

## Validity Study

# Relationship between the Performance Perspectives Inventory's Leadership Scales and Job Performance of Quick Service Restaurant Managers

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*We investigated the relationship between the leadership scales of the Performance Perspectives Inventory (PPI, Abraham & Morrison, 2002, 2003) and job performance in a sample of quick service restaurant managers. PPI Establishing (a measure of entrepreneurial, or change leadership) correlated positively with three-year average gross revenue ( $r = .37$ ,  $n = 31$ ) and PPI Managing (a measure of general managerial potential) correlated positively with three-year average profitability ( $r = .44$ ,  $n = 31$ ). Additionally, correlations are reported between the PPI Big Five personality scales (Agreeableness, Conscientiousness, Extraversion, Openness, Stability) and job performance.*

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### Sample

The sample consisted of 45 incumbent managers employed by a large restaurant chain in the southwestern United States. Study participants were responsible for overall restaurant operations and performance, including store volume, profitability, expense control, and personnel decisions. The mean age of sample participants was 38.7 years, and the median education level was "high school graduate or equivalent." The sample was predominantly male (91%). In terms of ethnicity, 82% were White, 13% were Hispanic, and 5% did not provide ethnic group information.

### Predictor Information

The Performance Perspectives Inventory (PPI, Abraham & Morrison, 2002, 2003) is a 155-item measure of the Big Five personality factors (Digman & Takemoto-Chock, 1981; Goldberg, 1992). Respondents indicate how accurately each item describes them using a five-point scale. The PPI includes the "Big Five" personality scales (Agreeableness, Conscientiousness, Extraversion, Openness, Stability), their associated subscales, and several occupational scales designed for selection into commonly occurring organizational roles.

Of particular interest in this study were the PPI Leadership occupational scales: Establishing and Managing. PPI Establishing measures individuals' proclivity for establishing a new venture or project or taking an existing organization in new directions. PPI Managing measures individuals' potential fit with roles involving overseeing people or projects in order to achieve established goals. In

terms of construct validity, both scales align with other personality-based leadership potential and interest scales. Both PPI Establishing and PPI Managing correlate positively with related measures such as the Hogan Personality Inventory's (HPI; Hogan & Hogan, 1995) Managerial Potential scale ( $r = .53, n = 631, p < .01; r = .59, n = 631, p < .01$ , respectively) and the California Psychological Inventory's (CPI; Gough, 1996) Leadership Potential scale ( $r = .54, n = 655, p < .01; r = .64, n = 655, p < .01$ , respectively) (Abraham & Morrison, 2002; Morrison, Burnett, & Abraham, 2004). The PPI Establishing scale is also positively correlated with the CPI's Creative Temperament scale ( $r = .29, n = 655, p < .01$ ), reflecting an innovative component to this leadership style. The PPI Establishing scale has an internal consistency (Cronbach's alpha) reliability of .92 ( $n = 262$ ), and a test-retest reliability of .88 ( $n = 78, 32$ -day retest interval). PPI Managing has a Cronbach's alpha coefficient of .91 ( $n = 262$ ), with a test retest correlation of .86 ( $n = 78, 32$ -day retest interval).

### **Criterion Information**

Objective store performance indices were used as criterion data. These annual indicators included gross revenue, profitability (expressed as a percent of gross revenue), and various expense measures (labor, utilities, repairs, and supplies; also expressed as percent of gross revenue). Performance data collection occurred over a three-year period from 2000 to 2002. For each criterion variable, missing values were substituted with the mean value from available years.

### **Hypotheses**

Although part of a larger restaurant chain, the restaurant managers' role resembled that of entrepreneurs in several ways. The study participants bore ultimate responsibility for driving sales, were expected to demonstrate ingenuity when it came to related marketing and promotional activities, and were eligible for profit sharing or ownership stakes after several years in the job. At the same time, the rigor and discipline associated with traditional management were also critical to successful cost control efforts. Thus we expected the PPI Establishing scale to correlate positively with sales (gross volume). In addition, we expected the PPI Managing scale to correlate with measures influenced by fiscal discipline (positively with profitability and negatively with expense variables).

### **Validity Information**

The means and standard deviations of the primary study variables were as follows: Establishing ( $M = 3.72, SD = .33$ ), Managing ( $M = 3.87, SD = .41$ ), average store volume ( $M = \$985,492.80, SD = \$289,508.30$ ), average profitability ( $M = 22.07\%, SD = 4.59$ ), average labor costs ( $M = 23.97\%, SD = 1.64$ ), average utility costs ( $M = 2.60\%, SD = .50$ ), average repair costs ( $M = 1.73\%, SD = .46$ ), and average supply costs ( $M = 28.01\%, SD = 1.22$ ). As expected, PPI Establishing correlated significantly with average volume ( $r = .37$ ) and PPI Managing was

significantly related to store profitability ( $r = .44$ ). PPI Managing was negatively related to average labor costs ( $r = -.42$ ). No significant relationships emerged between either of the leadership scales and the remaining expense variables using the two-tailed threshold (see Table 1).

To provide additional information for future meta-analytic studies, we performed an exploratory analysis to assess the relationship between overall job performance and the PPI Big Five scales (Agreeableness, Conscientiousness, Extraversion, Openness, and Stability). Table 1 shows the results, and Table 2 contains correlations among the PPI scales investigated. In some cases, significant correlations were found between Big Five scales and the performance variables. In particular, Conscientiousness was significantly related to average volume, profitability and labor costs. Openness was also correlated with average volume. These findings are not surprising, since both leadership scales are partially derived from items comprising the Conscientiousness scale, and PPI Establishing is partly based on Openness (see Tables 1 and 2).

**Table 1: Correlations with Performance Variables**

	Reliability		Criterion Validity Correlations (n = 31)					
	Alpha	Test-retest (n = 78)	Volume	Profitability	Labor	Utilities	Repairs	Supplies
Volume	n/a	n/a						
Profitability	n/a	n/a	.48**					
Labor	n/a	n/a	-.41*	-.79**				
Utilities	n/a	n/a	-.09	-.05	-.27			
Repairs	n/a	n/a	-.78**	-.37*	.20	.35		
Supplies	n/a	n/a	-.18	-.28	.25	.35	.11	
PPI Scale								
Establishing	.92	.88	.37*	.34	-.34	-.26	-.16	-.15
Managing	.91	.86	.27	.44*	-.42*	-.07	-.09	-.31
Agreeableness	.78	.90	.31	.24	-.29	-.10	.10	.01
Conscientiousness	.88	.92	.43*	.40*	-.41*	-.21	-.16	-.26
Extraversion	.79	.89	-.08	.12	-.03	-.11	-.17	.22
Openness	.84	.87	.42*	.16	-.21	-.27	-.12	-.16
Stability	.85	.86	.10	.35	-.26	-.05	-.06	-.10

Except for job performance, all reliabilities are from the PPI Technical Manual or normative database

**Table 2: Correlations among PPI Scales**

PPI Scale	PPI Scale						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Establishing							
2. Managing	.73**						
3. Agreeableness	.42**	.56**					
4. Conscientiousness	.83**	.81**	.62**				
5. Extraversion	.50**	.36**	.00	.24			
6. Openness	.82**	.65**	.32*	.67**	.32*		
7. Stability	.55**	.82**	.40**	.47**	.34*	.53**	

\* p < .05, \*\* p < .01

### References

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### Author Notes

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