

Chapter VIII

MODEL VALIDATION

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Chapter VIII

MODEL VALIDATION

8.1 INTRODUCTION

As discussed in Chapter VII of this Thesis it is not feasible to quantify a personality score using either the singularity concept at the vertex of the triangle or the duality concept at the base. Thus the newly developed model is validated by adopting the median approach by suitably quantifying the trilogy of *Triguṇa*.

In this research instrument a trait (*Prakṛti*) is used as the stimulus to elicit a behavior of the person (*Puruṣa*) that can be attributed to one of *Triguṇa* in order to ascertain the predominant personality. Thus we are able to measure the singularity on the basis of duality using the medium of trilogy.

8.2 DATA COLLECTION AND SAMPLE FRAME.

The data was collected from different groups of active and retired professionals and also learners and practitioners of *Yoga*. The adequacy of the sample was verified applying appropriate statistical formula using mean and standard deviation with assuming significance level of 1% and desired power of test as 95%.

Sl.no	Sample Description	Sample Size
01	MANAGEMENT EDUCATORS (M.E)	91
02	POLICE OFFICERS (P.O)	65
03	RETIRED PROFESSIONALS (R.P)	43
04	YOGA LEARNERS (Y.L)	53
05	YOGA PRACTITIONERS (Y.P)	60

Table8.2Distribution of Sample

8.3 EMPIRICAL ANALYSIS:

To test the research hypothesis summative percentage score of the respondents was computed for all the sample groups. In this study t- Test of two samples, assuming unequal variance at 5% significance level was used to test the equality of mean scores of different sample groups. The item in the instrument had 3 options for *Triguna* in the order i.e. TSR with assigned pseudo scores of 0,1and 2 respectively, for each item the responses were randomly arranged. Hence the response score key was developed for decoding and tabulating scores for all items. For the purpose of tabulation and test of hypothesis, MS –EXCEL 2010 with data Analysis ADD-IN Pack was used.

8.4 DESCRIPTIVE STATISTICS OF SUMMATIVE TRIGUNA SCORE

The descriptive statistics for the summative percentage score of the sample data is computed and tabulated as below;

	M.E	P.O	R.P	Y.L	Y.P
Mean	62.46	62.34	61.93	58.47	48.75
Standard Error	0.73	0.92	0.96	1.00	0.69
Median	63	63	61	58	49
Mode	68	63	60	50	49
Standard Deviation	5.91	7.43	6.32	7.59	5.30
Sample Variance	34.94	55.20	39.92	57.66	28.15
Kurtosis	-0.45	0.97	-0.16	-0.32	0.33
Skewness	-0.23	-0.96	0.06	0.11	-0.23
Range	26	37	27	32	27
Minimum	49	38	49	43	33
Maximum	75	75	76	75	60
Actual Sample Size	91	65	43	58	60

Table 8.4.1 Descriptive Statistics of Summative *Triguna* Score

The Descriptive statistics for *Triguna* scores indicates normal distribution of all sample groups with very low skewness. Since the true randomness of all the samples could not be established, t test was found to be most appropriate for testing hypothesis.

	ME	PO	RP
Mean	37.58242	37.8	67.2093
Standard Error	1.113911	1.375307	1.00638
Median	37	34.5	66
Mode	33	30	61
Standard Deviation	10.62603	11.17304	6.599272
Sample Variance	112.9126	124.8369	43.55039
Kurtosis	3.0461	-0.71524	0.303769
Skewness	-0.25478	0.643463	0.235641
Range	67	38	34
Minimum	28	22	50
Maximum	67	60	84
Sum	3420	2494.8	2890
Count	91	66	43

Table 8.4.2: Descriptive Statistics of Age of Professionals

The Descriptive statistics for age of respondents indicates normal distribution of all sample groups with very low skewness. The average age of retired professionals is almost double of

the active professionals. This difference was deliberately introduced to test the influence of age on *Triguna* score and thereby to establish the standardization of the model.

	ME	PO	RP
Mean	13.6989	14	37.73256
Standard Error	0.920928	1.255849	1.063898
Median	12	11.5	36
Mode	10	2	35
Standard Deviation	8.785095	10.20256	6.976447
Sample Variance	77.17789	104.0923	48.67082
Kurtosis	2.211655	-0.50086	0.05427
Skewness	1.253052	0.601356	0.293047
Range	46	39	28
Minimum	0	1	22
Maximum	46	40	50
Sum	1246.6	924	1622.5
Count	91	66	43

Table 8.4.3: Descriptive Statistics of Experience of Professionals

The Descriptive statistics for experience of respondents indicates normal distribution of all sample groups with very low skewness. The average experience of retired professionals is almost double of the active professionals. This difference was deliberately introduced to test the influence of experience on *Triguna* score and thereby to establish the standardization of the model.

	M.E	P.O
Mean	62.76	62.34
Variance	35.30	55.20
Observations	91	65
Hypothesized Mean Difference	0	
df	118	
t Stat	0.377	
P(T<=t) two-tail	0.707	
t Critical two-tail	1.980	

Table 8.4.4: t-Test of Management Educators & Police Officers

From the above table it is inferred that mean value of Management Educators (62.76) and mean value for Police professionals (62.34) differed marginally. At 5% level of significance the t- calculated value is 0.377, which is less than the critical value of 1.980 for 2-tail test. Hence is accepted that there is no significant difference between the summative percentage scores of *Triguṇa* in Management Educators and Police Officers.

	M.E	R.P
Mean	62.76	61.89
Variance	35.30	44.56
Observations	91	36
Hypothesized Mean Difference	0	
df	58	
t Stat	0.682	
P(T<=t) two-tail	0.498	
t Critical two-tail	2.002	

Table 8.4.5: t-Test of Management Educators & Retired Professionals

From the above table it is inferred that mean value of Management Educators (62.76) and mean value for Retired Professionals (61.89) differed marginally. At 5% level of significance the t- calculated value is 0.682, which is less than the critical value of 1.980 for 2-tail test.

Hence it is accepted that there is no significant difference between the summative percentage scores of *Triguna* in Management Educators and Retired Professionals.

Conclusion:

From the above descriptive statistics and results of the tests, it is evident that there is no significant difference in the summative percentage scores of *Triguna* for all sample groups of professionals. Hence it can be concluded that the age and experience of the professionals have no impact on their *Triguna* score. And also all professionals exhibit a score higher than 55% threshold and hence are considered as high in *Rajas*.

Thus it satisfies the hypothesis 1H₁, that is, “All Professionals are *Rajasic* personalities irrespective of age and Experience.

Analysis of Management Educators &Yoga Learners

	M.E	Y.L
Mean	62.76	57.87
Variance	35.30	56.42
Observations	91	53
Hypothesized Mean Difference	0	
Df	90	
t Stat	4.058	
P(T<=t) two-tail	0.000	
t Critical two-tail	1.987	

Table8.4.6: t-Test of Management Educators &Yoga Learners

From the above table it is inferred that mean value of Management Educators (62.76) and mean value for *Yoga* Learners (57.87) differed marginally. At 5% level of significance the t- calculated value is 4.058, which is more than the critical value of 1.980 for 2-tail test. Hence is accepted that there is significant difference between the summative percentage scores of *Triguna* in Management Educators and *Yoga* Learners.

Analysis of Retired Professionals & Yoga Learners

	R.P	Y.L
Mean	61.93	57.87
Variance	39.92	56.42
Observations	43	53
Hypothesized Mean Difference	0	
Df	94	
t Stat	2.877	
P(T<=t) two-tail	0.005	
t Critical two-tail	1.986	

Table 8.4.7: t-Test of Retired Professionals & Yoga Learners

From the above table it is inferred that mean value of Retired Professionals (61.93) and mean value for Yoga Learners (57.87) differed marginally. At 5% level of significance the t-calculated value is 2.877, which is more than the critical value of 1.980 for 2-tail test. Hence is accepted that there is significant difference between the summative percentage scores of *Triguṇa* in Retired Professionals and Yoga Learners.

Conclusion: From the results of the above tests, it is evident that there is significant difference in the summative percentage scores of *Triguṇa* between all sample groups of Professionals, who were not exposed to any form of Yoga, and the learners of *Yogāsana*s. Hence it can be concluded that the learning of Yoga have an impact on their *Triguṇa* score.

Thus it satisfies the hypothesis 2H₁, that is, “There is significant difference between the summative percentage scores of *Triguṇa* between professionals and Yoga āsana learners”.

Analysis *Yoga* Learners & *Yoga* Practitioners

	Y.L	Y.P
Mean	57.87	48.75
Variance	56.42	28.16
Observations	53	60
Hypothesized Mean Difference	0	
df	92	
t Stat	7.362	
P(T<=t) two-tail	0.000	
t Critical two-tail	1.986	

Table 8.4.8: t-Test of *Yoga* Learners & *Yoga* Practitioners

From the above table it is inferred that mean value of *Yoga* Learners (57.87) and mean value for *Yoga* practitioners differed marginally. At 5% level of significance the t- calculated value is 7.362, which is more than the critical value of 1.980 for 2-tail test. Hence it is accepted that there is significant difference between the summative percentage scores of *Triguṇa* in *Yoga* Learners and *Yoga* Practitioners.

Conclusion:

From the results of the above test, it is evident that there is significant difference in the summative percentage scores of *Triguṇa* for learners of *Yogāsanas* and regular practitioners of *Yogāsanas* (for more than two years). Hence it can be concluded that the practicing of *Yoga* have an impact on their *Triguṇa* score.

Thus it satisfies the hypothesis 3H₁, that is, “Practice of *Yoga* asana significantly reduces the summative percentage *Triguṇa* scores”.

SUMMARY:

From the above analysis of results it can be concluded that the summative percentage scores of *Triguṇa* were effective in identifying and measuring the expected scores of selected types of personalities through acceptance of stated sub hypotheses.

Hence it satisfies the hypothesis H₁, that is, “It is possible to quantify and differentiate different individuals based on *Triguṇa* metric of personality”.

Thus it validates the newly developed comprehensive personality model using *Triguṇa* concept of *Sāṃkhya* philosophy.