

# META DYNAMICS™ PROFILING TOOL

## RESEARCH VALIDITY

**DEFINITION:** Validity is an important psychometric indicator of the soundness of a measurement tool that evaluates the instrument's ability to measure what it is supposed to measure, and the extent to which it can predict related outcomes.

### Content & Face Validity

**DEFINITION:** Face validity is the extent to which items on a test appear to be meaningful and relevant to the construct being measured.

All items on the MDPT(i) have been operationalised to reflect behaviour appropriate to the particular construct being measured.

### Factorial Validity

To establish the factor structure of the MDPT(i), a factor analysis of the 16 dimensions that made up the E.S.I.P. Critical Alignment Model categories was conducted.

#### **The following criteria were utilised:**

1. A criteria of eigenvalues greater than 1;
2. Minimum of 3 items per factor; and
3. Items retained in each factor having a factor loading greater than 0.45.

The initial factor analysis produced 5 factors with an eigenvalue greater than 1; however the 2 remaining criteria were not met. A 5-factor solution of the Principal Component analysis (with a varimax rotation) afforded the greatest interpretability and satisfied the three criteria mentioned above. The 5-factor solution revealed a total of approximately 85.05% of the variance. Taken together, these factors **closely resemble the four domains identified by the E.S.I.P. Critical Alignment Model i.e., Environment, Structure, Implementation, and People.**

### Construct Validity

**DEFINITION:** Construct validity is the extent to which psychological test measures a psychological construct. Construct validity is established through its internal test structure, the content of the test, and the interrelations of the test scores with other tests alike.

To estimate the degree to which any two measures are related to each other, a **correlation coefficient** is used to examine the pattern of intercorrelations among our measures. Correlations between theoretically similar measures should be “high” while correlations between theoretically dissimilar measures should be “low”.

**The MDPT(i) scales was correlated with the NEO PI-R, hypothesised to have a particular theoretical relationship to MDPT(i).** Nine such scales provided a direct comparison and is presented in the table below.

**The results in Table 1.7 suggests that scales on the MDPT(i) have construct validity with the Big 5 factors of personality.** It is noted that the majority of correlations are relatively low, indicating that the MDPT(i) may be measuring something other than simply personality. **This is complimentary to the construct that the E.S.I.P. Critical Alignment Model measures thinking styles using underlying personality traits as measurements.**

*Table 1.7*

	N	E	O	A	C
Intrinsically Motivated	-.10	.26	.31	.25	.21
Resilience	-.53	.33	.23	.27	.54
Outspoken	-.32	.42	.32	.00	.37
Openness to Experience	-.44	.39	.49	.19	.39
Achieving	-.27	.32	.30	.23	.47
Self-Efficacy	-.37	.31	.26	.22	.43
Outgoing	-.16	.37	.38	.42	.35
Perceptive	-.20	.28	.29	.45	.12
Adaptability	-.25	.28	.62	.15	.27

N = Neuroticism; E = Extraversion; O = Openness; A = Agreeableness; C = Conscientiousness