control because it results in a greater sharing of values and goals between MNCs leaders and the top managers of their foreign subsidiaries. Because of this congruence, subsidiary managers are expected to be more likely to act in accordance with headquarters' interests than are foreign managers. In support of this notion, prior research has found that subsidiary managers whose nationality differed from that of the parent company engaged in less communication with their MNC headquarters and perceived that

headquarters trusted them less than did subsidiary managers with the same nationality as their parent corporation (Boyacigiller, 1990; Egelhoff, 1984; Torbiorn, 1985). Accordingly, staffing control is expected to be frequently used by MNCs because of the high level of uncertainty surrounding the value and goal congruence in the parent-subsidiary relationship.

Hypotheses Development

Effect of Ownership Degree

The greater uncertainty existing in the agency relationships between MNCs and their foreign subsidiaries is believed to generally result in greater attempts by MNCs to control their foreign subsidiaries. However, this effect is expected to be shaped to some degree by the ownership structure of the particular MNC, a concept believed to be similar to Allen's notion of CEO power (Allen, 1981). Allen views CEO power as "a hierarchy of control configuration" based on the distribution of company stock held among the members of the organization's board of directors. He argues that, all other things being equal, CEOs will possess greater power to influence their firms when they are the principal stockholder in their organization's board of directors, and less power when there are several principal stockholders among the other directors.

Extending the propositions Allen (1981) maintains about CEO power to the case of agency relationships between MNCs and their foreign subsidiaries, we expect that MNCs' power to exert control over their subsidiaries will vary directly with their level of ownership of the unit, relative to that held by other MNCs (A. Gupta, personal communication, April 14, 1992). To demonstrate the continuum along which subsidiary ownership might vary, in the first case, an MNC may be a single owner of the subsidiary possessing 100% of the total stock of the subsidiary. Referred to as a "single owner," this case is believed to result in an MNC having the greatest level of power over the subsidiary. The second greatest level of power for an MNC is believed to be the case where it holds more than 50% of the total stock of the subsidiary, and thus is the largest owner. This case is referred to as "majority owner control." In diminishing order of power yielded, another scenario would include that where an MNC has less than 50% and greater than 20% but might still be the single largest owner, a case termed "dominant owner control." Fourth, an MNC might have less than 20% of the stock but still have greater than 10% more stock than the second largest MNC owner, a situation termed "influencing owner control." Finally, the case where an MNC would have the weakest level of power over its foreign subsidiary is believed to be that where stock is widely dispersed with no dominant owner, a situation termed "multiple owners."¹ (The rationale for this classification is included in Appendix A.)

Thus, we expect that in order to reduce the costs and increase the profits associated with foreign subsidiaries, MNC headquarters will increase the degree of control over their foreign subsidiaries in a manner that reflects their relative power in the relationship. We also expect that both output and staffing control effects will be found, since both will tend to be viewed as effective and feasible by MNCs. Thus, we hypothesized that:

H1a: As the degree of ownership increases, the degree of output control also will increase.

H1b: As the degree of ownership increases, the degree of staffing control also will increase.

Although we propose that degree of ownership is directly related to an MNC's attempts to control its foreign subsidiaries, we also expect that the subsidiary's importance to the MNC may moderate this relationship. In the following section, we develop the rationale for this hypothesis.

Moderating Effect of Subsidiary's Relative Importance

The control that MNC's headquarters' attempt to exert over their subsidiaries may be viewed as costly, in terms of resources such as time, effort, and staffing considerations. Logically, then, it seems reasonable to propose that the amount and type of control that headquarters attempt to exert over a given foreign subsidiary will vary with the relative importance of the subsidiary, as compared to others in the MNC's portfolio. In other words, the parent MNC's efforts to influence its foreign subsidiary are expected to vary according to the "value" of the subsidiary to the parent.

One indicator of the value of the subsidiary to the parent company is its number of transactions with the parent or other affiliates. Previous research indicates that when the subsidiary has more transactions with the parent or other affiliates, headquarters will try to exert more control over it. A study by Martinez and Ricks (1989) examined the relationship between foreign subsidiary's importance to the parent MNC companies and degree of parent's influence on the affiliate's human resource decision making. Investigating this relationship using U.S. parent companies and their Mexican affiliates, these researchers found that the influence of the parent company was greater when the subsidiaries had more transactions with parent or with other affiliates. Further, a higher level of affiliate importance was found to be related to a higher degree of staffing control, as assessed by the percentage of expatriates employed by the subsidiary.

Another index of the value of the subsidiary to the parent is relative size of the subsidiary to the parent in terms of investment dollars and number of employees. The logic here is that when the parent MNC has contributed greater resources to the subsidiary, it is more likely to be willing to exert the time and effort needed to attempt to control the subsidiary's performance. Boyacigiller (1990) investigated the changing degree of staffing control used in American MNCs. Studying a major U.S. bank operating in 43 countries, he found that subsidiary complexity and size were positively related to the proportion of U.S. nationals. These results indicate that as the subsidiary becomes larger an MNC is more willing to invest the time and effort needed to achieve a higher level of staffing control. Therefore, prior research findings suggest that the subsidiary's relative importance, as defined by relative size of assets and number of employees, will affect the degree of subsidiary control.

The final aspect of subsidiary importance is the subsidiary's functions. Manufacturing, marketing, and research & development compose the main functional operations for foreign subsidiaries. Some subsidiaries may focus exclusively on marketing, while others combine marketing and manufacturing. The number of different functions carried out by a subsidiary is expected to directly affect the degree of control exercised by the headquarters. This is because the ability of the subsidiary to act independently of its parent MNC is expected to be directly determined by the number of functions it enacts. For example, if a subsidiary is focused only on marketing, it will develop a relatively heavy reliance on the parent MNC headquarters which provides it with a continuous supply of products to sell. Thus, the MNC's headquarters may constrain the subsidiary's independence through limiting its supply of products. However, if the subsidiary can produce and sell products by itself, it is free to act more independent of the headquarters, and the headquarters is likely to feel higher uncertainty about whether the subsidiary's actions and decisions are in its best interests. Thus, headquarters is likely to attempt to exert greater control.

Information asymmetry between the headquarters and the subsidiary regarding the behaviors of the subsidiary also may play a role in the parent MNC's decision to exert greater control. For example, the asymmetry is likely to be greater in the case of a subsidiary fulfilling all of the functions of manufacturing, marketing, and research & development than in the case of a subsidiary performing only one function. As the information asymmetry increases, the degree of control that the headquarters tries to exercise also will tend to increase. Thus, the strategic functions of the subsidiary will moderate the relationship between ownership degree and subsidiary control.

In summary, because MNC's attempt to control their foreign subsidiaries are costly in terms of time, effort, and staffing resources, we expect that the relative importance of a foreign subsidiary will moderate the relationship between degree of ownership and level of control exerted by the MNC. The subsidiary's relative importance to the MNC may be assessed in a variety of methods, including: number of subsidiary transactions with other affiliates, relative size, number of strategic transactions with other affiliates, and number of strategic functions (e.g., the ability to operate as both a producer and a marketer of its product). Therefore, it is hypothesized that,

H2: *The importance of the subsidiary to its parent, as denoted by*

a: *its number of transactions with other affiliates will positively moderate the relationship between level of ownership and both levels of output and staffing control*

b: *its relative size will positively moderate the relationship between level of ownership and both levels of output and staffing control*

c: *its number of strategic functions will positively moderate the rela-*

tionship between level of ownership and both levels of output and staffing control.

The hypotheses pertain to the *amount* of control that MNCs attempt to exert over their subsidiaries. In the next section, we will develop predictions about the *type* of control a subsidiary will choose to exert.

Effect of Owner Nationality

The diversity of the owners of a foreign subsidiary, that is, the case where several companies from different countries invest in a company, is believed to have an impact on the type of control exerted. Even though MNCs may have a common goal, such as global optimization of business opportunities, management styles often vary from one country to another (Kobayashi, 1990). Therefore, it seems reasonable to propose that the parent company's nationality may affect the types of subsidiary control used.

Jaeger (1983) supported the view that the parent's culture is transferred into foreign subsidiaries. In investigating organizational culture as a control mechanism, he found that foreign subsidiaries are managed in accordance with the culture of the parent. Following Ouchi's classification of Type A and Type Z culture (Ouchi, 1981), his results empirically supported the hypothesis that a Type Z company tends to control its subsidiaries in a manner consistent with its Type Z culture. This includes the presence of more expatriates and a longer average tenure than a Type A company has.

Similarly, in examining the type and level of control exercised by the parent headquarters of U.S., U.K., and European MNCs, Egelhoff (1984) also found evidence that nationality impacted subsidiary control. Specifically, his results revealed that U.S. multinationals tend to exercise high levels of output control, whereas European multinationals tend to exercise high levels of cultural control. This finding is quite consistent with the recognized tendency of American companies to focus on short-term performance (Chung & Gray, 1982; Ouchi, 1981; Ouchi & Jaeger, 1978; Tung, 1984).

Many studies have found that U.S. and Japanese companies have distinctly different management styles (Baliga & Jaeger, 1984; Chung & Lee, 1989; Jaeger, 1983; Ouchi & Jaeger, 1978). The Ouchi (1981) analysis of these differences is one of the most frequently cited. He contrasted the management styles of the two countries as follows: American companies conduct rapid evaluation of subsidiary success, and use explicit control mechanisms while displaying a short-term employment concern. Conversely, Japanese companies' evaluations of their subsidiaries occur more slowly, and are accompanied by implicit control mechanisms and a concern for lifetime employment. A comparative study by Chung and Lee (1989) also found that American firms were characterized by more output-oriented control than Korea and Japan. The scholars explained the differences with environmental factors. Unlike Japan or Korea, where business is more dependent on government, the free-market economy which characterizes assigns a more passive role to government, encouraging companies to attempt to maximize shareholder wealth on a short-term basis. Accordingly, short-term output

control tends to be more widely utilized in American companies than in Asian ones. Other studies support the hypotheses that Japanese MNCs will rely more heavily on the use of cultural control than will American MNCs. Based on a comparative study of Japanese and Western multinational companies, Kobayashi (1990) reported that Japanese MNCs assigned host country employees to managerial positions far less often than did major Western multinationals. Similarly, Tung (1984) reported that Japanese MNCs used Parent Country Nationals (PCNs) more extensively in their top and middle management positions than American MNCs did.

Fukuda (1992) provides further support. He concluded that the American management style was one of selecting and promoting able individuals regardless of their nationalities, while the Japanese management style tended toward the filling of a high percentage of senior management positions with PCNs. Similarly, findings were reported by Lawler et al. (1989) in studying the staffing strategies of American and Japanese MNCs in Thailand. These researchers found that American firms preferred local professionals, while Japanese preferred expatriates.

Exactly why Japanese MNCs rely more heavily on the use of staffing control than American MNCs is not known, but there is reason to suspect that several different causal factors may be at work—the subtle nature of the Japanese culture, ethnocentric attitudes, and the high level of uncertainty avoidance found to characterize the Japanese culture (Hofstede, 1980). In the first case, Tung (1984) noted that the subtle nature of the Japanese natural culture is likely to handicap foreigner's ability to understand company philosophies and values. Therefore, Japanese MNCs may rely more heavily on PCNs to staff top management positions in foreign subsidiaries in order to avoid problems associated with host country nationals' inability to "read" company philosophies and values. For all the above reasons, Japanese MNCs are expected to utilize more staffing control than are American MNCs, placing PCNs as the heads of their foreign subsidiaries more frequently than is the case with the American firm.

Based on the above findings, it seems reasonable to conclude that cultural differences in the management styles of American and Japanese MNCs also will affect the way they attempt to exert control over their foreign subsidiaries. Specifically, the greater preference for output control displayed by American companies and the greater preference for staffing control by Japanese MNCs is expected to be evident. Thus, it is hypothesized that:

H3a: *The degree of output control that American MNCs exert over their foreign subsidiaries will be greater than that exerted by Japanese MNCs over their foreign subsidiaries.*

H3b: *The degree of staffing control exerted by MNCs headquarters on their foreign subsidiaries will be greater for Japanese MNCs than for American MNCs.*

Research Method

Overview

This research used a survey methodology to collect data on the amount and type of control used by Japanese and American MNCs on their subsidiaries in Korea. Thus, the unit of analysis for this study was a single Korean subsidiary in the manufacturing industry owned by either an American or Japanese MNC.

Korea was chosen as the location of foreign subsidiaries for several reasons. First, it was desirable to have all foreign subsidiaries located in a single country in order to control for any sources of variance in level and type of MNCs that might be caused by differences on these two variables. Second, since the Korean War, the growth in Korean economy has successfully recruited a large number of both American and Japanese MNCs to invest in Korean subsidiaries. Finally, Korea is the home country of the first author who was able to return there while collecting the vast majority of the data, thus simplifying mailings and pilot testing. Korea was not selected because of any host characteristics thought to be unique to that country. Rather, it was selected because of the authors' belief that findings obtained here would be generalizable to other host countries.

Research Design and Procedure

This study used a cross-sectional design with data being collected from the Korean subsidiaries of American and Japanese MNCs at one point in time. Questionnaires were distributed to the presidents of subsidiaries of both American and Japanese MNCs in order to obtain their reports of the control practices used by their parent companies.

The sample for the study was obtained from a variety of publications including *Foreign Branches/Subsidiaries in Korea* and *Member Companies & Associations of the American Chamber of Commerce in Korea*. The process used to obtain the sample was as follows. First, American and Japanese MNCs in Korea were randomly sampled from the publications mentioned above. If the MNC had two or more subsidiaries in Korea, the authors randomly sampled one subsidiary from the total number and sent a survey to its president.

Language differences played an important role in the study. Respondents from Korean subsidiaries had the potential to be American, Japanese, or Korean. Further, at the time the survey was mailed to the subsidiary, it was very difficult to determine the nationality of the subsidiary president. Ultimately, surveys were prepared in English and Japanese, since the first author's experience in Korea indicated that Korean presidents working for American companies would have no difficulty with communicating in English, while Korean presidents of Japanese MNCs would be very familiar with the Japanese language. The questionnaires were first prepared in English, and then translated into Japanese. The translated questionnaire was then re-translated back into English in order to verify that the meanings of items were as intended.

Data collection occurred over a four-month period (December, 1992–April, 1993). A total of 667 surveys were repeatedly sent out in five waves, and the extrapolation method (Armstrong & Overton, 1977) was used to check for

response bias, since respondents who are interested in the topic of a survey tend to be more likely, than less interested ones, to reply to it. Essentially, this method involved the responses and demographic variables of those who responded during the first two waves of data collection with those who responded during the last two waves, excluding those in the middle. The results of this analysis revealed significant differences between the early and late arriving surveys on only three variables—owner nationality, staffing control, and subsidiary's number of years in Korea. Upon inspection, the first two variables indicate that more Japanese subsidiaries that reported a higher incidence of staffing control tended to respond earlier to the study. The third significant difference, subsidiary's years in Korea, was statistically controlled in the study. Therefore, we concluded that there was little evidence of response bias in the survey (see Table 1).

Sample

A total of 128 surveys were received in response to the five waves of 667 surveys sent out to Korean subsidiaries. Of the 128 returned, twenty-two were excluded due to incomplete responses or sampling error (e.g., not being the subsidiary of an American or Japanese MNC), yielding a final sample of 107 subsidiary surveys (61 U.S., 52 Japanese and about six subsidiaries related to both). The size of the response rate for our study, 19.2%, is lower than we would like, although not uncommon in prior studies of MNCs (Chung & Lee, 1989). We believe the relatively low response may be due to the fact that the designated respondent was the, undoubtedly very busy, subsidiary president, rather than a staff person. Note that, as shown earlier, the extrapolation method test for response bias found no evidence that our results were impacted.

Measurement of Ownership

Degree of Ownership. This variable was assessed by asking the subsidiary president to identify the proportion of stock held by each MNC owner. These percentages were then converted into five categories, as explained in Appendix A.

Nationality of Owner. Nationality of owner was assessed by asking the nationality of the MNC with the highest percentage of stock in the subsidiary.

Table 1. T-test for Non-response Bias

	<i>t-value</i>
Ownership degree	N.S.
Owner nationality	1.70*
Output control	N.S.
Staffing control	2.64**
Subsidiary's functions	N.S.
Degree of centralization	N.S.
President's tenure	N.S.
Number of years in Korea	-2.70**

Group 1 = respondents from the first two waves ($n = 73$)

Group 2 = respondents from the last two waves ($n = 16$)

* $p < .05$ ** $p < .01$

Only American and Japanese MNCs were included: coded as 0 for American and 1 for Japanese.

Dependent Variables

Output Control. A measure developed by Egelhoff (1988a) was used as the indicator of output control. These sixteen items assess the degree of performance reporting in three areas; marketing, manufacturing, and finance. A five point response ranged from (1) not at all, (2) annually ... (5) daily/weekly. The scale yielded an alpha coefficient of 0.92. The score used for the study was the mean value across all items.

Staffing Control. This variable was measured by asking the nationality (citizenship) of the presidents of the subsidiaries, and then comparing the president's nationality with that of the first owner. As a secondary measure of cultural control, nationality composition of top executive team members was investigated. However, the findings using this method were not significantly different from those using the method described earlier. Thus, the first method was used.

Korean presidents were regarded as HCNs, while Japanese presidents in Japanese subsidiaries and American presidents in American subsidiaries were regarded as PCNs. Staff with nationalities other than the owner and the host country are regarded as TCNs (Third Country Nationals). For purposes of the staffing control analyses, cases of TCNs were dropped. However, this effect impacted only a few cases ($n = 5$).

Moderators

Subsidiary's Relative Importance. Three indicators of the subsidiary's relative importance of the parent MNC were used in analyses.

1. sales to other subsidiaries and costs from other subsidiaries/2
2. subsidiary's relative size

$$\frac{\text{subsidiary's total capital} \times \text{parent's ownership share}}{\text{parent's worldwide assets}}$$

$$\frac{\text{subsidiary's employees} \times \text{parent's ownership share}}{\text{parent's worldwide employees}}$$
3. subsidiary's functions

$$= \text{marketing} (0,1) + \text{manufacturing} (0,1) + \text{R\&D facilities} (0,1)$$

The first factor measured subsidiary's importance in terms of transactions with other affiliates. Information about this factor was obtained through the questionnaire. It was measured by items used by Martinez and Ricks (1989), asking the degree of sales and costs with other subsidiaries.

The second factor measured the size of the subsidiary's assets and number of employees relative to that of the parent MNC. The average of the two items was used ($r = .51, p < .01$). Data on parent companies size were collected through a review of secondary materials, such as *Moody's International Manual*.

The third factor measured whether the subsidiary had a single or multiple function(s). To measure the third factor, subsidiary's functions, one item asked

presidents to indicate if the subsidiary had each of the following—marketing, manufacturing, and research & development facilities.

Control Variables

Three control variables were used in this research. The first control variable was degree of centralization of decision making in the headquarters-subsidary relationship. Centralization of decision making has been regarded as an important coordination mechanism in organizations in general (Hage, Aiken, & Marrett, 1971), and in MNCs specifically (Egelhoff, 1988; Geringer & Hebert, 1989; Martinez & Jarillo, 1989). Martinez and Jarillo (1989) also noted that U.S. firms exercised more influence on decision making—more centralization—than Japanese MNCs did.

Centralization in decision making may affect agency control through its effects on the degree of information asymmetry. If decision making regarding subsidiaries' activities is highly centralized to the headquarters, it may possess more information about the decision makings or policies of its subsidiaries. In other words, when the headquarters is more involved in the decision making of subsidiaries, it may feel less uncertainty toward behaviors of its foreign subsidiaries, and thus, less need to control them. Therefore, degree of centralization in decision making was statistically controlled. These data were measured by Egelhoff's items (Egelhoff, 1988), with an alpha of .93.

The second control variable was the tenure of president of a subsidiary. It is probable that presidents with a long tenure may have developed power sources, such as the accumulation of domestic know-how or personal relationships with domestic investors, which may reduce the parent company's control attempts (A. Gupta, personal communication, April 14, 1992). Similarly, it has been suggested that informal CEO power increases over time because boards can be co-opted with CEO appointees or CEOs gain loyalty of others (Finkelstein & D'Aveni, 1994). Therefore, subsidiary presidents' tenure was statistically controlled in this research.

The last control variable was age of subsidiary. The age of the subsidiary (how long the subsidiary has legally existed in Korea) was controlled since it was expected to affect the control strategy used by the parent company. For example, Franko (1973) found that most companies preferred to hire HCNs in a start-up stage because of a perceived need to adapt to local conditions. Thus, the number of years of each subsidiary's operation in Korea was statistically controlled.

Source of Data

Most of the data used in the study came from a single source, a survey completed by the presidents of foreign subsidiaries. However, because of the dangers of relying on a single source of data, an attempt was made to validate some of the information received from subsidiary presidents. Specifically, data on the proportion of stocks held by each MNCs and their nationality from each completed survey were compared with information obtained from independent data sources, such as *Foreign Branches/Subsidiaries* in Korea. Where data on the parent company could not be located from published sources, contacts with staffs

of the subsidiaries were made by phone and fax. This comparison yielded a high degree of reliability, more than 95% agreement.²

Analyses

For H1a and H3a which involved the impact of main effects of continuous variables, control variables were entered first as a set and the impact of main effect variables was then examined in the presence of the three controls. For H2 involving moderator effects on continuous dependent variables, multiple linear regression was again used for the analysis. However, this time, interaction terms were formed by multiplying the proposed moderator variables (relative importance of subsidiary) by the degree of ownership. Because three indicators of subsidiary importance were used, three separate interaction terms were formed and entered in a single regression equation to test this hypothesis. Interaction terms were tested in the presence of control variables and the relevant main effects. Finally, H1b and H3b involved tests of a main effect variable on a dichotomous variable, staffing control. Logistic regression analysis, rather than multiple linear regression analysis, was used to test these effects. Once again, control variables were entered prior to tests of main effect.

Results

This section first examines relationships between the control variables and dependent variables and between the three indices of the moderator variables, relative importance of subsidiary. It then tests the three major hypotheses in order.

As Table 2 shows, of the three control variables, only one was significantly related to the degree of output control ($r = .17, p < .05$). This relationship indicates that as the centralization between headquarters and the subsidiary increased, so did the amount of output control. This effect is interesting in that it is exactly opposite to that expected.

Examination of the intercorrelations among the three moderator variables revealed that surprisingly, one of the two indices of subsidiary importance, subsidiary's relative size, was negatively related ($r = -0.18$) to one of the other indices, number of transactions with other affiliated subsidiaries. This result indicates that as the relative size of a focal subsidiary increased, it tended to engage in fewer transactions with other affiliated subsidiaries. However, the other two indices, number of transactions and number of strategic functions were found to be positively related, indicating that as the subsidiary performed more strategic functions in Korea, it also tended to interact more with other affiliates, and in essence, to become more independent of its parent MNC.

Tests of Hypotheses

H1a predicted that the degree of ownership that the parent MNC held over the Korean subsidiary would increase its attempt to control the subsidiary through use of output control. As Table 3 shows, the analysis revealed a significant positive impact of degree of ownership on level of output control ($B = .23, p < .05$). Thus, H1a was supported.

H1b examined the relationship of ownership effect with staffing control. As shown in Table 4, logistic regression analysis revealed a significant main effect of level of ownership on staffing control ($B = .88, p < .05$). As predicted, the direction of this effect was positive, such that as the degree of ownership increased, so did the degree of staffing control. Thus, H1b was supported.

H2 investigated the positive moderating effect of subsidiary's relative importance on the ownership-degree of control relationship. H2a specifically predicted a moderating effect of subsidiary's transactions with other affiliates. As shown in Table 3 and 4, no moderating effect was found. Thus, H2a was not supported. H2b predicted moderating effects of subsidiary's relative size in terms of assets and employee numbers. As shown in Table 3, a significant effect was found for the output control ($B = .30, p < .05$), but not for staffing control (see Table 4). Thus, H2b was partially supported. H2c predicted a moderating effect of subsidiary's functions. No moderating effect was found for either dependent variable. Therefore, H2c was not supported.

H3a and b examined the effects of parent company nationality on both the level of output and staffing control. No significant effect was found for output control (see Table 5). Thus, H3a was not supported. However, the logistic regression examining staffing control revealed a positive and significant main effect of owner nationality on staffing control (see Table 6; $B = .56, p < .05$).² Thus, H3b was supported.

Discussion and Conclusions

In general, this study found support for agency theory and comparative management theory regarding the degree and type of control used by MNCs on their foreign subsidiaries. Concerning output control, degree of ownership was found to be directly related to the level of degree of output reporting. That is, output reporting tended to decrease when the degree of ownership control decreased from single owner to multiple minor owners.

Another way that MNCs may control their subsidiaries is through staffing control (i.e., owners staff their top positions with someone from the same culture as those at headquarters). Such staffing is a cultural type of control because the manager's nationality is reflective of parent company norms (Egelhoff, 1984; Phatak, 1989; Torbiorn, 1985). Similarly, this study found that, within MNCs operating in Korea, the level of staffing control increased with degree of ownership.

Regarding the hypothesized moderating effects of subsidiary's relative importance on the relationship between ownership level and amount of output and staffing control, supportive evidence was found only for one index of subsidiary's importance—its relative size. This suggests that as the relative size of subsidiary—in terms on assets and employee numbers—increases, the effect of ownership degree on output reporting increases. However, no moderating effect was found for other indices of importance—subsidiary's strategic functions and transactions with other subsidiaries. These results are unexpected since several prior studies have supported the relationship between these aspects of subsidiaries and degree of control. For example, the study of Mexican subsidiaries by Martinez and Ricks

Table 2. Descriptive Statistics and Correlation Coefficient

<i>Variables</i>	<i>mean</i>	<i>std. dev.</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>
1. Ownership degree	3.17	0.95	1.00								
2. Nationality of owner	0.23	0.23	0.14	1.00							
3. Output control	2.58	1.04	0.24**	0.05	1.00						
4. Staffing control	1.23	0.61	0.23**	0.31**	0.01	1.00					
5. Sub's relative size	69.06	108.61	0.04	0.10	0.12	-0.06	1.00				
6. Trans with other sub	2.21	1.85	-0.15	-0.02	-0.07	-0.02	-0.18*	1.00			
7. Sub's functions	1.40	0.81	-0.13	-0.01	0.09	0.06	0.09	0.38**	1.00		
8. Degree of centralization	1.85	0.71	0.19*	0.09	0.17*	-0.05	0.04	-0.02	-0.06	1.00	
9. Sub president tenure	4.01	1.53	0.01	-0.10	-0.02	0.03	0.04	-0.01	-0.00	-0.06	1.00
10. Age of sub in Korea	14.14	12.27	-0.21*	0.03	-0.04	0.01	0.10	-0.10	-0.06	0.04	0.23**

p* < .05 *p* < .01

(1989) found that a higher level of the interdependence in transactions with other subsidiaries was associated with a higher percentage of expatriates (staffing control). Boyacigiller (1990) investigated the control used in American MNCs in 43 countries, and found that subsidiary complexity and size were positively related to the proportion of U.S. nationals. Therefore, further investigation with research conducted on more diverse samples is required to determine why such effects did not emerge here.

Table 3. Results of Moderated Regression for Ownership Degree on Output Control

<i>Predictor Variables</i>	<i>Output Control</i>	
	<i>B</i>	<i>t</i>
Model 1		
Degree of centralization	0.01	1.82
President's tenure	0.00	-0.05
Sub's number of years in Korea	-0.05	-0.51
R^2 for variable set	NA	
R^2 for total equation	0.04	
	$F(3, 103) = 1.18$	
Model 2		
Ownership degree	0.23	2.11*
R^2 for variable	0.03	
R^2 for total equation	0.07	
	$F(4, 102) = 2.03^*$	
Model 3		
Transactions with other affiliates	0.00	0.17
Assets and employee numbers	0.28	2.40*
Subsidiary's functions	0.02	2.72**
R^2 for variable set	0.08	
R^2 for total equation	0.15	
	$F(7, 99) = 2.50^{**}$	
Model 4		
Ownership degree x		
Transactions with other affiliates	0.07	1.63
Assets and employee numbers	0.30	2.03*
Subsidiary's functions	-0.04	-0.80
R^2 for variable set	0.06	
R^2 for total equation	0.21	
	$F(10, 96) = 2.59^{**}$	

* $p < .05$, ** $p < .01$

NA: non-applicable

Regarding control type, MNC nationality was expected to be associated with the type of subsidiary control exerted by the parent company on its subsidiary. Surprisingly, no difference was found with regard to output control between US and Japan, although several cultural studies have suggested that American companies are more output-oriented than their Japanese counterparts. The failure to find a cultural effect may have resulted from an increase in output-focus by Japan, which must be investigated by further research.

On the other hand, consistent with predictions, this study found that Japanese investors exercised a higher level of cultural control (operationalized as staffing control) toward their Korean subsidiaries. This result is quite consistent with prior findings from cultural studies, suggesting the ethnocentric management style of

Table 4. Results of Logistic Moderated Regression for Ownership Degree on Staffing Control

<i>Predictor Variables</i>	<i>Staffing Control</i>	
	<i>B</i>	<i>Wald</i>
Model 1		
Degree of centralization	0.42	3.81
President's tenure	-0.89	9.93**
Sub's number of years in Korea	0.00	0.00
-2 Log Likelihood	107.55	
Model Chi-Square	16.37	
Model 2		
Ownership degree	0.88	5.52*
-2 Log Likelihood	101.12	
Model Chi-Square	22.80**	
Model 3		
Transactions with other affiliates	-0.05	0.01
Assets and employee numbers	0.18	0.39
Subsidiary's functions	2.02	3.34
-2 Log Likelihood	89.35	
Model Chi-Square	29.85**	
Model 4		
Ownership degree x		
Transactions with other affiliates	-0.33	0.22
Assets and employee numbers	0.22	0.52
Subsidiary's functions	0.03	1.79
-2 Log Likelihood	87.33	
Model Chi-Square	31.87	

* $p < .05$, ** $p < .01$

Japanese society. Such differences also have been noted by *Business Week* (1990) which noted that Japanese companies such as Canon, Sony, and Honda have top executive teams only composed of Japanese managers (high staffing control). On the other hand, American companies such as IBM and Gillette have been recognized for including several foreigners in top positions (low staffing control).

Thus, the results of this study lead to the conclusion that both American and Japanese MNCs focus on output as a means of subsidiary control, while Japanese companies utilize more cultural control than their American counterparts. Furthermore, given that the two types of control are relatively independent (see Table 2), it is possible to sum them and get an index of total management control. On examining this index, it is concluded that Japanese MNCs show a higher level of "total control" (output + staffing) than American MNCs. This finding also implies that agency costs may happen less frequently in collectivistic societies like Japan, mainly because they exert higher levels of control. This is an interesting topic for further research.

Contributions and Limitations of Research

This study enriches prior examinations of control in MNCs by integrating prior work on subsidiary theory, comparative cultural studies, and management controls. Control has been an issue of much interest in international business but has often been examined without a strong theoretical basis. Findings of this research help to fill this gap by providing a relevant theoretical paradigm for management control. Most directly, the research indicates that agency theory offers an explanation for the amount of control in MNC attempts to apply to its

Table 5. Results of Moderated Regression for Owner Nationality on Output Control

<i>Predictor Variables</i>	<i>Output Control</i>	
	<i>B</i>	<i>t</i>
Model 1		
Degree of centralization	0.01	1.82
President's tenure	0.00	-0.05
Sub's number of years in Korea	-0.05	-0.51
R^2 for variable set	NA	
R^2 for total equation	0.04	
	$F(3, 103) = 1.18$	
Model 2		
Owner nationality	0.40	0.39
R^2 for variable	0.00	
R^2 for total equation	0.04	
	$F(4, 102) = 1.90^*$	

* $p < .05$, ** $p < .01$

NA: non-applicable

foreign subsidiary, while national culture tends to explain the type of control, particularly the use of staffing control.

However, this study has several limitations that also should be noted when evaluating its contributions. First, in assessing the impact of subsidiary functions, the existence of each function (manufacturing, marketing, and R&D) was simply added together to yield a total level. In fact, however, the relative importance of each function may vary in different companies. This fact may have weakened our test results of the moderating effect of subsidiary importance. Even though supplementary regression analyses examining the separate functions found no evidence that the combining of the three functional indices distorted the effects found when running them individually, it may be that the relative importance of each function was not captured well in the combined measure.

Second, although our research intent was to survey the presidents of MNCs, it may be that other managers, lower in rank and status, rather than presidents, filled out the survey. However, this possibility in itself does not threaten the results of this research because most variables measured company information rather than psychological factors of individuals. Therefore, as long as the respondent was knowledgeable about the company information, the fact that someone other than the president completed the survey should not have caused a serious problem in interpreting the research results.

Third, it must be pointed that the levels of explained variance are very low in these results. Therefore, in order to enrich the applicability of these findings, more effort should be focused on identifying supplemental theoretical models in addition to agency theory that can increase the explained variance. Methodologically, this might be done by investigating the effects in sub-samples of American and Japanese MNCs.

Table 6. Results of Logistic Moderated Regression for Owner Nationality on Staffing Control

<i>Predictor Variables</i>	<i>B</i>	<i>Staffing Control</i>	
			<i>Wald</i>
Model 1			
Degree of centralization	0.42		3.81
President's tenure	-0.89		9.93**
Sub's number of years in Korea	0.00		0.00
-2 Log Likelihood		107.55	
Model Chi-Square		16.37	
Model 2			
Owner Nationality	0.56		5.06*
-2 Log Likelihood		101.12	
Model Chi-Square		22.80**	

* $p < .05$, ** $p < .01$

Finally, the investigation of other types of control along with output and staffing control is suggested for future research. The geographical and cultural distance between headquarters and subsidiaries in MNC relationships increases the complexity of the underlying agency relationship. Accordingly, more diverse types of control may be used by MNCs, including strategic control or informal control, in order to obtain more subjective and subtle information about the foreign subsidiaries. Because this study investigated only the two most typical control types, output and cultural, future research is needed to further investigate the other types of control in MNCs.

Appendix A

**The categorization is made according to the concept of relative power.
The logic behind the scaling of values as follows.**

If the first owner holds:

- (1) 100%: it means a single owner.
- (2) $50\% \leq$ and $< 100\%$: it guarantees that the company is the largest owner but its power of the first owner will likely be decreased, as compared to (1), due to the second owner. 50% is regarded as a line beyond which the first owner's high involvement is fairly certain. With more than 50% ownership, the company is expected to feel owner-like responsibility toward the subsidiary.
- (3) $20\% \leq$ and $< 50\%$ conveys more widespread ownership than (2). Therefore, the relative power of the first owner must have been decreased. A 10% difference is assumed to indicate power differentiation.
- (4) $< 20\%$, but higher than the second owner by 10%: this case should be distinguished from the last case (5) because the first owner still may differentiate itself by holding 10% more than the second owner.
- (5) multiple owners: the remaining cases were regarded as widespread ownership and, thus, the lowest level of power for the owner.

Appendix B

Items Used To Measure Output Control (from Egelhoff, 1988)

Q: "How often do you report to your parent company regarding,"

not at all	daily/weekly	monthly	quarterly	annually
1	2	3	4	5

(sample items)

- (a) total sales revenue
- (b) sales revenue by product line
- (c) sales revenue by product line
- (d) sales revenue by product line

- (e) sales from specific accounts
- (f) components of selling expense

Notes

1. Verification of the classification information such as nationality and ownership that was provided to us by MNCs on the surveys was carried out in two ways. First, we examined the four published sources originally used to identify the organizations in our sample. Although three of these sources did not provide any information collected in our surveys, the fourth, "Foreign Branches/Subsidiaries in Korea," produced by the Bank of Korea includes the nationality of foreign MNCs, as well as the percentage of ownership they have in various subsidiaries. However, even when using the "Foreign Branches/Subsidiaries Book," we were able to find information for only 14 companies out of the 107 used in the sample. Analysis used to assess the level of agreement between the book and the surveys on nationality and ownership in these fourteen companies yielded a correlation of .97 for the percentage of ownership and .99 for nationality. Thus, the level of agreement yielded by these 14 companies suggests that the accuracy of the data collected on the surveys was quite high. As a second means of verification, while the research was underway, we reviewed the incoming questionnaire and made another attempt to verify information about owner nationality, president nationality.
2. Regression analyses were used with the two size items, assets size and employee numbers separately. An interaction effect was found only in number of employees. Therefore, it can be suggested that number of employees has more effect than size of assets.

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