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**MEASUREMENT, EVALUATION AND REWARD
OF PROFIT CENTER MANAGERS: A CROSS-
CULTURAL FIELD STUDY**

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Abstract

This study was designed to explore differences between the U.S. and Taiwanese firms in measuring, evaluating and rewarding profit center managers, a subject which has not been addressed in the research literature. Five research propositions were developed based on a review of the existing literature on the effects of differences in national culture. Because of the early, tentative state of theory development, however, we chose to explore these propositions intensively in four firms, two in each country, matched on industry, existence of multiple profit centers, and, to some extent, size. This choice emphasized situational understanding and richness of description over statistical significance of findings.

The findings provide some support for the existence of a link between aspects of national culture and measurement, evaluation and reward practices. In particular, as compared to U.S. firms, we found that Taiwanese firms use smaller performance-dependent incentives and are less likely to offer long-term (multi-year) incentives. We concluded, however, that the overall impact of national culture on this set of control practices is relatively minor. We discuss a list of other variables that seem to be more significant than national culture in explaining differences between the practices of the firms in the two countries. This list includes: education and experience of senior managers, company's stage of economic development, beliefs about the stock market, type of business, labor force mobility, and company growth patterns.

Measurement, Evaluation and Reward of Profit Center Managers:
A Cross-Cultural Field Study

In the current era of rapidly accelerating globalization of business, managers are increasingly interested in knowledge as to whether the control practices which are effective in one country can be used effectively in another (Bartlett and Ghoshal, 1989; Birnberg and Snodgrass, 1988; Child, 1981; Itami, 1991; Steers, 1989; Yang, 1984). Managers of multinational corporations must be concerned with questions as to whether the control practices they are using in their home country must be modified for use in other national settings, and if so, how. And managers of all firms can benefit from "global benchmarking"; they should consider the extent to which they can profitably import or emulate elements of the control systems that successful foreign competitors are using.

Applying control practices across cultures is fraught with risk, however, because there is accumulating evidence that people of different national origins have different preferences for, and reactions to, management controls (Adler et al, 1986; Hofstede, 1980, 1991; Birnberg and Snodgrass, 1988; Chow et al, 1991; Kreder and Zeller, 1988). Thus, controls which are effective when applied to one national group may be a source of competitive disadvantage when applied to another. Such disadvantages can arise by increasing the costs of attracting and retaining employees, by affecting the attributes of employees attracted to the firm, and/or by inducing employee behaviors that are contrary to the firm's interests.

This study was designed to explore cultural effects on one of the core set of control variables--those related to measurements, evaluations, and rewards--and to address two important voids in the control-related cultural-effects literature: the lack of focus on the profit center level of analysis and

the failure to devote much attention to the important *Chinese* culture. The lack of attention paid to the profit center level of analysis in cultural studies is significant because the profit center form of organization dominates among business firms of even minimal size (Merchant, 1985; Reece and Cool, 1978; Vancil, 1979),¹ and proper motivation of these managers is important to firms' strategic executions. Profit center managers typically have significant authority over both manufacturing and marketing and must make trade-offs between these two critical business functions. These trade-offs are so important that Porter (1980) has suggested the profit center organization level is where a firm's competitive advantage is generally won or lost. The lack of attention paid to the Chinese culture is also significant because of this culture's long history, world importance, and sharp contrasts with Western cultures (e.g., Hofstede, 1980, 1991; Chinese Cultural Connection, 1987). In fact, particularly because of the recent, rapid industrial growth of the People's Republic of China, many experts predict that the Chinese culture will be one of the dominant cultures on the world stage in the 21st century. In this study, the impact of the Chinese culture on profit center manager evaluations and incentives is studied in Taiwan, which is a relatively advanced, industrialized nation and significantly larger than other advanced-nation, Chinese-study possibilities, notably Hong Kong and Singapore.

Our exploration was guided at a general level by the extant literature on national culture differences. We explored some formal theoretical propositions but, because of the dearth of prior findings on the topic, we chose a small sample-size design to emphasize situational understanding and richness of description over statistical significance of findings. We used semi-structured, in-depth interviews for data collection because they provided opportunities to follow-up on unexpected findings and revelations. The sample consisted of two matched (on industry and size) pairs of manufacturing firms.

The remainder of this paper is organized as follows. In the next section, we discuss the construct of national culture and the literature suggesting links between aspects of national culture and managers' control system choices. The second section presents some formal theoretical propositions stating expectations about differences between Taiwanese and U.S. firms' approaches to profit center-level measurements, evaluations and rewards. The third section describes the research method. Then we discuss the findings, both related specifically to the research propositions and to ways in which the theory can be extended. In the final section, we highlight the limitations of the study.

Making the National Culture Construct Operational

Many researchers have proposed definitions and taxonomies of national culture (e.g., Hofstede, 1980, 1991; Child, 1981; Brislin, 1983; Triandis, 1984; Schein, 1985; Adler et al., 1986). Of these, Hofstede's constructs are the most widely used in business and accounting research (Gdykunst and Ting-Toomey, 1988; Jaeger, 1984; Kreacic and Marsh, 1986; Ronen and Shenkar, 1985; Soeters and Schreuder, 1988; Triandis, 1984). Hofstede (1980, p.25) defined national culture as "...the collective programming of the mind which distinguishes the members of one group or society from another..." Based on a survey of 116,000 workers from 72 countries, Hofstede (1980, 1983b) identified four work-related cultural dimensions along which individuals in the countries differed. He also suggested (1980, 1983a, 1984, 1991), though without providing formal empirical evidence, specific relationships among these cultural dimensions and individuals' preferences for, and reactions to, alternate management controls.

Hofstede's four cultural dimensions are as follows:

Individualism vs. Collectivism. This dimension relates to individuals' self concept: "I" or

"we". In a collective culture, the individual is motivated by group interests and emphasizes the maintenance of interpersonal harmony. In contrast, individuals from an individualistic culture tend to place their self-interests ahead of those of the group, and prefer interpersonal conflict resolution over conflict suppression. Hofstede suggested that in an employment setting, people who are high in individualism tend to prefer individual-oriented, rather than group-oriented work arrangements, performance evaluations, and compensation.

Large vs. Small Power Distance. This dimension relates to the extent to which members of a society accept that power in institutions and organizations is distributed unequally. Hofstede suggested that people who are high in power distance tend to prefer, or at least more willingly accept, greater centralization of decision making authority and less participation in decision making processes.

Strong vs. Weak Uncertainty Avoidance. This is the degree to which members of a society feel uncomfortable with uncertainty and ambiguity. Hofstede suggested that people high in uncertainty avoidance prefer to avoid, reduce, or deny uncertainty by relying on written or unwritten rules of behavior, structuring of activities, and standardization of procedures.

Masculinity vs. Femininity. This dimension relates to the preference for achievement, assertiveness and material success, as opposed to an emphasis on relationships, modesty and the quality of life. Hofstede suggested that people high in masculinity tend to prefer basing rewards on performance, whereas those high on femininity prefer allocations based on need.

Hofstede (1980, 1991) gathered data from large samples of workers from Taiwan and the U.S. and found that the two groups' scores are significantly different on all four cultural dimensions:

<u>Cultural Dimension</u>	<u>Taiwan</u>	<u>U.S.</u>
Individualism	17	91
Power Distance	58	40
Uncertainty Avoidance	69	46
Masculinity	45	62

Thus, as compared to the Taiwanese culture, the U.S. culture is much more individualistic and more masculine, while the Taiwanese culture is higher in both power distance and uncertainty avoidance. Since Hofstede suggested links between each cultural dimension and preferences for management control features, some of which relate directly to performance evaluations and incentives, these data provide a basis for establishing research hypotheses to be tested and explored.

Other studies have found support for Hofstede's taxonomy and findings. Regarding Hofstede's individualism dimension: much research has isolated the self-interest motive as being the cornerstone of American worldview and management theories (e.g., Harris and Moran, 1987; Locke and Latham, 1984; Mitchell, 1974; Sampson, 1977; Spence, 1985; Triandis et al., 1988), while students of Chinese culture (of which Taiwan is substantially part) have repeatedly cited Chinese society's emphasis on both subjugating one's own interests to those of the collective and the avoidance of interpersonal conflict (e.g., Hui and Triandis, 1986; Leung and Bond, 1984; Lin, 1977; Redding, 1980). Another oft-cited characteristic of Chinese culture is related to Hofstede's power distance dimension. Chinese culture has a high regard for hierarchy in which everyone has his/her assigned place, and in which individuals in superior positions are accorded a wide range of prerogatives and authority over those below them (Bond and Hwang, 1986; Hofheinz and Calder, 1982; King and Bond, 1985). This cultural outlook is reflected in the Five Cardinal Relationships central to Chinese

tradition -- ruler-subject, father-son, older brother-younger brother, husband-wife, and senior friend-junior friend -- four of which are explicitly vertical (Redding and Wong, 1986).

More specifically related to the current research is the study by the Chinese Cultural Connection (1987). This study sought to address the concern that Hofstede's taxonomy may be culturally biased due to its being based on Western thinking. A list of 40 values (e.g., filial piety, humbleness, adaptability) was developed by a sequential process of analyzing the Chinese literature on work and culture and surveying respected researchers of Chinese culture. This list was used to collect preference data from university students from 23 countries (both Asian and Western) with prior work experience. Factor analysis of the data yielded a model with four dimensions, of which three were significantly correlated with three of Hofstede's dimensions: individualism, power distance, and masculinity. Hence, one implication of these results is that Hofstede's taxonomy can be reliably applied to a study comparing Taiwanese and U.S. management practices.

The Chinese Cultural Connection (1987) study, however, found an additional dimension along which Taiwanese and U.S. national cultures differ which was labelled Confucian Work Dynamism. This dimension was comprised of eight values: ordering relationships by status and observing this order, thrift, persistence, having a sense of shame, reciprocation of greetings, favors and gifts, personal steadiness and stability, protecting one's "face," and respect for tradition. U.S. managers score much lower on this dimension than do Taiwanese managers (29 vs. 87). Subsequent research by Hofstede and Bond (1988) and Hofstede (1991) suggested that this cultural dimension is related to the length of individuals' time orientation, the extent to which they focus on long-term, as opposed to short-term, goals and concerns.

Theoretical Propositions

As the discussion in the preceding paragraphs suggests, the extant literature on national culture does not contain highly focused predictions or evidence about specific evaluation and compensation variables (e.g., the preferred mix of fixed salary and performance-dependent compensation) at profit center (or any other) levels in the firms. It provides the basis only for macro-level expectations. But we have taken these data and predictions and used them to construct five theoretical propositions about how Taiwanese and U.S. firms differ in evaluating and rewarding profit center managers. Exploration of these propositions guided much of our interviewing, and we also use them in this paper to organize the discussion of findings:

Proposition 1: Taiwanese firms offer smaller performance-dependent monetary rewards than do U.S. firms.

Four cultural arguments support this proposition. First, higher collectivism, in and of itself, provides greater assurance that individual managers voluntarily take actions that further the interests of the firm, so performance-dependent rewards are not as necessary to reduce "agency costs." Second, performance-dependent rewards accentuate interpersonal differences and introduce interpersonal rivalry, and both of these conditions are probably more distasteful in the Taiwanese culture which is relatively high in collectivism. Third, the lower masculinity of the Taiwanese culture implies that managers place a lower value on monetary incentives. Fourth, performance-dependent, as opposed to fixed compensation increases the risk imposed on employees. This risk runs counter to the preferences of a relatively high uncertainty avoidance national culture, such as that of Taiwan.

Proposition 2: For the performance-dependent rewards they give, Taiwanese firms are more likely to base the rewards on group, rather than individual, performance than are U.S. firms.

We are not sure about the cultural effects on this important individual-vs.-group measurement variable, but two arguments support the proposition as it is stated. First, group-based rewards fit better with the higher collectivism in the Taiwanese culture. And second, group-based performance measures facilitate the sharing of risk, which fits the preferences of a culture high in uncertainty avoidance. On the other hand, cooperation and coordination seem to be increasingly important to firm success in the current competitive environment, and U.S. firms may have a greater need for group-based performance measures and rewards to overcome the higher U.S. individualism. This is a proposition that needs to be explored.

Proposition 3 As compared to U.S. firms, Taiwanese firms make less use of long-term (multiple-year) incentives.

This proposition is supported by two cultural arguments. First, the higher Confucian Work Dynamism of the Taiwanese makes it less necessary to encourage a long term perspective. Second, the higher collectivism of the Taiwanese provides greater assurance that they will not sacrifice the firm's long-term interest for their own short-term gain.

Proposition 4 Relative to those in U.S. firms, performance evaluations of profit center managers in Taiwanese firms are more subjective.

Because power distance is higher in the Taiwanese culture, Taiwanese managers are more likely to prefer or to accept greater discretionary power being left in their superiors' hands. In contrast, because U.S. culture is lower in power distance, U.S. managers should be less likely to prefer or to accept performance measures that leave a lot of discretion to their superiors. Thus we expect U.S. firms to make greater use of objective performance measures and preset performance standards.

Proposition 5 As compared to managers in U.S. firms, managers in Taiwanese firms are more prone to make adjustments for the effects of uncontrollable factors that affected profit center managers' performance measures.

This proposition is supported by two arguments. First, the relatively high uncertainty avoidance in Taiwan suggest a greater preference for shielding managers from the risk caused by uncontrollable factors. Second, adjustments for the effects of uncontrollable factors often involve the use of subjective judgments (Merchant, 1989), and the higher power distance in the Taiwanese culture makes Taiwanese managers more likely to accept greater evaluation discretion being left in their superiors' hands.

Research Method

We choice to explore these research propositions with a field study built around a series of intensive, open-ended interviews. This research choice provided several important advantages. Knowledge in this area is at an early stage of development, and field interviews allow for detailed explorations of the "how" and "why" questions that "favor the use of case (field) studies, experiments, or histories" (Yin, 1989, p. 19). Within this set of method options, the choice of a field study was obvious. Historical studies were not possible because written histories of these phenomena do not exist, and construction of an experiment with reasonable external validity would be problematic, at best. The field study method permitted testing of the theoretical propositions stated above, modifying the propositions and then testing the modified propositions, and developing interesting new propositions not previously anticipated. The primary research method alternative, a questionnaire survey, might have been able to test the specific propositions described above, but it would not have allowed for detailed explorations of the terrain. Another argument supporting the field study choice: Most firms regard the issues of performance evaluations and incentives,

particularly at high management levels, and sensitive, and the field research method² is "the method of choice in studying sensitive topics" (Lee, 1993, p. 119).

The field study was conducted in two U.S. and two Taiwanese firms. We chose to study companies headquartered in each of the two countries so that the cultural effects on management practices would be as strong and pure as possible. The primary sample selection alternative would have been to study one or more multinational corporations employing people both in the U.S. and Taiwan, but those corporations' employees' preferences are likely to be homogenized through their common experiences with the corporation's management practices and, more broadly, corporate culture. Focusing study on domestic corporations and managers is based on the belief that firms' domestic management practices evolve over time to adapt to relevant features of their home country's work-related cultures.

A large number of studies have adopted the approach of studying domestic corporations and documented systematic cross-national differences in many management control-related practices, including long range planning and strategic decision making processes, organization structure, budgeting, performance evaluations, and cost accounting methods (e.g., Anyane-Ntow, 1987; Bailes and Assada, 1991; Birnberg and Snodgrass, 1988; Daley et al., 1985; Horovitz, 1980; Inzerilli and Laurent, 1983; Kreder and Zeller, 1988; Laurent, 1983; Lincoln et al, 1986; Lincoln and McBride, 1987; Pucik and Hatvany, 1983; Snodgrass and Grant, 1986).

We selected our sample of firms so as to produce a limited form of a "natural experiment," a matched-firm comparison with the findings of a U.S.-based study by Merchant (1989). Not all of the firms Merchant (1989) studied have Taiwanese counterparts, but we identified two Taiwan-based firms that provided reasonably close matches to two of Merchant's U.S.-based firms in terms of

industry, existence of multiple profit centers, and, to some extent, size. In addition, each of these firms is arguably successful, as each has been in existence and has grown significantly over the last few decades.

1. One of the matches is in the chemical industry. Both the U.S. firm (hereafter "US-Chem") and the Taiwanese firm ("T-Chem") are multinational companies that produce and sell a broad range of chemicals, and both have a number of non-chemical businesses. And both firms are large, with annual revenues in excess of US\$5 billion.
2. The other match is in the electronics industry. Both "US-Elec" and "T-Elec" manufacture and sell a broad range of electronic products and appliances for both consumer and commercial markets. Annual revenues for US-Elec are slightly less than \$2 billion; for T-Elec they are nearly US\$500 million.³

We contacted each of the Taiwanese firms by approaching top management and secured permission for our study. We replicated Merchant's research method as closely as possible. In both firms, we began the study by interviewing corporate personnel, including high-level general, financial, and personnel managers. These interviews were used to gather information on the company's businesses, organizational structure, and management systems, including its performance measurement and incentive systems. During these interviews, we collected as many relevant documents as we could to corroborate the interview responses.

Then we interviewed a sample of managers at the lowest level of profit center (i.e., where the marketing and production functions first come together). In most cases, we also interviewed the profit center manager's immediate superior and some of his⁴ functional managers. These interviews with operating managers helped us understand how the performance measures were tailored to the

various profit centers, how subjectivity was used in performance evaluations (if at all), what the operating managers thought of the measurement, evaluation and incentive system, and how the system affected their behaviors. In both firms, we returned with follow-up questions for some managers.

In total, we conducted interviews with 13 managers, including 3 profit center managers, in T-Chem, and 10 managers, including 4 profit center managers, in T-Elec. The formal interviewing in these two firms took approximately 40 hours. To get a feel for the extent to which the findings in these two firms are broadly representative of Taiwanese firms' practices), we also conducted interviews on a more limited basis in another Taiwanese electronics firm which had multiple profit centers but was not considered as good a match with US-Elec as was T-Elec (9 managers for a total of 12 hours) and with consultants in two compensation consulting firms with offices in Taipei.⁵ Some interviews were conducted in English, but most were conducted at least partially in Chinese. When the interviews were conducted in Chinese, the questions and responses were translated simultaneously.

Findings

In our study, we found some significant similarities among all four firms' incentive plans. All the firms have an annual incentive compensation program offering bonuses to profit center managers. All provide rewards in cash.⁶ Managers in all four firms place primary importance on financial measures of performance, but they also track a wide range of other performance measures and consider them in performance evaluations. In all four companies, the most important performance standards are those negotiated during an annual planning process. We conclude that all these variables are not greatly sensitive to cultural effects.

Proposition 1 stated the expectation that Taiwanese firms offer smaller performance-dependent monetary rewards than do U.S. firms. This proposition appears not to be supported by the field study data collected, but we did gather some data that suggests that the proposition would hold if a larger sample of Taiwanese firms had been studied.

As is shown in Table 1, the annual bonuses the two Taiwanese firms offer are at least as large as those offered by the U.S. firms. T-Elec's maximum potential bonus is slightly larger than that of U.S.-Elec (71% vs. 67.5% of base salary). And T-Chem's target bonus (what the firms expect to give) is considerably larger than that of U.S.-Chem (100+%, as compared to 35%). The Taiwanese compensation consultants we interviewed said, however, that on this size-of-awards dimension T-Chem is an outlier in Taiwan; its bonuses far exceed the norm.

Insert Table 1 About Here

Because of the high potential that the T-Chem data were not representative of Taiwanese practice, we sought broader-based data describing the sizes of incentive compensation awards given in Taiwanese firms. Public data describing practices at profit center organization levels do not exist, but we were able to gather a little information suggesting that, on average, performance-dependent monetary rewards in Taiwanese firms are probably still slightly smaller than in U.S. firms. Merchant (1989) reported that typical annual bonuses for U.S. profit center managers are in the range of 35% of salary, although the range in just the 12 companies he studied was broad, from 10-100% of salary. A recent survey conducted in Taiwan by the Hay Group (1992) showed that the average cash bonus

paid to employees in jobs rated at 1,000 Hay Points (slightly below profit-center-manager level) was approximately 15% of salary. A similar survey of Taiwanese practice by the Wyatt Company (1991) showed that the median firms in both the electronics and chemical/petrochemical industries provided a performance bonus of approximately one month salary. In the firms in the high-tech industry which provide bonuses, only 14% offered bonuses of 3 months salary or greater; half paid bonuses of one month salary or less. The same pattern was found to be true in the chemical industry: 80% of the firms paid bonuses of less than 2 months salary. Thus, we conclude that broad surveys of U.S. and Taiwanese bonus practices would probably support Proposition 1 the way we stated it: As compared to U.S. firms, Taiwanese firms offer smaller performance-dependent rewards.

Proposition 2 stated the tentative expectation that as compared to those given in U.S. firms, performance-dependent rewards given in Taiwanese firms are more likely to be based on group, rather than individual, performance. Our findings provide no evidence that culture has a significant effect on this measurement choice.

Merchant (1989) explained that profit center managers' bonus awards can be affected by group performance in any of three ways. First, some companies make awards to individuals which are totally dependent on the performance of the corporation or a smaller entity of which the profit center is a part (e.g., group, sector). A common example of this type of program is a "profit sharing" plan which allocates a share of the corporation's profits to employees in proportion to each employee's compensation. Of these four firms, only U.S.-Elec has such a plan.

Stock-based plans also provide rewards based on group performance. The two U.S. firms have plans designed to get equity into the hands of management; the Taiwanese firms do not. U.S.-Chem and U.S.-Elec both have a *stock option plan* that annually awards managers (including profit

center managers) stock options with a 10-year horizon. Both U.S. corporations also have a *stock purchase plan* for all employees. U.S.-Chem's plan allows the purchase of company stock with no commission charge and with payments made with money borrowed from the company at zero interest to be repaid over three years. U.S.-Elec's plan allows employees to contribute part of their compensation for purchase of company stock, and the corporation matches 25% of the contribution, up to a maximum of 1.5% of the employee's compensation.

Second, some companies base annual incentive payments partially on the performance of a higher-level entity or on an individual's contribution to a group effort (e.g., cooperation, teamwork). The two U.S. firms use this incentive plan feature; neither Taiwanese firm does. In U.S.-Elec, 25% of the bonus awards are assigned based on the performance of the immediately higher organization level (Corporate or Group). In U.S.-Chem, the blend is between profit center and corporate performance. Bonuses for managers of large profit centers are based 50% on profit center performance, measured mostly in financial terms, and 50% based on corporate profit-after-tax. (The importance weighting placed on corporate performance is lower for smaller profit centers.) In T-Chem, performance evaluations of profit center managers are done subjectively, but the corporate and division managers we talked stated that only the performance of the profit center is considered, with the highest weighting of importance consistently placed on percent of profit targets attained. In T-Elec, performance targets are negotiated between the profit center manager and his immediate superior, and we found no examples where any of these targets related to group performance.

Third, some companies link bonus payments to individuals based on group performance by funding a "bonus pool" based on corporate performance. All four firms studied use this feature. In T-Elec, annual corporate performance directly affects the size of the bonus pool. In T-Chem, the

variation occurs over a longer period of time, as one corporate manager explained:

[The total bonus amounts] are put in the budget at a fixed number and are not varied by the actual profit for the year. If the corporation earns a big profit, corporate managers take a portion of the bonus and put it in "the bank" to save for another year. If this year is no good and next year is no good, then maybe we will consider a lower bonus. It makes the situation more steady.

In U.S.-Chem, the size of the bonus pool is affected by corporate performance only if corporate or group profits deviate significantly from budget; the pool is funded at the planned amount if actual performance is in the range of 90-105% of budget. U.S.-Elec compares its return-on-equity (ROE) performance with that of the Scoreboard Companies reported in Business Week. No bonus pool is created unless the company ROE exceeds 25% of the Scoreboard companies, and the higher the ROE performance, the larger the pool.

These data seem to suggest that national culture does not provide a strong effect on this design choice--the link between group performance and individual incentive awards. All four firms have such a link. They use different methods, but the result appears approximately the same--profit center managers in all four companies know that their individual awards are affected significantly by corporate performance.

Proposition 3 stated the expectation that as compared to U.S. firms, Taiwanese firms make less use of long-term (multiple-year) incentives. Our findings support this proposition. Neither Taiwanese firm's evaluation/reward system has a long term component, while both U.S. firms tie part of their profit center managers' rewards to long term performance.

US-Chem uses a long-term incentive plan that offers senior managers (including most profit center managers) cash payments based on the corporation's achievement of earnings-per-share and return-on-capital goals over three-year performance cycles. These awards are designed to be

approximately one-half as lucrative as the short-term awards. It also has a long-term incentive plan based on operating group performance for employees in one non-core (non-chemical business) group that was recently acquired. But corporate managers have no plans to implement a similar long-term plan (based on multi-year operating-group performance) in other entities.

US-Elec has what it calls a "medium-term" incentive plan. It provides 40 top-level managers (including all profit center managers) awards based on corporate return-on-equity as compared to that of comparable firms over a three-year period. The company also uses a stock option plan which gives a small number of options to approximately 200 employees, including all profit center managers.

Proposition 4 stated the expectation that relative to those in U.S. firms, performance evaluations of profit center managers in Taiwanese firms are more subjective. Our findings do not suggest that national culture is an important factor in affecting the use of subjectivity. We found more within-country than across-company variance.

Of the four firms we studied, the most highly subjective evaluations were done in T-Chem. T-Chem profit center managers believed that they were evaluated based on an long list of controllable factors, including profit (to the extent it was controllable), units sold, product quality, efficiency, use of capacity, cost of maintenance, and leadership. And top T-Chem managers admitted they use their evaluation discretion to reward individual skill, individual effort, teamwork, position, and years on the job. The profit center managers are told their performance ratings, but they are not told the factors causing it.

The T-Chem managers were not troubled by the use of this subjectivity however, and they expressed their belief that subjectivity in evaluating performance is typically Taiwanese. For example,

one profit center manager in T-Chem said:

We don't ask [about the judgments causing our performance rating]. It is the Chinese culture to accept subjectivity. We consider more factors, including management ability, years in the company, teamwork, cooperation, the situation, the person's potential for the future, and the creation of product or management potential for the future. And we evaluate performance subjectively because some factors are not easy to evaluate. It is not easy to put everything into a formula.

The T-Chem managers' tastes for subjectivity cannot be generalized across Taiwan, however, because T-Elec's system is totally objective; the measured results map directly into rewards paid. T-Elec uses two incentive plans. One, the Individual Evaluation System, is an management-by-objectives (MBO)-type system offering bonus potentials of up to 6-months salary (the recent average was 2.5-months salary) to managers at all organization levels. Annually, the managers and their immediate superiors negotiated performance measures and standards and their weighting. Profit center-level financial measures, such as revenue, profit before tax, expenses, and receivables, dominated the measures by which the profit center managers were evaluated.

T-Elec's other system, an Entity Evaluation System designed for only the top managers in the firm (including all profit center managers), offers bonuses of up to 2 1/2-months salary based their profit center's performance in three areas:

1. Revenue (revenue attained, revenue growth over last year, new product revenue vs. total revenue);
2. Profit before tax (PBT attained, PBT growth over last year, Return on assets, PBT/person) as compared with budget;
3. Quality management (warranty expense, inspection failure rate, percent on-time deliveries, quality assurance).

Points are assigned for performance in each of the three areas, as is shown in Table 2. The performance areas are weighted to come to an overall point score for each profit center. The

weightings are varied across profit centers, as is shown in Table 3, to reflect the priorities in their businesses. The weightings have remained fixed for the two years in which the system has operated, but managers said they might vary them over time as business conditions change. The overall point score is linked directly with incentive awards as follows:

1. If a manager achieves either his PBT goal or 60 points, he earns a bonus of 2-months salary.
2. If he earns both the PBT goal and 60 points, he earns another 1/2 month salary, plus an achievement medal.
3. If he fails to achieve 60 points, penalties are assessed:
 - a. For points from 50-50.99, deduct 1/2 month salary;
 - b. For < 50 points, deduct another 1/2 month salary, plus the manager is asked to resign.⁷

Insert Tables 2 and 3 About Here

The U.S. firms' practices are significantly different, with U.S.-Elec managers using significantly more subjectivity in performance evaluations than those in U.S.-Chem. U.S.-Elec uses an MBO-type system requiring profit center managers and their immediate superiors to agree in writing on no more than five, "very meaningful," "stretch" objectives. End-of-year performance evaluations, however, are subjective because, as the company incentive plan documentation states, "Because conditions and environments change, objectives set at the beginning of the year may become obsolete, may be pre-empted by more important objectives, or may become impossible to accomplish." Thus, superiors are asked to rate their subordinates on five point scale, from

"Outstanding" to "Unacceptable." These ratings map directly into incentive awards. Individuals rated unacceptable earn nothing. Those rated outstanding earn 50% more than those rated at the midpoint ("Meets Expectations").

U.S.-Chem uses an MBO-type system, similar to that of U.S.-Elec, built on "four or five succinct, measurable results areas," most of which are financial. At the beginning of the year, profit center managers and their immediate superiors negotiate the result areas, importance weightings, and targets. Normally, the quantitative results are linked directly with the bonus award, but the system allows for the possibility of subjective override, and managers described a few examples where subjectivity had been used. For example, one profit center manager explained:

Last year we had a lot of write-offs and didn't make any of our targets. But I asked for a partial payout my management team. I thought we had performed very well in a difficult year, and I wanted some recognition of that. [My superior] asked me to nominate one or two people for special awards, but I thought it was more important to reward all of us, as a team. He gave us 50% [of what would have been earned had the targets been achieved]. It was a very pleasant surprise.

Proposition 5 stated the expectation that as compared to managers in U.S. firms, managers in Taiwanese firms are more prone to make adjustments for the effects of uncontrollable factors that affected profit center managers' performance measures. The findings regarding this aspect of the evaluation/reward system parallel those of proposition 4 because at profit center organization levels adjustments for uncontrollables tend to be made subjectively.

As in the use of subjectivity in performance evaluations, the adjustments-for-uncontrollables practices of the two Taiwanese firms are widely divergent. Managers in T-Elec *never* make adjustments for uncontrollable factors for purposes of assigning bonuses, although they acknowledge they will "consider situations" when deciding if low-performance managers should keep their jobs. Managers in T-Chem, on the other hand, make adjustments for bonus purposes *often*, nearly every

year for every manager. The corporate accounting staff routinely does a detailed analysis of each division's performance to understand "where the profit came from and if the profit produced is reasonable given the circumstances faced." Among the factors they described as often being eliminated from consideration in performance evaluations were changes in market prices (in most of the chemical businesses which sell commodity products), changes in some raw material prices (e.g., petrochemicals), major problems deemed to be outside the manager's control (e.g., a fire caused by lightning, a shortage of supply of power), and expenditures approved by top management after the plan was finalized. T-Chem's adjustments for uncontrollables are also made in both directions; i.e., both to benefit or penalize the managers. For example, one profit center manager said, "Sometimes we earn a nice profit but the president doesn't give us credit for it. He says, 'It was not your impact.'"

As was discussed above in the Proposition 4 section of the paper, both U.S. firms allow immediate superiors for the possibility for subjective adjustments for the effects of uncontrollable factors. They are made much more often in U.S.-Elec. Both firms also allow for corporate-level adjustments to the size of the bonus pool, but these are made relatively rarely. In U.S.-Chem, the incentive plan explicitly allows the board of directors to adjust the bonus pool subjectively for non-recurring situations not built into the annual plan that had a material effect on corporate net income, taking into consideration:

- performance in light of competition
- the economy
- the quality of our performance
- the motivational impact of the award.

Over the years, the U.S.-Chem board has made a few of these bonus pool adjustments. Managers gave examples of acquisitions and a significant extinguishment of debt. U.S.-Elec's board of directors

is given the power to adjust the size of the bonus pool up or down based on the achievement of strategic, non-financial corporate objectives, but it has not yet exercised this power.

Discussion

The basic question posed in this study is: Do cultural differences between the U.S. and Taiwan affect firms' practices for measuring, evaluating, and rewarding profit center managers? The answer to this question is undoubtedly yes with regard to some practices. In particular, culture seems to be significantly associated with the size of performance dependent monetary awards and use of long-term incentives.

Culture might also be associated with control variables other than those explicitly mentioned in the research propositions. For example, T-Elec's incentive plan has a unique feature: It uses a penalty structure to take money away from low-performing managers. Perhaps this tolerance for motivation through penalties, rather than rewards, is related to national culture.

Overall, however, the impact of national culture on this set of control practices is probably relatively minor. Many factors appear to shape measurement/evaluation/reward practices, and no one set of them (e.g., cultural factors) may explain a dominant proportion of the variance. For example, differences in U.S. and Taiwanese control practices appear to be influenced by all of the following factors:

1. Education and experience of senior managers. Profit center managers' evaluators are invariably high-level, senior managers within the firm, and it is the mind-set (culture) of these influential managers, not that of people in the nation as a whole which affects styles of measurement, evaluation, and reward. In Taiwan, some aspects of senior management culture seem to be changing, primarily because of greater recent contact with the Western world. Many Taiwanese managers are

receiving some of their education in the West, and trading barriers have been broken down; the U.S. surpassed Japan as Taiwan's number-one trading partner in the first quarter of 1985.

This increased contact appears to be changing some aspects of the way senior Taiwanese managers "think, feel and act" (Hofstede, 1991, p. 3), in other words, their "culture." These cultural changes are, in turn, reflected in Taiwanese firms' management practices. For example, while performance-dependent monetary rewards in Taiwanese firms appear to be smaller, on average, than in U.S. firms, we learned from the Taiwanese compensation consultants that Taiwanese firms are rapidly increasing the performance-dependent component of employee compensation. One reported that:

There has been a noticeable increase in the number of companies introducing an element of variable payment, such as performance bonuses or profit sharing, in their compensation packages....

The old Chinese generation is more Japanese-style, because they have been governed by the Japanese; many had close working relationships with Japanese; they speak Japanese; and some were educated in Japan. They like the Japanese philosophies of building teams, allowing participation. They think that merely having a job is nice, and they don't think about the pay-for-performance issue. The new generation has traveled abroad more; they're more Westernized; they speak English, and they want pay related to performance.

A comment by a corporate manager at T-Chem supports this conclusion:

As long as [our chairman] stays, our system will stay the same. He is the founder; he knows everything very well. When the chairman changes, things might be different. One man's leadership can have a significant effect.

The second generation of Taiwanese managers, some of whom are now assuming top management positions, is more likely to have been educated in U.S. or Western Europe, and they speak English, but not Japanese. Some of these managers told us they believe that as compared with Japanese, Chinese people are more concerned about their individual self, not the group, and that

when they are forced to work together, they are not that successful.

What does this generational change suggest for the future of Taiwanese management and, in particular, measurement/evaluation/incentive practices? It may be that T-Elec, which now uses the relatively objective American model of performance evaluation and incentive system, is a precursor of the Taiwanese firm of the future, with an emphasis on management (of larger firms) by systems rather than a strong central figure.

2. Company's stage of economic development. Most Taiwanese firms are younger and are at an earlier stage of development than most U.S. firms. Taiwan has a smaller core of professional managers (per capita) than the U.S., and the Taiwanese firms' management practices and procedures are not as well established. Many Taiwanese firms (including the two studied here) were founded by smart managers with good vision who surrounded themselves with a group of loyal, hardworking people who did not have to have the full range of general management skills because the boss made virtually all the decisions. The subordinates' roles were primarily to implement the decisions. The founders used corporate-performance-based rewards to enhance the spirit of teamwork. They also expressed their appreciation for their employees by paying them an extra 1- or 2-months salary at end of year (the year-end bonus that is still traditional in Taiwan). As the businesses grew and, in some cases, the founders retired, some decentralization became imperative. Individual performance appraisals, which require different sets of management skills and procedures, became more important. The Taiwanese managers have less experience at dealing with such issues, but they are learning.

It is notable that the current T-Elec incentive system, which is highly objective, is relatively new.⁸ Prior to 1989, the company's performance evaluation was highly subjective. In 1989, it adopted its current, relatively objective system and squeezed most subjectivity out of its performance

evaluations. According to one of the consultants with whom we talked, T-Elec was one of the first Taiwanese firms to adopt such a "U.S.-model system. Like many Taiwanese firms, T-Elec did not adopt a formal evaluation/reward plan earlier because it did not feel the need for one: It was a relatively small, OEM-type supplier with little contact with world markets. But now that it is much larger and emphasizing exports, it is facing more competition and its managers judged that it needed a more formal evaluation and reward system. This observation by the consultant suggests an interesting question: Is T-Elec on the leading edge of future Taiwanese practice, or is it just a leading edge company trying an experiment which will fail? It is too early to judge the success of the new system because the managers still need training and experience with the system; for example, many do not yet know how to set personal targets well.

Change in Taiwan may actually be relatively slow for cultural reasons because as compared to their counterparts in the U.S., Chinese tend to be less confrontational. As the vice chairman of the Taiwanese electronics firm we studied said, "A good performer in Taiwan will not stand up and say, 'I am good. I deserve the spoils.'

3. Senior manager beliefs about the stock market. We found that most Taiwanese managers do not pay much attention to short-term stock performance. This is partly because the stock of many Taiwanese firms, even the large ones such as T-Chem, is held in large proportion by a family group. But is also due to a belief that the stock market is not greatly concerned with short-term financial reports. For example, the president of the other electronics firm we visited in Taiwan (not T-Elec) said:

The stock market does not respond to short-term earnings swings. It is not mature. People buy a stock based on the capital the firm has, not what it earns. Stockholders are not pressing to replace the president when the stock market is down.

So, unlike the U.S. firms, the managers of the Taiwanese firms express no desire to get more stock in

the hands of operating managers, and they do not inclined to use stock-based reward instruments such as restricted stock or stock options. This U.S. vs. Taiwanese difference can be labeled a national cultural difference, but it does not seem to correlate with any of the cultural dimensions we identified at the start of our study.

4. Type of business (market focus). Until 5-8 years ago, most Taiwanese companies sold almost exclusively to OEMs. They produced good quality products but had a stable customer base, so they had little need for interaction with the outside world. Most managers, including profit center managers could properly be buffered from the environment and held accountable primarily for production quality and costs, not for profit. T-Chem's still operates in this way. But as many Taiwanese firms have moved into direct sales to consumers, distributors, and retailers, they have faced a greater need for sales efforts and market planning, and this creates a demand for profit center managers to bear at least some of the business risk.

5. Labor force mobility. U.S. has a mobile labor force which does not exist in Taiwan. For example, without exception profit center managers in T-Chem are career employees with over 20-years experience within company. This factor undoubtedly lessens the need for the Taiwanese firms to implement long-term incentive plans because, as Merchant (1989) concluded, the primary purpose of these plans is employee retention, not motivation.

6. Company growth patterns. As compared to Taiwanese firms, U.S. firms more likely to grow by acquisition. When they do so, they are likely to have to use, at least for a period of time, a multitude of incentive plans, some designed only to govern the employees in the acquired companies. US-Chem is an example of a firm that has multiple plans in use. (Only the plan used in the chemical part of the business was described in this paper.) But T-Chem, which is nearly as large as US-Chem

has a uniform set of incentive plans for all managers.

Limitations

A number of limitations in our study need to be recognized. First and foremost is our small sample size. Our field study approach necessitated a focus on a small number of firms, but it also reduced confidence that our sample firms were representative of general practice. We also faced data accessibility limitations, especially within the Taiwanese firms. We were the first academics allowed into these firms to conduct such a study, and the firms' managers were understandably quite cautious about the process. This caution changed and limited what we could do. For example, many interviews of the interviews were conducted in group, rather than individual, settings, limiting our opportunities to verify ("triangulate") the responses. And the Taiwanese firms were not as free with data as are some U.S. firms. We were unable to obtain historical distributions of performance ratings and rewards for either firm's set of profit center managers.

Another factor complicating this study is the intermingling of cultures; not all Taiwanese firms' practices reflect the Chinese culture. Many of them may reflect a Japanese style of management used because the founder was influenced by the Japanese either through education or through contact during the period of Japanese occupation of Taiwan. Taiwanese managers who are in their 50s or older grew up during the period of occupation; most speak Japanese; and they are sympathetic to the Japanese style of management which is highly participative, emphasizing teamwork and personal relations. In retrospect, choosing Taiwan to understand the effects of Chinese culture perhaps was not the best choice. Or perhaps we should have chosen to gather data about the cultural dimensions from the key incentive-system decision makers in the Taiwanese firms, rather than relying on Hofstede's striking data.

These limitations notwithstanding, we believe we have shown support for some predicted culture-based differences between Taiwanese and U.S. firms' approaches to evaluating/rewarding profit center managers. But perhaps more importantly, we have provided some means for enriching the state-of-the-art theory explaining why management practices vary between U.S. and Taiwanese firms. We have identified areas where cultural explanations seem not to be particularly important and suggested other variables that may be more important. This knowledge should be important in influencing the design of future studies on this topic as researchers who want to explain a significant proportion of the variance in observed practice will want to measure, or otherwise control for, variables such as education and experience of senior managers, company stage of economic development, senior managers' beliefs about stock markets, extent of market focus, and company growth patterns.

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Table 1
Size of Annual Bonus Awards

Size of annual bonus awards (% of base salary)	U.S.-Chem	T-Chem	U.S.-Elec	T-Elec
- target	35%	100+%	25%	none specified
- maximum possible	unlimited	unlimited	67.5%	71%

Table 2
Translation of Performance into Points in T-Elec's Entity Measurement System

Points	Revenue			Profit Before Tax				Quality Management ¹
	% budg.	% growth	% new products	% budg.	% growth	profit per person (% budget)	ROA (%)	
100	130	30	50	160	60	160	160	
95	125	25	45	150	50	150	150	
90	120	20	40	140	40	140	140	
85	115	15	35	130	30	130	130	
80	110	10	30	120	20	120	120	
75	105	5	25	110	10	110	110	
70	100	0	20	100	0	100	100	
65	95	-5	17.5	90	-10	90	90	
60	90	-10	15	80	-20	80	80	
55	85	-15	12.5	70	-30	70	70	
50	80	-20	10	60	-40	60	60	
45	75	-25	7.5	50	-50	50	50	
40	70	-30	5	40	-60	40	40	

¹ Tailored to the profit center.

Table 3
Weightings of Performance Measures in T-Elec's Entity Measurement System

Division	A	B	C	D
Revenue	.3	.5	.5	.4
Profit before tax	.3	.5	.3	.4
Return on assets	.2		.2	.2
Quality management	.2			

NOTES

1. We are not aware of any comparable surveys of Chinese management practices, but our observations suggest that the situational forces causing managers to decentralize and use multiple profit centers are universal.
2. Field research methods have many names, including case, qualitative, and ethnographic methods.
3. In Merchant's study, US-Chem was called "Corporation E--Diversified Chemicals." US-Elec was called "Corporation M--Consumer Durables."
4. In all cases, the Taiwanese profit center managers were male.
5. These two firms are The Wyatt Company and Hay Management Consultants. It is not an accident that both consulting firms are U.S.-based. The compensation consulting industry is new to Taiwan (Hay came first to Taiwan, but only in 1988; Wyatt came in 1989). No local firms yet exist, and U.S. firms dominate the industry. But the U.S. firms largely employ Taiwanese consultants who receive some training in the U.S., and they tailor their solutions to the needs of the firms in Taiwan.
6. At the time of Merchant's (1989) study, U.S.-Chem provided its bonus awards 2/3 in cash and 1/3 in stock, but the company has subsequently changed its program to offer the bonuses solely in cash.
7. This happened twice in 1991.
8. T-Chem's incentive plan has been in place for many years. The company developed its plan relatively early because it has long had a significant international presence, including in the U.S, and it adopted some international practices. Its incentive plan is used through the world.