

A Multinational Examination of the Validity of the Cube One Framework: Comparison of Results in the U.S., Brazil, and Singapore

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[Abstract] The Cube One framework posits that employee-, customer-, and enterprise-directed practices are positively related to organizational performance. However, to date, published survey research on the Cube One framework has only been conducted with data from U.S. samples. The literature on multinational management has historically advocated that management practices be sensitive to and accommodative of differences in national cultures. However, recent meta-analytic research has found that management practices need not conform to national cultures. The present research, viewing the question of cultural fit agnostically, examines data on management practices pertinent to the Cube One framework in three national cultures. Identical measures (with translation into Portuguese for Brazil) were employed. Results indicate that the Cube One framework is valid in all three nations. However, national culture did moderate the magnitudes of practices.

[Keywords] Cube one framework, Multinational examination, Culture, National Culture

The Cube One framework posits that successful organizations will enact high levels of three sets of practices: enterprise-, employee- and customer-directed. Dividing levels of enacted practices into three levels—high, middle, and low—organizations that are high in enacting all three sets of practices are classified in Cube One; those low on all three sets of practices are classified in cube 27. A schematic representation of the Cube One framework is provided in Figure 1.

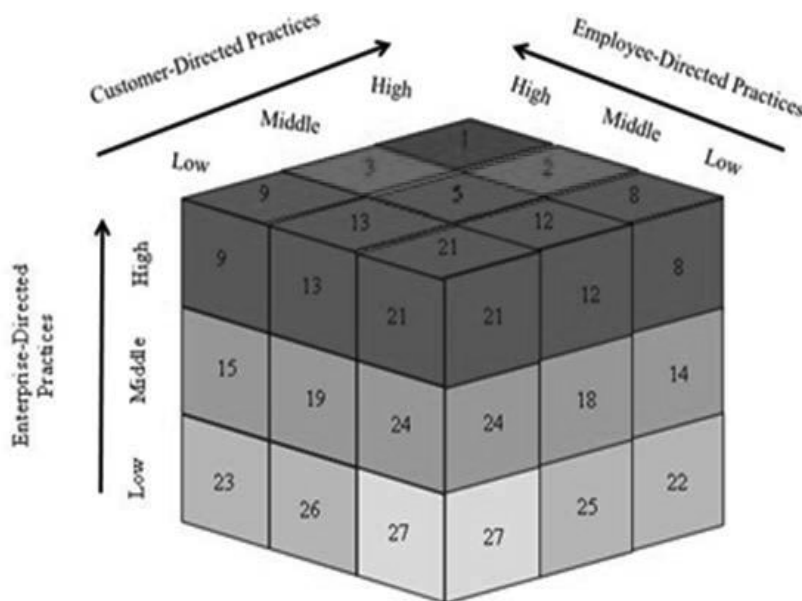


Figure 1. Cube One Framework

Enterprise-directed practices are related to improving productivity, and the motivation, knowledge and skills of employees. Among these practices is a set that has been called GMFAC: the extent to which organizations set goals, measure performance, provide feedback on performance, hold individuals accountable, and provide appropriate consequences such as individual or team-based rewards. These practices have been measured by 10 items (see Kopelman & Protzas, 2012, for all 30 items assessing enterprise, customer-, and employee directed practices). Customer-directed practices include measuring customer satisfaction, attempting to continually improve service/product quality, and providing employees the latitude to satisfy customers. Employee-directed practices are those which are enacted to enhance employee satisfaction and loyalty, and include the minimization of status differences, the provision to the extent possible of employment security, providing accommodations to ameliorate work-life conflicts and so forth

Research and writing on national cultures has long held that it is imperative that management practices be in alignment with national cultures. According to Hofstede (1993) there are “cultural constraints in management theories,” (p. 81) which means that “not only practices but also the validity of theories may stop at national borders.” (p. 82). In his follow-up work Hofstede (2001) advised as follows: “For best results, a multinational’s management practices should fit the local culture” (p. 441). Thus, national culture perspectives emphasize that cultural differences constrain or even dictate whether management practices will be effective in different cultures (e.g., Adler, 2008). Crossland and Hambrick (2011) indicate that country-level variables will at minimum moderate effects of management practices.

Within the past few years research has found that a fit between national culture and management practices was not essential. Rable, et al. (2014) in a meta-analytic review of 156 studies involving more than 35,000 firms and establishments in 29 countries found results which were startling. They found that the fit between high performance work practices and business performance was “on average more strongly related in countries where the degree of a priori hypothesized consistency between [practices] and national culture (according to national culture perspectives) was lower.” (p. 1011). Further, they add: “[i]n fact, although we found moderating effects of national culture, these effects were mostly the opposite of those hypothesized a priori using standard national culture-based logic.” (p. 1020). They found that high performance work practices were positively related to business performance in all 29 countries, and significantly so in all but three countries.

Along these lines, Hartnell, et al. (2016) found that when it comes to task orientation, leaders are more effective when their leadership style is at odds with organizational culture. More specifically, they found that firm performance was highest when a leader’s task orientation is dissimilar to the organization’s culture. Firm performance was lower when leader task orientation matched that of the organizational culture (i.e., high-high and low-low).

Bloom and colleagues (2012) in a study of more than 10,000 organizations across 20 countries found that three sets of practices were consistently associated within and across countries with higher productivity, profits and growth. The three sets of practices were goal setting, performance measurement, and incentives—three of the five components of GMFAC. They concluded that management practices explained “the astounding differences in performance across firms and countries.

The Present Research

In all three samples, participants completed surveys on a voluntary and anonymous basis. In addition to biographic information, respondents indicated how frequently enterprise-, customer, and employee-direct practices were enacted. All items were scored on a 5-point scale with anchors ranging from 1 = never or almost never to 5 = always or almost always.

Summated scores for Enterprise-directed practices (“EntDP”), Customer-directed practices, (“CustDP”), and Employee-directed practices (“EmpDP”) ranged from 10 to 50. Organizational performance was assessed by three items, specifically: “Overall, how successful is the organization in accomplishing its mission and goals?” “Overall, how does the organization’s performance compare to the performance of similar, or competitive, organizations?” and “Overall, at what percent of maximum potential

performance (the maximum being 100%) is the organization now achieving?" Responses were summed such that scores could range from 3 to 30. Because the organizational performance measure (OP1) does not include financial metrics, it is equally apt to for-profit companies as well as nonprofit/government organizations. In the Brazilian sample, participants also completed a 5-item behavior-based performance measure (OP2)—an abbreviated version of the scale developed by Griffin, Neal, & Parker (2007). Additionally, participants were asked about the extent to which they would endorse an item assessing self-efficacy: "In general, a person can accomplish whatever he/she sets out to accomplish." This item was used to assess discriminant validity and to provide a marker regarding concerns about common method and source bias in the findings.

U.S. Sample

Data were collected from 702 people whose average age was 31 ($sd = 6.3$); 53% were women; and 67% worked or had worked in the private sector. Mean scores on enterprise-directed practices (EntDP), customer-directed practices (CustDP), and employee-directed practices (EmpDP) and Organizational Performance (OP1), are provided in Table 1, and correlations with organizational performance (OP1) are provided in Table 2.

Table 1

Means of Employee-, Customer-, and Enterprise-directed and Organizational Performance by County

Variables	US ¹		Brazil ²		Singapore ³	
	<i>m</i>	<i>sd</i>	<i>m</i>	<i>sd</i>	<i>m</i>	<i>sd</i>
Enterprise-directed	30.99	6.90	29.64	6.74	36.93	6.05
Customer-directed	28.23	7.91	27.88	8.51	35.72	6.15
Employee-directed	31.34	7.81	29.40	8.49	35.23	7.37
Org. Perf.1	20.08	5.07	18.81	6.70	21.17	4.77
Org. Perf.2	n/a	n/a	14.36	4.37	n/a	n/a

Note: ¹n = 695-702; ²n = 129; ³n = 60.

Table 2

Correlations between Three Types of Practices and Organizational Performance by County

Variables	1 Enterprise-directed			2 Customer-directed			3 Employee-Directed			4 Org. Perf. 1			5 OP 2
	US ¹	Braz ²	Sing ²	US	Braz	Sing	US	Braz	Sing	US	Braz	Sing	Braz
1. Enterprise-directed	(.77)	(.75)	(.81)										
2. Customer-directed	.63***	.66***	.62***	(.83)	(.84)	(.82)							
3. Employee-directed	.60***	.50***	.71***	.52***	.51***	.47***	(.86)	(.86)	(.87)				
4. Org. Perf.1	.49***	.37***	.27*	.42***	.36***	.43**	.52***	.42***	.43**	(.83)	(.94)	(.92)	
5. Org. Perf.2	n/a	.46***	n/a	n/a	.44***	n/a	n/a	.53***	n/a	n/a	.57***	n/a	(.85)

Note: US = United States; Braz = Brazil; Sing = Singapore. Cronbach alpha measures of internal consistency reliability appear on diagonals in parentheses. ¹n = 695-702; ²n = 129; ³n = 60. When all three sets of practices were entered together in a regression equation on Org. Perf.1, R's were: U.S. .57, Brazil .48, and Singapore .54. When regressed on Org. Perf. 2: Brazil. 58.

* $p < .05$, two-tailed; ** $p < .01$, two-tailed; *** $p < .001$, two-tailed

Correlations between the three predictors (EntDP, CustDP, and EmpDP), and OP1 were .49, .42, and .52, respectively, all significant at $p < .001$. When all three predictors were entered in a multiple regression the degree of association was $R = .57$. As further evidence of validity the mean correlation between all four variables and self-efficacy was $r = .05$. Hence the results cannot be attributed to common method variance.

Brazil Sample

Data were collected from 129 people whose average age was 28 ($sd = 7.7$); 32% were women; and 81% worked in the private sector. Mean scores on enterprise-directed practices (EntDP), customer-directed practices (CustDP), and employee-directed practices (EmpDP), and both organizational performance measures are provided in Table 1, and correlations with organizational performance 1 (OP1) and organizational performance 2 (OP2) are provided in Table 2.

Correlations between the three predictors (EntDP, CustDP, and EmpDP), and OP1 were .37, .36, and .42, respectively, all significant at $p < .001$. Correlations with the behavior-based measure of organizational performance (OP2) were even higher at .46, .44, and .53. When all three predictors were regressed on OP2, the degree of association was $R = .58$. The mean correlation between the three independent variables and the two dependent variables with self-efficacy was $r = .02$. Common method bias is evidently not a problem in this sample.

Singapore Sample

Data were collected from 60 individuals whose average age was 29 ($sd = 5.5$); 43% were women; and 79% worked in the private sector. Mean scores on EntDP, CustDP, EmpDP, and OP1 are provided in Table 1. Correlations between the three predictors (EntDP, CustDP, and EmpDP), and OP1 were .27, .43, and .43, respectively, all significant at $p < .05$. When all three predictors were entered in a multiple regression the degree of association was $R = .54$. The mean correlation with self-efficacy was $r = .19$ with an average significance level of $p = .07$. But this finding makes sense on a post hoc basis. In Singapore the national culture places a particularly high value on performance orientation in practice (Harzing, 2016), so this cultural value accounts in part for the lack of discriminant validity.

Results

Mean scores with respect to Enterprise-Directed Practices, Customer-Directed Practices, and Employee-Directed practices were similar in the U.S. and Brazil; the scores, after rounding, being 31 and 30; 28 and 28; and 31 and 28, respectively. The third comparison, an exact difference of 1.94 points, was statistically significant ($p = .028$). Evidently, organizations in the U.S. enacted more Employee-Directed practices than was the case in Brazil. As would be expected, given the slightly higher scores on practices implemented, organizational performance was somewhat higher in the U.S. compared to Brazil (1.3 points), the difference being statistically significant ($p = .035$).

In Singapore scores on Enterprise-, Customer-, and Employee-Directed practices were substantially higher than in the U.S., the means, after rounding, being 37 and 31; 36 and 28; and 35 and 31, respectively. All differences were statistically significant at $p < .001$. Notwithstanding the sizably higher levels of enacted practices, Organizational Performance was just 1.1 points higher in Singapore than in the U.S, a difference that was not significant ($p = .28$).

The most salient finding is that in concert, the combined associations between Enterprise-, Customer- and Employee-Directed practices and Organizational Performance in the U.S., Brazil, and Singapore were all sizable at $R = .54$, .48, and .54, respectively. When the behavior-based measure of performance was used in Brazil, the multiple regression was $R = .58$. Thus, it seems reasonable to conclude that there is evidentiary support for the Cube One framework in three national cultures.

Discussion and Conclusion

To date, evidentiary support for the Cube One framework has rested on three bases: 1) multiple in-depth case studies (e.g., Kopelman, Chiou, Lipani, and Zhu, 2012); 2) examination of practices reported in Fortune's annual ratings of America's Most Admired Companies, and examining these ratings, on a within-industry basis, in terms of market capitalization data (e.g., Kopelman, 2013); and 3) survey research conducted in the U.S. (e.g., Kopelman & Prottas, 2012); Letzler, E. A., Kopelman, R. E., & Prottas, D. J., 2013). The present results indicate that the Cube One framework is valid in three national cultures. Indeed, correlational results were mostly moderate to large in terms of effect size (see Cohen, 1992), and multiple regression results were large in three out of four instances—the fourth being $R = .48$, which approached large (.50). The median multiple regression was $R = .54$.

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