

## *Validity Study*

# Relationships Between Personality Measures and Job Performance Ratings Among Far Eastern Couriers

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*Three hundred twenty one (321) Far Eastern couriers completed the Job Performance Personality Inventory (JPPI), an occupational-based personality inventory. All “Big Five” personality dimensions were significantly correlated with job performance appraisal scores at varying magnitudes, with the most highly correlated dimension being conscientiousness. Based upon stepwise multiple regression analyses, a selection composite was designed to include: conscientiousness, surgency (low), emotional stability, and agreeableness. This composite was significantly correlated with performance appraisals overall ( $r = .33$ ), as well as across each of the four East Asian countries sampled ( $.24 \leq r \leq .39$ ).*

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### **Sample**

This study included a representative sample of 321 couriers from the local branches of a large international parcel delivery company. The sample was similarly distributed across four East Asian countries: Hong Kong (22%), Singapore (22%), Taiwan (23%), and Japan (33%). The sample was almost entirely male (99%), with a mean age of 34.0 ( $SD = 5.7$ ), and an average job tenure of 6.7 years ( $SD = 4.2$ ).

### **Predictor Information**

The Job Performance Personality Inventory (JPPI) is an occupationally-oriented personality inventory (Dover, Nevo, Fine, & Notea-Koren, 2005). The JPPI has 30 facet scales, with 14 items each, which can be administered modularly, and 5 domain scales that are comparable to the “Big Five” personality model. Each item includes a behaviorally anchored statement for which participants were asked to rate the level at which the statement characterizes themselves on a 5-point scale from (1) “*very uncharacteristic*” to (5) “*very characteristic*”. Items were administered in the participants’ native languages (i.e., Traditional Chinese, Japanese, and English). In all cases, translations were carried out by bilingual psychologists native to the local cultures, and then back-translated by independent psychologists, in cooperation with the test authors.

In this study, 25 of the 30 facet scales were chosen a priori for validity research. The median facet scale reliability was  $\alpha = .81$ , and the median domain scale reliability (comprised of three to seven facet scales each) was  $\alpha = .87$ . Domain and facet reliability levels were consistent across countries and languages. While

reliability coefficients were satisfactory, unexpectedly high domain scale intercorrelations (ranging from .69 to .83) were indicative of the facets' loadings on alternate and/or multiple domain factors. This was considered to be a unique finding that was not reported previously among Western samples (Dover et al., 2005), and may be related to structural differences in the Big Five model that have been found elsewhere in some cross-cultural studies of personality among Far Eastern samples (e.g., Cheung et al., 2001).

### Criterion Information

The criterion used for this study was an overall measure of job performance. This measure is a composite of several job-related performance criteria, rated by the participants' immediate supervisors on a scale from 1 to 10. This overall rating is updated annually, and is used for a variety of personnel decisions within the organization. Sub-scores were not available.

### Validity Information

Table 1 presents the domain scales' correlation coefficients with the criterion. All domain scales were found to be significantly valid, ranging from  $r = .22$  to  $r = .32$ . All facet scales (see Table 2), were also found to be significantly valid at varying magnitudes, ranging from  $r = .11$  to  $r = .33$ .

In developing an overall selection composite, the domain scales were regressed on the criterion using a stepwise multiple regression analysis that yielded an adjusted  $R$  of .31,  $F(1,320) = 35.08$ ,  $p < .001$ . In the output of this equation, only the dimension of *conscientiousness* was retained, whereas the remaining scales were excluded.

**Table 1**

**Correlations Between Personality Domains and Performance Ratings ( $N = 321$ )**

	<i>M</i>	<i>SD</i>	(1)	(2)	(3)	(4)	(5)	(6)
1. Job Performance	5.44	1.64	--	.29**	.32**	.24**	.25**	.22**
2. Agreeableness	3.62	.40		(.94)	.88**	.69**	.84**	.88**
3. Conscientiousness	3.56	.40			(.87)	.73**	.86**	.82**
4. Emotional Stability	3.48	.43				(.76)	.78**	.72**
5. Openness to Experience	3.53	.42					(.90)	.87**
6. Surgency	3.40	.46						(.94)

Note: Reliability estimates are shown in parentheses.

\* $p < .05$ ; \*\* $p < .01$  (two-tailed)

**Table 2****Correlations between personality facets and performance ratings (N = 321)**

Scale	Min	Max	<i>M</i>	<i>SD</i>	$\alpha$	<i>r</i>
A – Agreeable	2.21	4.79	3.71	.48	.83	.24**
A – Cooperative	2.57	4.71	3.64	.39	.67	.24**
A – Emotionally Intelligent	2.57	4.71	3.65	.42	.77	.28**
A – Instructive	1.93	5.00	3.58	.55	.88	.28**
A – Responsive	2.36	5.00	3.58	.45	.75	.29**
A – Socially Attentive	2.43	5.00	3.58	.47	.81	.21**
C – Ambitious	2.07	5.00	3.77	.54	.85	.28**
C – Autonomous	2.22	4.39	3.33	.35	.59	.22**
C – Dependable	2.43	5.00	3.73	.47	.80	.33**
C – Planning & Coordinating	2.21	4.71	3.39	.48	.76	.24**
E – Adaptable	2.14	4.93	3.56	.51	.82	.17**
E – Cautious	1.71	4.85	3.51	.48	.76	.25**
E – Stress Tolerant	1.57	5.00	3.37	.56	.85	.18**
O – Decisive	2.07	4.93	3.48	.49	.80	.23**
O – Interest Seeking	1.93	4.57	3.34	.45	.76	.11*
O – Problem Solving	1.64	5.00	3.47	.55	.89	.25**
O – Resourceful	2.07	4.71	3.45	.50	.85	.17**
O – Self Developing	2.43	5.00	3.83	.51	.86	.24**
S – Communicative	2.00	4.64	3.37	.50	.80	.22**
S – Energetic	2.29	5.00	3.50	.51	.78	.27**
S – Extraverted	1.64	5.00	3.41	.56	.84	.11*
S – Leading	1.77	4.93	3.25	.59	.86	.23**
S – Persuasive	1.71	4.93	3.36	.58	.88	.19**
S – Self Confident	1.93	4.58	3.18	.45	.68	.19**
S – Sociable	1.93	5.00	3.77	.56	.85	.13*

\* $p < .05$ , \*\* $p < .01$  (two-tailed)

Note: The letters preceding the facet names denote their associated domain scales: (A) = Agreeableness, (C) = Conscientiousness, (E) = Emotional stability, (O) = Openness to experience, (S) = Surgency.

In repeating this analysis by country, however, the other domain scales, with the exception of *openness to experience*, were retained in one or more instances. Therefore, in developing a standard overall selection composite for use across East Asia, four domain scales (*conscientiousness*, *surgency*, *emotional stability*, and *agreeableness*) were utilized. Specifically, these scales were aggregated into a composite variable using unit weights, whereas *surgency* was assigned a negative weighting, based on the consistent direction of its beta coefficient in all countries. Among the entire sample, this composite was significantly correlated with the criterion ( $r = .33$ ,  $p < .001$ ).

While the validity of the selection composite was similar to that yielded by *conscientiousness* alone, it was nevertheless considered to be a more reliable and stable predictor than any one given scale for usage within each country (see Table 3). To examine the stability of the composite across the represented cultures, the

composite was individually cross-validated for each country sampled. In all cases, the composite was found to be significantly correlated with job performance, as follows: Hong Kong,  $r = .39$ ; Japan,  $r = .31$ , Singapore,  $r = .26$ ; and Taiwan,  $r = .24$  (for all values  $p < .05$ ).

**Table 3**  
**Correlations between personality domains and performance ratings by country**

Country	Hong Kong	Japan	Singapore	Taiwan
<i>N</i>	72	106	70	73
Agreeable	.17	.43**	.20	.07
Conscientiousness	.30**	.37**	.25*	.18
Emotional Stability	.41**	.19*	.25*	.20
Openness	.22	.35**	.14	.12
Surgency	.12	.35**	.20	.03

\* $p < .05$ , \*\* $p < .01$  (two-tailed)

## References

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