

AN EXAMINATION OF COUNTRY AND CULTURE-BASED DIFFERENCES IN COMPENSATION PRACTICES

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Abstract. This study explores the relationship between country-based and culture-based differences in pay practices. Pay data from forty-one manufacturing industries in twenty-eight countries across five different culture clusters were examined. Although significant differences were found between countries in terms of pay level, the largest portion of the variance in the relationship between wages and benefits is due to cultural affiliation. The implications for cultural clustering theory and international pay decisionmaking are discussed.

As is consistently demonstrated by the concern in the popular literature with the interdependence of national economies and international trade, the global economy has become a business reality. Modern corporations are increasingly involved in multinational operations, not merely for the growth opportunities, but for simple survival. This increase in the number of multinational corporations encourages the consideration of compensation programs among a burgeoning variety of employee groups all over the world. The benefits of understanding international differences in pay practices are twofold: (1) employee expectations are better met, which can result in better pay equity perceptions, pay satisfaction, and a host of other work-related attitudes and actions, and (2) companies will be better able to optimize their compensation budget by focusing on compensation issues that are truly relevant to different workforces.

A review of the literature indicates that there is a dearth of both theory and empirical research on cross-national compensation practices [Adler 1983]. Although wage surveys of selected countries are often conducted by multinational firms, the only substantial information available is in the

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form of area studies, which take three distinct types: (1) studies produced by researchers within the country under observation (i.e., British researchers writing on British compensation: White [1985]; Bowey and Thorpe [1986]), (2) studies by foreigners observing the compensation practices of a country of interest (i.e., American workers studying Japanese compensation practices: Hashimoto & Raisian [1985]), and (3) compensation information contained within area studies that are focused on some other phenomena (Tung [1981]; Nelson & Reeder [1985]). (Ideally, a fourth type of international pay research should also be available: true cross-national research with compensation practices as the foci of interest.) These studies reveal a wide range of compensation practices in different countries within the same industries. To date, however, virtually no comparative cross-national academic research has focused on pay practices, nor on workers' attitudes toward their pay, and it is to this need that this study is addressed.

The purpose of this study is twofold: First, to determine if differences exist between cultures and countries in the way employees are compensated, and second, to determine if the cultural cluster model described by Ronen and Shenkar [1985] is predictive when applied to compensation practices. Determining if differences in pay policies are country-based or culture-based phenomena will provide insight into the generalizability of pay practices on a global basis. Further, this study will suggest applications to compensation practices of the Ronen and Shenkar [1985] model, which was designed to segment countries into culturally related groups for purposes of understanding work values and the relationship of culture to those values. A key assumption behind this model is that work attitude similarities transcend national boundaries and are more properly evaluated at the cultural level. Although the data set available for this cross-national comparison is somewhat rudimentary (in that it does not allow for substantial disaggregation of the pay data), this study is a first step in analyzing the differences in cross-cultural compensation practices.

LITERATURE REVIEW

Hartigan [1975] contended that clustering allows for a more thorough understanding of the macro-environmental factors that are associated with differences in actions and values, in this case international differences in pay practices and work values. Subtle differences that might go unnoticed at the country level become more apparent when it is shown that an entire region on the map may share some common characteristic [Kraut 1975; Ronen & Kraut 1977]. Hartigan [1975] also cited the utility of clustering, in that it allows for generalizations to be made about unstudied groups that would be considered a part of a particular cluster. Since compensation practices are strongly related to work values and to other macro-environmental phenomena, it would seem appropriate to consider culture as having a substantial impact upon compensation policy.

In a meta-analysis, Ronen and Shenkar [1985] created an empirically grouped culture cluster model that assigns countries to a "culture cluster," within which all countries have demonstrated a similar set of responses to attitudinal surveys. Ronen and Shenkar [1985] cite predictive potential, among other reasons, as one of the primary benefits of clustering. Hartigan [1975] hypothesized that prediction might take place in two ways: (1) if a group (country) is classified into a given cluster (cultural cluster), then information about behaviors of other members of that cluster would serve as predictors of expected behaviors of the classified group (country), and (2) new measures already shown to have cluster (cultural cluster) affinity would be predictive of the measures that would be expected of other members of a given group (i.e., research done in Germany would be predictive of Switzerland and Austria, the other members of its culture cluster). Hartigan's hypothesis is an especially valuable tool for cross-national compensation research, as it would allow for the development of more generalized knowledge about compensation practices from the somewhat limited body of research that is available. The applicability of culture as an influence on pay practices also moves compensation research to a higher, possibly more meaningful level of analysis (cf., Dansereau and Markham [1987]). Dansereau and Markham [1987] demonstrated that the relationships between organization variables are not necessarily apparent at certain levels of analysis, and thus aggregation of the data can yield considerable insight.

The application of cultural affiliation as an independent variable in cross-national management research has been criticized by some researchers. Negandhi [1975] suggested that organizational practices are actually functions of organizational size, market conditions, technology, and location, and are only marginally dependent upon cultural affiliation. Cheng [1987] doubted whether cultural affiliation has significant predictive utility in explaining macro-organizational phenomena, although he conceded that it may have greater utility in predicting micro-organizational phenomena. Child [1981] noted that the effects of culture are most evident at the interpersonal level, and that cultural effects are dissipated at the organizational level of analysis. Cheng [1987] also noted that although culture is an important aspect of national distinctiveness, it is only one of many differences between countries. Thus, these authors have cast doubt upon the influence that culture has upon management practices and employee attitudes toward pay. Unfortunately, data are not readily available about these differing attitudinal values specific to compensation practices, but data about specific pay practices are available. Labor costs in total are often determined by economic factors, cost of available labor, and the business necessity of selling competitively priced products. Value differences, however, are more likely to be manifested in the *form* of the compensation package, regardless of the amount of the pay. By way of background, compensation traditionally is divided into three components: (1) wages, the direct payment to the worker in exchange for competently performing assigned work, (2) incentives,

payments (including bonuses) made to the worker for high levels of individual or group performance, and (3) benefits, a combination of legally mandated costs (e.g., unemployment insurance) and other non-wage compensation (e.g., health insurance) that figure into the total cost of compensating a given employee. The sum of all of these parts represents total compensation cost. What is of interest is how these three parts are apportioned relative to each other across different cultures. The data examined here allow for the cross-cultural comparison of the relative proportion of wages, bonuses, and incentives to the combination of benefits and other legally required payments. Differences in whether compensation dollars are assigned to direct earnings or to other compensation reflect pay value differences between cultures. If employees work in a culture that places a high value on benefit payments, then those workers may well bring a different set of expectations to the job than workers from a culture where one is paid primarily for the work itself, with relatively low benefits. The differences in the proportion of wages to benefits may indicate a number of differences in employee attitudes toward pay. This ratio of other compensation costs to direct earnings provides a working measure of differences in compensation practices.

METHODOLOGY

Sample

The compensation data used in this study were derived from a compensation cost report prepared by the U.S. Department of Labor, Bureau of Labor Statistics, Office of Productivity and Technology [1986]. These data were collected from national earnings statistics, and were then adjusted to reflect hourly earnings in 1984 U.S. dollars. The report lists average hourly earnings (including average incentive and bonus pay) and other compensation costs (i.e., benefits, legally required employer contributions, etc.) for forty-one manufacturing industries in twenty-eight countries. Information on benefits and other legally required costs were derived from national sources, censuses from manufacturers, and from other reports on social security and fringe benefits systems.

When individual industry pay data were not available, the compensation report listed a single pay average for all industries in a country. These countries were excluded from our calculations. Furthermore, Brazil and Mexico were dropped from the analysis because each would be the only country reported in its cultural group. Industries are described in the data set by name and by the U.S. Standard Industrial Code that most closely describes the industry observed. The cluster assignments were taken from the groupings developed by Ronen and Shenkar [1985].

Dependent Variables

Wages: These represent the average hourly wages in U.S. dollars, paid to workers in a single industry type within a specific country. These wages

can be considered pay for the position or direct wages and an average of bonuses and other incentives paid to workers by industry.

Other Compensation: This measures the average total additional hourly costs of compensating a worker, in U.S. dollars, in a single industry within a single country. This variable should be considered the combination of employee benefits and other legally required payments in the employee's behalf.

Total Compensation: This is the average total hourly compensation cost in U.S. dollars for a worker in a single industry within a single country, and is calculated by adding "wages" and "other compensation."

The Ratio of Other Compensation to Wages: This is calculated as "other compensation" divided by "wages," and provides a percentage indicating the compensation pattern of an industry in a single country, with respect to "wages" and "other compensation" costs. The higher the ratio, the greater the percentage of total compensation costs go to something other than direct remuneration of workers for their labor.

Independent Variables

Industry: Industries are defined by the Standard Industrial Code, and they are comparable across countries. Forty-one manufacturing industries are identified in this data set.

Country: This term identifies an independent nation with a manufacturing sector. Twenty countries are used in this analysis.

Cultural Cluster: Cultural affiliations are based upon a construct developed by Ronen and Shenkar [1985] as shown in Figure 1. Countries were assigned to five different cultural groups, including Anglo, Oriental, Latin European, Nordic and Germanic.

Analysis

In order to determine if there are significant effects upon pay practices from culture-affiliation, a general linear models/analysis of variance (GLM/ANOVA) procedure was used. This procedure tests the effects of each of the independent variables on hourly wages, other compensation costs, and a ratio of those two variables. Specifically, culture was defined as a class variable in the GLM/ANOVA, with wage, other compensation, and compensation ratio as dependent variables. A Duncan's Multiple Range Test was then performed on the data to determine the number and location of significant effects. The data were then sorted by culture and country, and with each cluster Pearson correlations were calculated for the three dependent variables. This was done in order to identify relationships in pay differences other than the affiliation-related effects tested for by the GLM.

Because there is a large range of pay rates among the various countries and industries, it is important to insure that differences in the ratio of wages to benefits is not simply a function of wage level. To test for these effects,

FIGURE 1
Assignment of Countries to Cultures*

Anglo	Latin European
United States	Belgium
Canada	France
Australia	Greece
Ireland	Italy
United Kingdom	Netherlands
Oriental	Nordic
Hong Kong	Denmark
Japan	Finland
Korea	Sweden
Taiwan	
GERMANIC	
Germany	
Austria	
Switzerland	

*These countries were assigned to the above cultures based on Ronen & Shenkar [1985].

simple regression was used to test the effect of wage level on the compensation ratio across all countries, and to test for the effects of wage levels across countries, but within industries.

Further, to assess the effect that industrial type has upon the compensation ratio, a General Linear Models procedure was used to determine the effect of industry across cultural groups and within cultural groups.

RESULTS

Table 1 shows the descriptive data for the five cultures in this study. The number of industries within each culture is shown in the second column (labeled N, which is the number of data points), along with the mean, standard deviation, and range for wages, other compensation, and the ratio of the two. As can be seen in this table, there is considerable variation in compensation levels not only between cultures but within cultures. In 1984, the Oriental culture paid an average of \$2.73 an hour; the Anglo culture paid \$7.14. A similar range exists in terms of additional compensation and the ratio. Note that the cultures paying the highest level of additional compensation are not the same as the cultures paying the highest wages, which would seem to indicate that national levels of economic development, at least in terms of wage rates, do not necessarily drive these differences. This relationship is also true of the ratios.

Table 2 shows the results of the GLM/ANOVA procedure for each dependent variable (wage, other compensation, and ratio), using culture as the independent variable. ANOVA tables are listed for each dependent variable. Culture has a significant influence on wage, additional compensation, and ratio, and also explains a substantial amount of the variance across those factors ($R^2 = .40, .52$ and $.76$, respectively).

TABLE 1
Mean, Standard Deviations and Ranges by Cultures

Culture	N	Wages		Additional Comp		Ratio	
		Mean	Range	Mean	Range	Mean	Range
Anglo	133	7.14	2.65-15.92	2.41	1.38	.32	.065
Oriental	116	2.73	.76-9.13	.45	.52	.14	.10
Latin European	127	4.19	1.89-7.54	3.25	.96	.76	.10
Nordic	59	5.87	4.20-8.54	2.58	1.06	.45	.21
Germanic	63	5.41	2.42-9.31	3.36	1.09	.65	.22

The results of the Pearson correlation are listed by culture in Table 3. The left-hand column shows the Pearson correlation (r) between the variables "wage" and "other compensation," within the cultural level of analysis. In order to explore the unusually low or negative correlations reported for the Nordic and Germanic cultures, a partial correlation for country effects was performed, and these correlation coefficients are listed directly below the first coefficients. The right-hand column of this table shows the correlation coefficients of these cultures disaggregated into their component countries. As can be seen, these correlations are high; most are over .80. Although the Nordic culture originally had a negative value and the Germanic culture a low value (.06) before the effect of country was partialled out, the Nordic and Germanic cultures had partial correlations consistent with the other cultures.

Some of the variance in the compensation ratio is explained by wage level. Across all cultures, about 13% ($R^2 = .129$, $p = .0001$) of the variance in the wage-to-benefit ratio was explained by wage level. Within cultures, however, the effect was more striking, as illustrated in Table 4.

Finally, industry was used as a class variable to test for its effect upon the compensation ratio both within and across cultures. Across cultures, industry had no significant effect ($R^2 = .0858$, $p = .3556$) upon compensation ratios. Neither were any effects found within cultures, with the single exception of the Anglo culture in which significant differences were associated with industrial type ($R^2 = .4566$, $p = .0005$).

DISCUSSION

These analyses indicate that culture has a significant effect upon pay practices. Wages, other compensation, and the ratio of the two, are all significantly affected by cultural affiliation. Not only was culture significant for each variable, but the explained variance was high as well ($R^2 = .40$ to $.76$). Furthermore, a post-hoc test (Duncan's Multiple Range Test) graphically showed significant differences when comparing each culture with all other cultures. Although wage level does have some explanatory value in predicting the compensation ratio, these results still indicate that culture is a predominant factor that influences certain compensation patterns. The fact that culture has so substantive an effect upon pay practices is of interest because it suggests that phenomena beyond strictly local and national customs may impact upon how employees are paid. These results contradict Negandhi's [1975] assertion that employment practices are only marginally affected by cultural affiliation. Pay practices may in fact be influenced by the surrounding culture, and pay practices would therefore not be considered employment practices subject to Negandhi's theory that organizational function is the primary determinant of organizational practice. Finally, the doubts expressed by Cheng [1987] concerning the predictive utility of culture for macro-organizational phenomena would also not seem to apply to these pay practices. However, the primary focus of these

TABLE 2
The Effects of Culture on Wage,
Additional Compensation, and Ratio

	<i>df</i>	<i>SS_B</i>	<i>MS</i>	<i>F</i>	<i>p</i> <	<i>R</i> ²
<i>Dependent Variable = Wage</i>						
Model	4	1346.7611	336.6902	81.92	.0001	.3992
Error	493	2026.2172	4.1099			
<i>Dependent Variable = Additional Compensation</i>						
Model	4	589.4535	147.3633	133.31	.0001	.5196
Error	493	544.9598	1.1053			
<i>Dependent Variable = Ratio</i>						
Model	4	28.0904	7.0226	390.53	.0001	.7601
Error	493	8.8653	0.0179			

researchers has been on organizational issues and work values (non-pay related), and their theory may not accurately predict how the allocation of the compensation budget is determined between wages and benefits. The results of this study indicate that pay practices may well be influenced at a level above the organization, which may function as an element of the macro-environment in which organizations must compete for labor.

The *R* value ($R^2 = .75$, $P = .0001$) for cultural effects upon compensation ratio indicates that the cultural cluster model described by Ronen and Shenkar [1985] appears to be applicable to compensation practices. The cultural groupings from the Ronen and Shenkar [1985] model produced groups of countries (cultural clusters) whose pay practices differed significantly from those of each of the other cultures. Since the cultural cluster model would appear to be applicable, and since pay practices appear to have a strong cultural effect, certain inferences about pay practices can be drawn. First, although the level of pay shows some cultural influence, the greatest effect of culture is upon the ratio of other compensation to wages. Even though there are differences in the cost of labor between countries within a culture, the division of total compensation costs into wages and other compensation costs remains relatively constant across countries within the same cultural grouping. It is possible that compensation decisions concerning direct wages, benefits, and financial incentives are determined on the basis of some cultural predilection, whereas the different total labor costs between countries are determined more by market forces.

The Pearson correlation at the cultural level showed an interesting range of correlations within cultures. The Anglo, Oriental and Latin European cultural groups all had high correlations between wages and other compensation ($r > .840$, $p = .0001$; see Table 3). This effect has important implications for both compensation specialists and for strategic planners operating in the multinational environment. Overall increases in average wage may be found to have substantial costs beyond the increase in wages, and the

TABLE 3
**Within Cluster Correlation of Wage
 and Additional Compensation by Country**

Culture	Country
Anglo	U.S. $r = .9535$
$r = .9114$	Canada $r = .9002$
$r_{\text{partial/country}} = .9165$	Australia $r = 1.0000$
	Ireland $r = .9365$
	United Kingdom $r = .9189$
Oriental	Hong Kong $r = .4209$
$r = .8406$	Japan $r = .9627$
$r_{\text{partial/country}} = .9290$	Korea $r = .7493$
	Taiwan $r = .7897$
Latin European	Belgium $r = .9627$
$r = .9137$	France $r = .8837$
$r_{\text{partial/country}} = .9193$	Greece $r = .9815$
	Italy $r = .8593$
	Netherlands $r = .9302$
Nordic	Denmark $r = .8310$
$r = -.4252$	Finland $r = .9990$
$r_{\text{partial/country}} = .8411$	Sweden $r = .9815$
Germanic	Austria $r = .9908$
$r = .0619$	Switzerland $r = .8414$
$r_{\text{partial/country}} = .8572$	Germany $r = .9568$

TABLE 4
Effects of Wage Level on Compensation Ratios within Cultures

Culture	R-square	Probability
Anglo	.3017	.0001
Oriental	.0927	.0009
Latin European	.3126	.0001
Nordic	.2056	.0003
Germanic	.0036	.6404

relative disproportion of these increases could well make one country a more attractive operating environment than another. One final finding of interest was the relatively limited effect that industrial type had upon compensation ratios. Cross-culturally, no effects were associated with industrial type, while only the Anglo cultural group showed any relationship between industry type and compensation ratios. It is our belief, that since similar effects were not observed within other cultures, it is possible that this industry-based variation in the compensation ratio is a cultural anomaly of the Anglo group. It is certainly an issue that should be a topic of future research.

There are certain limitations inherent in this study. First, this study utilized pay data aggregated by industries within countries (the average hourly pay rate for an industry within a country). Pay data by company would have provided much more useful information (i.e., the effect of multinational companies on pay, the effect of industry on pay differences, etc.). Furthermore, information on specific pay practices, such as the types of incentives or benefits given to employees, would have provided more information about how pay practices differ. An additional limitation of the data set is that there is no way to differentiate between native-owned or foreign-owned companies. It is possible that ownership might have some effect upon pay practices as well. It is our belief that while this may affect the sensitivity with which we are able to assess the influence of cultural affiliation on pay, it does not minimize the significance of the present research. Finally, a larger number of countries and cultures for consideration would have increased our confidence in the findings.

Nonetheless, the significance of the results should indicate that there is some merit to the application of cultural cluster theory to compensation practices. Other variables that should be considered might include unionization densities, per capita GNP, and worker attitudinal data. Other studies might also examine the relationship between our "ratio" variable and specific work values to determine which work values are associated with differences in how employees are paid.

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