CHAPTER – 6

DATA ANALYSIS

The feedback of respondents of the questionnaire containing 48 questions, as mentioned in earlier chapter (Chapter-8) has been subjected to necessary analysis as done in this chapter to study the reliability and normality tests.

6.1 Reliability Test

The reliability of the Scale which captures 12 dimensions is tested with the help of Cronbach's alpha. SPSS output of Reliability Test results are shown in Table 9.1.

Table 6.1: Reliability Statistics

A. Case Processing Summary

		N	%
Cases	Valid	350	100.0
	Excluded[a]	0	.0
	Total	350	100.0

Reliability Statistics

Cronbach's Alpha	N of Items
.924	12

B: Item-Total Statistics

Dimensions	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Cronbach's Alpha if Item Deleted
D1	166.7771	255.939	.912
D2	166.8714	305.448	.943
D3	166.1029	258.717	.913
D4	166.8457	260.417	.914
D5	167.1371	268.004	.914
D6	167.4000	273.135	.922
D7	167.0029	268.776	.916
D8	167.4229	261.414	.911
D9	167.5229	275.494	.917
D10	166.8200	271.351	.921
D11	166.8343	256.219	.912
D12	166.5200	265.528	.915

C: ANOVA

		Sum of Squares	df	Mean Square	F	Sig
Between People		9225.119	349	26.433		
Within People	Between Items	619.550	11	56.323	28.099	.000
	Residual	7694.950	3839	2.004		
	Total	8314.500	3850	2.160		
Total		17539.619	4199	4.177		

Grand Mean = 15.1762

Part A of Table 9.1 shows that Cronbach's Alpha for the Scale including 350 valid cases is 0.942 which is above 0.90. Therefore, the scale is highly reliable. Part B shows that if item i.e., any dimension D1 or D2 or D3 is deleted the scale mean and variance remains stable if item is deleted. The Cronbach alpha for the scale if one item is deleted also shows reliable (> 0.90) for each case. ANOVA output given in Part C of Table 9.1 shows that test result is significant (< 0.01) at 1% level of significance. Therefore, there exist a significant difference across the dimensions of the scale, i.e., all the dimensions are independent in nature. It reflects that the scale used for the study is highly reliable.

6.2 Test of Normality for Dimensions

Normality is an important property of coming to a conclusion through parametric tests. We would like to verify whether the dimension data are following the normality or not with the help of Shapiro-Wilk test. The test result obtained using SPSS 22 Version is given in Table 9.2. Test Statistic values and corresponding significance values for each dimension exhibits that all the dimensions are normally distributed (P-value is significant at 1% level of significance).

Table 6.2: Test of Normality

Dimensions	Shapiro-Wilk		
	Statistic	df	Sig.
D1	.930	350	.000
D2	.961	350	.000
D3	.917	350	.000
D4	.901	350	.000
D5	.875	350	.000
D6	.909	350	.000
D7	.910	350	.000
D8	.919	350	.000
D9	.873	350	.000
D10	.934	350	.000
D11	.937	350	.000
D12	.945	350	.000

6.3. Objective-wise Analysis

6.3.1 Analysis for Objective 1:

Our objective 1 (See Chapter 4) is to establish Mamata Banerjee as truly a successful charismatic leader. To achieve our research objective, we have considered a Null Hypothesis 1 ($H1_0$) which states that 'Traits reflect that Mamata Banerjee is a successful charismatic leader'.

Let us verify the objective with the help of descriptive statistics.

Descriptive Statistics

Table 9.3 provides the descriptive Statistics of the collected data for 12 dimensions.

Table 6.3 Descriptive Statistics for all 12 Dimensions

Dimensions		Statistic
1. Ability to Draw and Enjoy Support of Mass (D1)	Mean	15.3371
	Median	16.0000

		Variance	4.757
		Std. Deviation	2.18107
		Minimum	12.00
		Maximum	20.00
		Range	8.00
		Interquartile Range	4.00
		Skewness	.328
		Kurtosis	-.282
2.	Ability to Earn Devotion of Mass (D2)	Mean	15.2429
		Median	16.0000
		Variance	4.901
		Std. Deviation	2.21376
		Minimum	11.00
		Maximum	20.00
		Range	10.00
		Interquartile Range	2.00
		Skewness	.070
		Kurtosis	-.433
3.	Ability to Enjoy Admiration and Uninterrupted Trust of Mass (D3)	Mean	16.0114
		Median	16.0000
		Variance	4.447
		Std. Deviation	2.10876
		Minimum	12.00
		Maximum	20.00
		Range	8.00
		Interquartile Range	2.00
		Skewness	-.417
		Kurtosis	-.266
4.	Possession of High Value Sense towards Cause of People (D4)	Mean	15.2686
		Median	15.0000
		Variance	4.369
		Std. Deviation	2.09020
		Minimum	10.00
		Maximum	19.00
		Range	9.00
		Interquartile Range	2.00
		Skewness	-.585
		Kurtosis	.737
5.	Ability to Get Work Done as per Desire and Expectation (D5)	Mean	14.9771
		Median	15.0000
		Variance	3.214

		Std. Deviation	1.79287
		Minimum	12.00
		Maximum	20.00
		Range	8.00
		Interquartile Range	2.00
		Skewness	.959
		Kurtosis	1.415
6.	Ability to Influence Mass that They Perceive What Mass Leader Wants and Act Accordingly (D6)	Mean	14.7143
		Median	15.0000
		Variance	4.210
		Std. Deviation	2.05193
		Minimum	12.00
		Maximum	19.00
		Range	7.00
		Interquartile Range	3.00
		Skewness	.363
		Kurtosis	-.963
7.	What People Want and Consequently Able to Make People Perceive Leader's Sincerities to Satisfy Desire and Expectation of People (D7)	Mean	15.1114
		Median	15.0000
		Variance	3.532
		Std. Deviation	1.87935
		Minimum	11.00
		Maximum	20.00
		Range	9.00
		Interquartile Range	1.00
		Skewness	-.167
		Kurtosis	.910
8.	What People Want and Consequently Able to Make People Perceive Leader's Sincerities to Satisfy Desire and Expectation of People (D8)	Mean	14.6914
		Median	15.0000
		Variance	3.629
		Std. Deviation	1.90511
		Minimum	11.00
		Maximum	19.00
		Range	8.00
		Interquartile Range	3.00
		Skewness	.495
		Kurtosis	.291
9.	High Competence and Commitment Level (D9)	Mean	14.5914
		Median	15.0000
		Variance	2.569
		Std. Deviation	1.60280

	Minimum	11.00
	Maximum	20.00
	Range	9.00
	Interquartile Range	1.00
	Skewness	.795
	Kurtosis	2.765
10. Ability to Exercise Power and Authority as Per Demand of Situation and Need of Cause of Mass (D10)	Mean	15.2943
	Median	15.0000
	Variance	4.208
	Std. Deviation	2.05141
	Minimum	12.00
	Maximum	20.00
	Range	8.00
	Interquartile Range	4.00
	Skewness	.332
	Kurtosis	-.261
11. Ability of Leader to Exercise Transactional Functions (D11)	Mean	15.2800
	Median	16.0000
	Variance	4.706
	Std. Deviation	2.16944
	Minimum	11.00
	Maximum	19.00
	Range	8.00
	Interquartile Range	3.00
	Skewness	-.328
	Kurtosis	-.733
12. Ability of Leader to Exercise Transformational Functions (D12)	Mean	15.5943
	Median	16.0000
	Variance	3.938
	Std. Deviation	1.98446
	Minimum	11.00
	Maximum	20.00
	Range	9.00
	Interquartile Range	2.00
	Skewness	-.077
	Kurtosis	.224

Table 9.3 shows that mean score for all the dimensions are ranging from 14.5 to 16 or at an average of 15.25 which is quite higher than the scale average 12 (Recall the

summated scale of each dimension ranges from 4 to 20 having an average of 12). Standard deviation is also low - roaming around 2. Therefore, the perceptual responses of the respondents are showing that all the charismatic leadership abilities of Mamata Banerjee is very high. To substantiate our statement, we can consider the interquartile range of the data which is varying between 1 to 4 which is remarkable low and reflect the internal consistency of data. Skewness and Kurtosis for each dimension is low and therefore validate the normality of each dimension. To verify our inference we have applied one sample t-test where Test value is 12 which is our mean scale value.

Table 6.4 One-Sample t- Test

	Test Value = 12					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
D1	28.625	349	.000	3.33714	3.1078	3.5664
D2	27.405	349	.000	3.24286	3.0101	3.4756
D3	35.588	349	.000	4.01143	3.7897	4.2331
D4	29.255	349	.000	3.26857	3.0488	3.4883
D5	31.066	349	.000	2.97714	2.7887	3.1656
D6	24.747	349	.000	2.71429	2.4986	2.9300
D7	30.973	349	.000	3.11143	2.9139	3.3090
D8	26.430	349	.000	2.69143	2.4911	2.8917
D9	30.248	349	.000	2.59143	2.4229	2.7599
D10	30.043	349	.000	3.29429	3.0786	3.5099
D11	28.285	349	.000	3.28000	3.0519	3.5081
D12	33.885	349	.000	3.59429	3.3857	3.8029

Our one sample t-test show that all the dimensions are significantly different from the mean value 12 ($p<0.01$) at 1% level of significance. Therefore, we can reject our Null Hypothesis 1 ($H1_0$) and conclude that -

Mamata Banerjee is truly a successful charismatic leader.

A descriptive analysis for objective 1 is also made in Chapter 7 (Challenges and Charisma of Mass Leader Mamata Banerjee).

6.3.2 Analysis for Objective 2: A descriptive analysis for objective 2 is made in Chapter 8 (Achievement Oriented Mass Leader Mamata Banerjee).

6.3.3 Analysis for Objective 3: A descriptive analysis for objective 3 is made in Chapter 9 (People Management Quality of Leader Mamata Banerjee).