

# Convergence of Attitudes in Different Cultures Towards the Budgeting Process

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*Challenges in international businesses compel managers to adopt appropriate practices for the survival of their corporations. Although national culture has formed the backbone of management practices, cultural diversity has taken a backseat to managers' ambitions to advance within their organizations. Recent studies have seen convergence in business approach, organization design, and management norms. This empirical study focuses on the building of budgetary slack during the budget setting process to discern differences among approaches adopted by managers from different cultures. It is proposed that despite cultural differences, management practices tend to converge.*

This paper presents an empirical perspective on the concept of convergence of business practices between different cultures in the period from 1993 to 2003. In particular, a comparison between the business practices of US and Japanese companies is performed. During this ten-year period, Japan remained one of the top five trading partners of the US. In addition, Japanese investments in the US grew, presenting them with the prospect to evaluate the suitability of their management practices on foreign soil. With commercial linkages, there were plenty of opportunities for the different management techniques to interact and for one country to learn from the other. Floyd

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(1999, p. 630) has suggested, “With cross national investment and economic development in the east, management practices tend to converge”. In a review of Japanese managers, Mizuno (2002) cited globalization and information technology as causes for convergence. He also indicated that the Japanese management system does not function well under a turbulent and low growth economy. This situation existed for the period under study so it would be reasonable to suggest that the Japanese would likely embrace Western management practices. Bray and Lansbury (2000) found convergence in employment relations in very different national contexts. It should be expected that the globalization of contemporary businesses would lead to the cross-influence of business practices between the cultures. Since the US is the dominant party in worldwide commerce, this study attempts to measure the influence of US practices on Japanese businesses. In other words, I would like to determine whether or not there is a convergence of Japanese business practices towards those practiced in the US. Pearson and Entekin (1998) have indicated that some workplace behaviors have converged—from east to west.

For this study, convergence is viewed through the budget setting process. Cultural differences promote culturally specific ways of working, even within the same multinational organization (Adler, 1983; Laurent, 1983; Schneider, 1989). Therefore, one may see how the attitude towards the budget setting process would differ between culturally different societies. The propensity of management personnel to create budgetary slack was used to measure cultural diversity. Budgetary slack refers to an amount designated in the budget, during the budget-setting process, that may be generally believed to be unnecessary but is nonetheless included for the sole purpose of having a buffer to insure that the budget is easily achieved. It has been suggested that managers try to influence the budget-setting process to obtain such budgetary slack (Williamson, 1964). Schiff and Lewin (1970) mentioned two common forms of budgetary slack: overstated costs and understated revenues.

Creating budgetary slack would most likely have a negative impact on a company because of the potential distortion in resource allocation and wasted resources it may generate. In order for a company to avoid this phenomenon, managers have to be motivated to perform their best for the company. Accordingly, it might be advisable to use different incentives—both monetary and non-monetary—to inspire the managers.

Hofstede's (1983) 11-year study on culture suggested that the diversity of approaches in national and even regional cultures affect performance in management. Cultural differences have been cited as the main factor in various case studies. Franke et al. (1991), using Hofstede's four dimensions of national culture, attributed culture as the root of economic performance. I believe national cultures, or differences in nationality may play an important role in the applicability of agency theory, as well as in concepts such as budgetary slack and truth inducing schemes (Chow et al., 1988). Hofstede (1967, p. 280) suggested “the most dangerous generalization is from Western to Eastern culture (or vice versa) and that the game of budget control is a Western game.” This suggests that Eastern culture is less likely to view the function of budgeting from the Western perspective. The attitudes towards budget in general and budgetary slack in particular are expected to differ. There were suggestions that nationality is not a factor and has little impact on the propensity to create budgetary slack. Sethi et, al. (1984)

argued that corporations must function within the framework of the sociopolitical system of the society and that their effectiveness and economic strategies are intricately linked with the corresponding value systems and social norms. Therefore, this study will focus on the impact of national and social attitudes on creating budgetary slack.

The budget seems to form the backbone *modus operandi* of Western business enterprises. Drawing from the Tayloristic model and the emphasis on authority and accountability, the budget is somewhat modified to embrace the twin concepts of planning and control. Although it is supposed to represent the firms' plans, the budget is generally viewed as synonymous with control (Schiff & Lewin, 1970). The budget is also a vehicle for performance measurement and evaluation, and it is frequently related to rewards and remunerations; It permeates the interests of the entire workforce. From the top, the budget is used to monitor and control performance and from the bottom it is used as a tool for self-preservation, bargaining, performance evaluation (Demski et al., 1978), and gaining recognition (Covaleski et al., 1983).

Hofstede (1967) argued that budgeting is a game; Covaleski et al. (1986) talked about the gamesmanship of budgeting and the role it plays in politics. It follows, therefore, that the attitude towards budgeting and the building of budgetary slack becomes part and parcel of the working environment. These opinions of budget reflect the confrontational nature of the relationships between management and employees. This view is supported by a society that preaches individualism, as proclaimed by Adam Smith (1991, p. 241) who said, "Every man for himself," and by Schiff and Lewin (1970, p. 261) who stated that "personal goals come before organization goals," and by Sethi et al. (1984, p. 127) who indicated that "the hallmark of the employee's compensation system is based on individual merit and performance." In such an environment of short-term objectives, it is not surprising that the tendency to build budgetary slack for self-preservation is prevalent (Onsi, 1973).

The Eastern perspective focuses more on collectivism, in which the goal of society comes before the individual. The role of an individual in such a society is appropriately expressed in a Chinese adage, loosely translated as: "Without the country, there is no home and without a home, who am I?" As societal interests prevail over those of the individual, the responsibility and accountability of the individual shift to the group and thus, the creation of budgetary slack for self-preservation becomes secondary. One example is the Japanese corporation, which is built on a collective basis, especially with regard to its personnel management programs and reward systems (Takayanagi, 1989). The importance of the individual is not measured by his or her performance or by the attainment of the budget, but rather by seniority and experience on which a strong emphasis is placed. Youth often creates a barrier to senior positions simply because age becomes the delimiting factor. Promotions and rewards are tied to a lifelong employment system and as with the strategies of Japanese corporations, the outlook is long-term. Therefore, the budget is not seen as very useful for performance evaluation and is not tied to remuneration.

Like its Western counterpart, the Eastern budget is also viewed as having two main functions of planning and control. Unlike the West, however, the Japanese are more attuned to planning than they are to control. Their reasoning is that cost reduction is most effective when performed at the planning stage. Once the design is completed, little

can be done during the production stage. Any budgetary slack that may have been incorporated in the planning stage is applied during the production stage. Since the most the budget can do is to serve as a monitoring device, the role of budgetary slack loses its significance. Therefore, as argued by Sakurai and Huang (1989), the budget, as a form of control, is losing its importance in the Japanese business world. In an empirical study by Yoshikawa (1989), only 13.5% of the 146 companies surveyed listed cost accounting as a business planning and control instrument.

### Hypothesis Development

Although there are many factors that could affect the propensity to create budgetary slack, three are considered in this study. These three factors have been chosen because they are intricately linked with national cultures. They are delineated below, with the different perspectives from the West and the East shown in parentheses.

- I. General attitude towards the budget (Is it/As a bargaining tool or an instrument to improve production?)
- II. Active budgetary participation (Is it/As an opportunity for self fulfillment or a societal expectation?), and
- III. Performance evaluation (Is it/As a reward system or a system based on age, seniority, lifetime employment, and being a team player?).

These three factors are likely to interact and affect the propensity to create budgetary slack (Merchant, 1985; Dunk, 1993). Nationality and social differences will differentiate such tendencies.

#### *Budgetary Slack*

Simply stated, slack is an amount in addition to that which is required; or it is the amount of effort less than one's capability. The terms "slack" or "budgetary slack" are used interchangeably throughout this paper. According to Cyert et al. (1963, p. 36), it is "the total resources available to a firm less the total necessary to maintain the organization coalition." They further suggested that the propensity to create slack is a general managerial trait that is consistent with agency theorists. Schiff and Lewin (1970) estimated that 20 to 25% of a division's operating expenses could be defined as slack. Onsi (1973) found that 80% of the managers interviewed explicitly stated that they bargained for slack. This propensity to create slack is further confirmed in an empirical study by Merchant (1985). Dunk (1993), furthered research in this field and stated that slack is contingent on participation, information asymmetry, and budget emphasis. When the budget is treated with importance information is open and management is involved in the setting of the budget; then slack is found to be low.

From the Japanese perspective, Sakurai (1989) suggested that the building of budgetary slack is dependent on organizational structure. He cited two factors that contribute to the long-term focus of Japanese companies: the lifetime employment system and the debt oriented capital structure—both emphasizing long-term perspectives. Without placing pressure on managers to achieve short term profits, less emphasis is placed on meeting budgeting criteria, and thus, the need to build in budgetary slack is reduced.

### ***Budget and General Attitude towards the Budget***

Typically, subordinates possess better local information than their superiors. In order to incorporate the preferred information to produce a more accurate budget, subordinates are encouraged to participate in the budget setting process. Participative budgets are said to produce optimal coordination mechanisms with subordinates' private information (Kanodia, 1993). Dunk and Perera (1997) in their field study, cited managers reporting the level of slack diminishing with increased frequency of participation. The level of information sharing depends on the attitude of the subordinates toward the budget. If the budget serves as the main criterion for performance evaluation (Schiff & Lewin, 1970) and is central to the motivation and control of individual achievement (Young, 1988), then the attitude towards the budget would be considered high. With the budget treated as a yardstick for performance evaluation, an individual's attitude to it will be likely to have a high correlation with the incorporation of budgetary slack. The budget will be viewed more as an opportunity for compromise achieved by creating budgetary slack, rather than as a device for enhancing productivity.

In the area of management of production technology, it has been suggested that unlike the British, the Japanese use the budget merely as a form of documentation rather than as an influence on expenditure. It also stated that the high degree of personal motivation of the Japanese allows for the absence of strong control—employees are expected to perform their best at all times. Monden (1989) cited a case study of a typical Japanese company (Matsushita Electric Industrial, Ltd.) where the budget is considered a subsystem of the overall planning system. This is consistent with Flamholtz's (1983) conclusion that neither a budgeting system, nor an accounting system, could be viewed as a control system per se. In this case, attitudes towards the budget will have little or no correlation with budgetary slack.

### ***Budget and Participation***

In general, budgetary participation is considered to be a management strategy used to reduce the effects of information asymmetry. This is achieved by incorporating the knowledge of employees into budget plans. It is also anticipated that with greater involvement, workers will become more motivated and will consequently improve performance. Waller (1988) indicated that communication of that information to their superiors would improve the coordination and evaluation of organization activities; and Murray (1990) suggested that, as a consequence, the budget would be more accurate. Dunk and Perera (1997) interviewed managers and found that increased participation implied accountability for the budget. In addition, employees who have participated have felt that their extra effort deserves some form of compensation. Furthermore, they have the opportunity to incorporate slack into the budget in order to enhance their performance evaluation. Therefore, participation in the setting of the budget is likely to have a high correlation with budgetary slack.

In contrast, Norwegian culture has viewed participation as more of a norm than of a concession (Brownell, 1982). Similarly, the Israeli organizations that have been structured around the kibbutz model have also accepted such participation as a norm. The same can be said for employees in Japanese companies who adhere to societal

expectations and participate actively in order to be accepted into the group to create “Uchi no kaisha the fostering of feelings of belonging, loyalty, and emotional warmth” (Hammond & Preston, 1992, p. 798). It is therefore reasonable to expect the Japanese to not use participation as an opportunity to incorporate budgetary slack. For this reason, there should be little or no correlation between participation and budgetary slack.

### ***Budget and Performance Evaluation***

Managerial compensation is frequently tied to performance relative to a certain yardstick (or budget). The basis of the standard is bound to contain slack (Chow et al., 1994; Schiff & Lewin, 1970). Brownell and McInnes (1986) suggested that subordinates build in slack when formal rewards are linked to budget achievement. A visit to the Lexis-Nexis electronic database reveals an abundance of studies dealing with budgets and budgetary reward systems. Topics like sales incentives, productivities, and executive compensation were variously discussed. Common to all these papers was the budget, the benchmark for evaluation and the application of rewards. The budget is used for assessing the attainment of targets, performance evaluation, and remuneration, among other things. Therefore, budget setting and slack building are likely to be closely associated with performance.

As stated above, the Japanese rely heavily on seniority for promotions. Such a lack of reliance on the budget for the reward system can be seen in Takayanagi's (1989) study in which 80.6% of employees' compensations were determined by both job classification and seniority. Non-monetary incentives are considered to be more important because they promote the social status of the individual. Since the budget is no longer the yardstick for performance evaluation, the building of slack would be unnecessary. Therefore, a close correlation between performance evaluation and budgetary slack would not be expected.

Based on the above arguments, one may come to see how the three factors may be hypothesized to impact budgetary slack when considered together (Dunk, 1993). The three factors studied in this paper, with their low and high levels, are as follows:

Factor  $X_1$  - General Attitude towards the Budget (Information Asymmetry)

Low - employees do not have much knowledge to share in the budget process

High - employees do have significant knowledge to impart in the process

Factor  $X_2$  - Participation

Low - employees participate little in the budget setting process

High - employees are major participants in the budget setting process

Factor  $X_3$  - Performance Evaluation

Low - budget is not used heavily in performance evaluation

High - budget is used heavily in performance evaluation

In essence, the previous work discussion suggests that, for conditions to favor the propensity to build up budgetary slack, factor  $X_1$  would be at a high level, factor  $X_2$  would be at a high level, and factor  $X_3$  would be at a high level. The effects, however,

are not additive. The one setting of ( $X1_{high}$ ,  $X2_{high}$ , and  $X3_{high}$ ) should result in a dramatically lower amount of slack than other combinations. That is, the contention is that “all three conditions” are needed for there to be a dramatic reduction in what is seemingly inevitable—a large amount of budgetary slack.

An elementary analysis of this situation suggests that an analysis of the effect of these three factors should result in a significantly negative 3-way interaction effect (as well as negative main effects, and negative 2-way interactions). Accordingly, the first hypothesis is as follows (for 1993 - i.e., the “past data.”):

*Hypothesis 1: When there is high information asymmetry about the budget and performance evaluation in a budget setting, environment is important, and participation is high; Western managers are likely to reduce the propensity to build in budgetary slack, whereas Eastern managers would draw no correlation from these factors.*

Therefore, in relating the amount of budgetary slack to the three factors, including the three main effects, the three 2-way interactions and the one 3-way interaction term:

- a) For Westerners, the 3-way interaction should be negative and significant, indicating a significant 3-way interaction above and beyond the other six effects.
- b) With respect to Eastern managers, no relationship is expected between budgetary slack and any of the three factors.

The second part of the study revisits the Japanese business environment ten years later. During this period (1993 to 2003) the Japanese economy was flailing. Mizuno (2002) suggests that Japanese management practices do not fair well in a poor and low growth economy. Therefore, there was a likelihood that they would embrace Western management practices. In addition, globalization and improved information technology tend to cause management practices to converge. A number of researchers (Kerr et al. 1964; Dunphy 1987; Sparrow & Wu, 1994) have proposed that with industrialization and economic development, individuals will adopt common attitudes and behaviors despite their cultural differences. Fish (1999) indicated that an organization should form a certain mindset on corporate values. He has noticed convergence with regards to management issues, rather than with individuals in specific situations. Cultural diversity has been diminished with the trend of companies in Japan moving towards being financed by equity. Regular shareholders are less patient than the large banks that were traditionally financing the Japanese enterprises. Therefore, it is understandable that Japanese management is more concerned about large budget deviations. This kind of “safety first” risk aversion can explain the convergence of business practices in Japan and the U.S. This issue was discussed and analyzed by Hagigi, et al. (1990) in the context of cost uncertainty and budget overspending. Lastly, cultural diversity becomes less important to managers who are ambitious to get ahead in an organization. Adler (1997) and Vertinsky et al. (1990) have observed that organizations are converging in their approach to business activity, organizational designs, and management norms. Given these factors, the propensity to create budgetary slack from the Japanese perspective will likely be similar to that of the West. Hence the second hypothesis is as follows:

*Hypothesis 2: Convergence towards Western management practices, as measured by the propensity to create budgetary slack, is anticipated in a floundering Japanese economy.*

The sample taken from Japan in 2003 is expected to yield similar results as those generated from the sample taken from the US in 1993. Thus, the 3-way interaction term is expected to be negative, indicating that despite cultural differences, management practices have converged. Some may question the validity of comparing the 2003 data (Japan) against 1993 data (US); to address this, a new survey was taken in the US (54 MBA students) in 2006. Despite evidence of US companies adopting Japanese management techniques (e.g., just-in-time systems by the auto industry) the practices of management essentially remained Western-styled and very much from the individualistic perspective. Therefore, it is not expected that the 2006 data will produce drastically different results from those taken in 1993.

### Data For The Study

The samples were obtained through a survey that employed a 17-question instrument (see Appendix A). Respondents were asked to rank on a Likert scale (from 1 to 7) the degree of importance of each question. Characteristics of the respondents are shown in Appendix B. The questionnaire used tested instruments from studies by Onsi (1973), Milani (1975), and Dunk (1993). The results were then grouped into four factors that were to be tested:

- 1) Attitude towards Budgeting
- 2) Budgetary Participation
- 3) Performance Evaluation, and
- 4) Budgetary Slack.

Tan (2002) observed that the subjective nature of this type of research presents a formidable challenge in the collection of data. Although the instruments used are tested questions, the interpretation of them might differ between different cultures. A number of comments written on incomplete questionnaires such as “irrelevant” and “not applicable” attest to the problems regarding the interpretation of words or sentences. In order to control for this factor, the surveys were conducted on MBA students (with managerial experience) who were exposed to managerial accounting classes and where the concept of budget was discussed. The 1993 survey was conducted at Boston University (BU). Of the 123 questionnaires returned, 17 were deemed to be incomplete and discarded. The remaining surveys were divided into two groups: US (85) and Japan (21). The Japanese sample includes some Taiwanese and Koreans. A second sample of 16 students was taken at Sanyo Corporation in Kobe, Japan (where BU conducts another MBA program). The third survey was conducted 10 years later; also in Kobe, Japan. A total of 22 questionnaires were returned with 3 incomplete. The fourth and final survey was conducted in 2006 at BU. This survey yielded 43 usable responses. Statistics for these samples are shown in Table 1.

**Table 1:** *Simple Statistics of the Factors*

		<b>Information Asymmetry</b>	<b>Performance Evaluation</b>	<b>Budget Participation</b>	<b>Budgetary Slack</b>
US 1993 (n=85)	mean	7.2706	12.6941	20.3412	15.6353
	std dev	2.5279	2.9601	2.9863	3.6931
	range	2 - 14	6 - 20	13 - 28	7 - 27
Jpn in US (n=21)	mean	8.0952	21.7619	13.2857	16.0476
	std dev	1.8413	3.0316	2.8661	2.9065
	range	4 - 11	17 - 29	9 - 19	11 - 23
Jpn in Kobe (n=16)	mean	10.0000	27.8125	13.9375	16.0625
	std dev	1.7512	4.9155	2.3796	2.7921
	range	7 - 13	17 - 36	11 - 17	10 - 20
Jpn 2003 (n=19)	mean	9.4737	21.0526	13.1579	14.8947
	std dev	2.3657	4.2619	3.8480	2.3780
	range	6 - 13	15 - 34	3 - 19	10 - 20
US 2006 (n=54)	mean	10.2963	13.9444	20.7963	14.7963
	std dev	1.2910	3.3905	3.1275	3.0347
	range	8 - 12	9 - 19	15 - 27	10 - 22
Theoretical Range		2 - 14	3 - 21	0 - 28	4 - 28

### Statistical Analysis

The following multiple regression model was adopted to test the hypotheses:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_1 X_2 + \beta_5 X_1 X_3 + \beta_6 X_2 X_3 + \beta_7 X_1 X_2 X_3 + \varepsilon$$

Where Y = budgetary slack  
 $X_1$  = general attitude towards the budget  
 $X_2$  = budgetary participation, and  
 $X_3$  = performance evaluation.

The values of  $X_1$ ,  $X_2$ , and  $X_3$  are numerals whose values depend on the sum of the responses (in Likert scale: 1 - 7) to the designated questions. For example, as  $X_1$  is measured by two questions, its theoretical value will range from 2 to 14 (see table 1). The coefficient ( $\beta_7$ ) of the 3-way interaction of the factors  $X_1$ ,  $X_2$ , and  $X_3$  is expected to be significant and negative for the US sample from 1993, and not significant for the Japanese sample from 1993. However, in testing hypothesis 2, using the 2003 sample from Japan, the results are expected to be similar to those obtained from the 1993 US

sample. This would suggest that the attitude of the Japanese managers in 2003 has converged to those of US managers in 1993. Results from the 2006 US data are expected largely to emulate the data from the 1993 US sample.

## Results

Multiple regressions performed on the 1993 US sample are shown in Table 2a. The interaction coefficient,  $\beta_7$ , is negative (-0.0040), as expected, and significant ( $p < 0.0001$ ), as postulated. This indicates that “extra”- lower budgetary slack can be expected with the combination of a high level of information asymmetry, a high level of budget bound performance evaluation, and a higher level of participation. To support the main contention (i.e., that the one combination alluded to above yields significantly less slack than the other seven combinations), the three main effects and three 2-way interaction effects should also be negative. The 2-way interaction effects were, indeed, significantly negative, and are not reported in the results. However, the main effect results are reported, since the information asymmetry main effect coefficient, while directionally correct, was not significant ( $p > .20$ ).

**Table 2a: Result of Regression  
US Data 1993**

	<b>Coefft.</b>	<b>Value</b>	<b>Std. Error</b>	<b>t-Stats</b>	<b>p-value</b>
Intercept	$\beta_0$	15.0031	0.3640	41.2213	<0.0001
Info Asymmetry (X1)	$\beta_1$	-0.0063	0.0049	-1.2714	0.2074
Participation (X2)	$\beta_2$	-0.7459	0.0198	-37.6414	<0.0001
Perf. Evaluation (X3)	$\beta_3$	-1.2237	0.0429	-28.4946	<0.0001
3-way Interaction	$\beta_7$	-0.0040	0.0001	-39.1985	<0.0001

Dependent Variable: Budgetary Slack (Y)

R-square = 0.280; n = 85

**Table 2b: Result of Regression  
Japanese in US 1993**

	<b>Coefft.</b>	<b>Value</b>	<b>Std. Error</b>	<b>t-Stats</b>	<b>p-value</b>
Intercept	$\beta_0$	-7.7595	43.0753	-0.1801	0.8610
Info Asymmetry (X1)	$\beta_1$	2.7611	3.1387	0.8797	0.4019
Participation (X2)	$\beta_2$	-0.2395	1.0903	-0.2197	0.8310
Perf. Evaluation (X3)	$\beta_3$	-3.6589	4.5534	0.8036	0.4424
3-way Interaction	$\beta_7$	0.0069	0.0113	0.6080	0.5582

Dependent Variable: Budgetary Slack (Y)

R-square = 0.173; n = 16

The results of the regressions on 1993 Japanese data taken at BU are shown in Table 2b. The results for those taken in Kobe in 1993 are similar in that they are not significant and thus, are not shown here. The 3-way interaction coefficients for both cases are not significant (p-values of 0.55 and 0.56), suggesting that the Japanese managers did not view the incorporation of budgetary slack as an important element during the budgeting process. Indeed, the main effects and 2-way interactions were also not significant. To improve the robustness of the regression, the data from the US and Japan were combined, and the same regression equation was run. Once again, the result was the same as when the data was treated separately in that  $\beta_7$  was not significant with p-value = 0.70. To further verify that the regressions are indeed dissimilar, an F-test is conducted by comparing the full vs. the reduced regressions (Neter & Wasserman, 1974, pp. 87-89). These calculations are shown in Appendix C (upper portion).

The data from the 2003 survey (taken in Kobe, Japan) was tested with the same regression formula and the results are shown in Table 3. The coefficient of the 3-way interaction ( $\beta_7$ ) is negative and highly significant (p<0.0001), just as for the case of respondents in the US Table 2a).

**Table 3: Result of Regression**  
Japan Data 2003

	Coefft.	Value	Std. Error	t-Stats	p-value
Intercept	$\beta_0$	14.3841	0.3443	41.7769	<0.0001
Info Asymmetry (X1)	$\beta_1$	0.0038	0.0069	0.5486	0.5942
Participation (X2)	$\beta_2$	-0.6976	0.0242	-28.7945	<0.0001
Perf. Evaluation (X3)	$\beta_3$	-0.9963	0.0765	-13.0249	<0.0001
3-way Interaction	$\beta_7$	-0.0033	0.0002	-13.7958	<0.0001

Dependent Variable: Budgetary Slack (Y)

R-square = 0.213; n = 19

The results indicate similarity in management behaviors between the US and Japan. This supports the second hypothesis since there is evidence of convergence of the Japanese management practices toward Western practices. The evidence is further supported by the 2006 US data (Table 4). To further verify that the regressions are indeed similar, an F-test was conducted comparing the full vs. the reduced regressions (Neter & Wasserman, 1974, pp.87-89). These calculations are shown in Appendix C (lower portion).

**Table 4: Result of Regression**  
*US Data 2006*

	<b>Coefft.</b>	<b>Value</b>	<b>Std. Error</b>	<b>t-Stats</b>	<b>p-value</b>
Intercept	$\beta_0$	128.048	64.433	1.9870	0.0550
Info Asymmetry (X1)	$\beta_1$	-9.9630	6.3810	-1.5610	0.1270
Participation (X2)	$\beta_2$	-6.3700	3.0050	-2.1200	0.0410
Perf. Evaluation (X3)	$\beta_3$	-8.4440	4.6960	-1.7980	0.0810
3-way Interaction	$\beta_7$	-0.0380	0.0210	-1.8380	0.0750

Dependent Variable: Budgetary Slack (Y)

R-square = 0.328; n = 43

Regression results show an F-ratio of 2.444 at a 3.8% significance level. The 3-way interaction is still negative but the level of significance is slightly lower with p-value = 7.5%. This suggests that in the last decade attitudes towards budgetary process have not changed significantly.

### Conclusion

This study shows that a decade ago, the management practices of Japan and the US, represented by the tendency to build in budgetary slack during the budget setting process, were different. The US data support Dunk's (1993) suggestion that budgetary slack is expected to be lower especially when there is participation in the budget setting process. The results also support the argument that cultural diversity induces different management practices. With the passage of time, the advancement in information technology, and the expansion of global business, there seems to be some transfer of business know-how across countries—despite cultural diversities. During the decade of interest, Japanese managers have seemed to embrace Western business practices, especially with the decline of the Japanese economy and the untenable concept of life-long employment. As a result, data taken in the later phase of the study seems to support the idea that management practices have converged. The results of the regressions on data taken in Japan in 2003 seem to parallel those taken in the US in 1993. Another sample taken in the US in 2006 appears to be similar to the 1993 data, indicating stability in management practices in the West. It seems that cultural diversity has taken a backseat to managers' ambitions to get ahead (Fish, 1999). The study also supports the proposal that organizations are converging in their approach to business activity, organizational designs, and management norms (Adler, 1997; and Vertinsky et al., 1990). The cultural diversity has been diminished recently, as reflected by companies in Japan that are increasingly financed by equity. Regular shareholders are less patient than the large banks that traditionally financed Japanese enterprises. Therefore, it is understandable that Japanese management is more concerned about large budget deviations. This kind of "safety first" risk aversion can explain the convergence of

business practices in Japan and the U.S. This issue was discussed and analyzed by Hagigi, et al., (1990) in the context of cost uncertainty and budget overspending.

By drawing the above conclusion, it is acknowledged that there are some weaknesses in the study. First of all, the sample sizes from Japan are somewhat small. It would be interesting to expand the study to more countries, especially China, Korea, and Taiwan which share a similar culture. Expanding the study would establish a benchmark to be revisited in years to come. Of greatest interest would be China, whose economic growth is outpacing the rest of the world, leading researchers to examine what sort of management practices they are inculcating: whether their practices will be a model for others to imitate, or will they eventually change to the Western model that we are more accustomed to?

The small sample size (especially from Japan) might provoke views regarding the relevancy of the results. However, the significant results are not really vulnerable to small samples sizes. When samples are small, a bigger difference is needed to establish a significant result. Small samples might hurt when the results are insignificant, because it brings into question the power of the test. In this study, the results were so insignificant (with  $p$ -values  $> 0.5$ ); the low power issues should not be pertinent to the results. Another weakness is the instruments used; they were dated and the interpretation of the questions from different cultures may not be the same. Tan (2002) observed that the subjective nature of this type of research presents a formidable challenge to the collection of data. Dunk and Perera (1997, p. 661) cited "personal factors" influencing managers' behavior and "what they can do is not necessarily what they actually do."

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5. My influence on setting the current budget in my area of responsibility was very important.

1	2	3	4	5	6	7	
Disagree							Agree

6. Standards set in the budget induce high productivity in my area of responsibility.

1	2	3	4	5	6	7	
Disagree							Agree

7. My supervisor seeks my requests, opinions, and/or suggestions when the budget is being set.

1	2	3	4	5	6	7	
Disagree							Agree

8. The ability of the supervisor to get things done through his/her subordinates is an important consideration when evaluating his/her management capability.

1	2	3	4	5	6	7	
Disagree							Agree

9. I have to carefully monitor costs in my area of responsibility because of budgetary constraints.

1	2	3	4	5	6	7	
Disagree							Agree

10. If I do not attain the budget, my supervisor gets upset.

1	2	3	4	5	6	7	
Disagree							Agree

11. Budgets for my area of responsibility are not particularly demanding.

1	2	3	4	5	6	7	
Disagree							Agree

12. I often state my request, opinions and/or suggestions about the budget to my supervisor without being asked.

1	2	3	4	5	6	7	
Disagree							Agree

13. How often are you involved in setting the budget?

1	2	3	4	5	6	7	
Never							Always

14. Monetary incentives are primarily tied to attaining the budget.

1	2	3	4	5	6	7	
Disagree							Agree

15. Targets incorporated in the budget are difficult to reach.

1	2	3	4	5	6	7	
Disagree							Agree

16. I frequently initiate budget-related discussions.

1	2	3	4	5	6	7	
Disagree							Agree

17. Budgetary targets have caused me to be particularly concerned with improving efficiency in my area of responsibility.

1	2	3	4	5	6	7	
Disagree							Agree

### Appendix B

#### Characteristics of the Respondents

The respondents from the US were made up of executive MBA students at Boston University. Those from Japan were taken from an MBA program run jointly by BU and Sanyo Industries in Kobe, Japan. These are not traditional MBA students in that they were mainly sponsored by their employers. They came to classes with many years of working experience. No detailed information of the respondents was solicited in the 1993 surveys, but they were not very different from the respondents of 2003 and 2006. Details of the latter surveys are tabulated below:

	<u>2003 Japan</u>	<u>2006 US</u>
Average age (years)	32.40	30.07
Working experience (years)	6.10	6.08
% involvement in budgets	42%	22%
<i>Employment</i>		
Services	30%	65%
Manufacturing	70%	26%
Non-Profit	0%	9%
<i>Racial Composition</i>		
Caucasian		63%
Japanese	75%	
Other Americans		37%
Asian	25%	

## Appendix C

### Testing for Similarity in the Regression Lines

Null hypothesis: The regression lines are similar.

The following are the regressions, the error sum of squares and their related degrees of freedom.

	<u>SSE</u>	<u>DF</u>
Regression line A – Japan 1993 [1]	65.950	9
Regression line B – Japan 2003 [2]	0.038	11
Regression line C – US 2006 [3]	200.656	35
Combination of A and C [4]	363.041	51
Combination of B and C [5]	269.386	54

#### Comparing Japan (1993) against US (2006)

$$F_{\text{calc}} = \frac{SSE(4) - [SSE(1) + SSE(3)]}{DF(4) - [DF(1) + DF(3)]} \div \frac{[SSE(1) + SSE(3)]}{DF(1) + DF(3)}$$

$$= \{363.041 - (65.950 + 200.656)\} / (51 - 9 - 35) \div \{(65.950 + 200.656) / (9 + 35)\}$$

$$= 2.2736$$

$$F_{\text{stats}} = \text{FINV}(0.05, 7, 44) = 2.2263 \quad \text{NB: FINV is Microsoft Excel F-table value.}$$

Since  $F_{\text{calc}} > F_{\text{stats}}$ , the null hypothesis is rejected (at  $p = 5\%$ ) and conclude that the regression lines are dissimilar. This is consistent with earlier conclusion that Japanese management practices relating to the budgeting process are different.

#### Comparing Japan (2003) against US (2006)

$$F_{\text{calc}} = \frac{SSE(5) - [SSE(2) + SSE(3)]}{DF(5) - [DF(2) + DF(3)]} \div \frac{[SSE(2) + SSE(3)]}{DF(2) + DF(3)}$$

$$= \{269.386 - (0.038 + 200.656)\} / (54 - 11 - 35) \div \{(0.038 + 200.656) / (11 + 35)\}$$

$$= 1.9861$$

$$F_{\text{stats}} = \text{FINV}(0.05, 7, 46) = 2.2164$$

Since  $F_{\text{calc}} > F_{\text{stats}}$ , the null hypothesis cannot be rejected (at  $p = 5\%$ ) and conclude that the regression lines are similar. This is consistent with earlier conclusion that Japanese management practices relating to the budgeting process have converged toward US practices.