

CHAPTER - IV

MOTIVATIONAL PROFILES : INTER COMPANY COMPARISON

4.1. INTRODUCTION

A comprehensive study has been made on different involvement scales, estimation of reliability and validity, different multivariate tools used in this study was presented in the previous chapter. But now we shall concentrate our study on measurement of salesperson's motivational profiles and investigating the relationship between different facets of motivation using mean scores in job dimensions, psychological states and leadership characteristics separately for the two groups of salespersons working in different two sectors namely private and public sector undertaking.

This chapter will particularly try to show whether it is possible to distinguish between the motivational profiles of the salespersons of two companies (i.e, E.I.P.W.L. Ltd. and L.I.C.I) on the basis of the average profiles of different components on the three facets i.e job dimensions, psychological states and leadership characteristics identified in the previous chapters. Moreover, the difference between the mean scores on other variables considered relevant for this study will also be presented along with mean motivational scores to unfold perceptual differences between the two category of salespersons. For this purpose, both parametric and nonparametric statistical tools will be applied to test the nature and extent of variations between the average characteristics of the two groups of salespersons.

4.2. MOTIVATIONAL PROFILES : A COMPARATIVE ASSESSMENT

In this chapter, different statistical tools have been used for comparing motivational components and other related variables of salespersons of two companies. In the first stage different parametric tests have been used and for reconciliation of the finding nonparametric tests have also been applied. We have taken basic assumption in computation that the probability distributions of the variables follow normal distribution and of same population.

(a) Test of difference of means

The results in tables (4.1 to 4.3) are self explanatory. It give us information about significant differences in various characteristics between the two groups of salespersons. So the problem here is to examine if two sample mean are equal or not under this test. It is hypothesised that there is no difference in the average scores of the characteristics of the two groups of salespersons. For most of the

variables considered in our study, significant differences have been observed. Almost considering all the variables of job dimensions, leadership characteristics and psychological states a peculiar picture evolved that the score of E.I.P.W.L salespersons are higher than the corresponding mean-scores of the L.I.C.I'S salesperson. But out of that leadership character variables of E.I.P.W.L has a greater impact on motivation than that of variables of job dimension and psychological states. Similarly in the case of L.I.C.I, variables of psychological states has a greater influence on motivation rather than variables of job dimensions and leadership characteristics.

An intensive study of motivational components i.e, job dimensions, leadership characteristics and psychological states, reveal some interesting results. The significant differences have been observed for all the dimensions of the motivational facets. The mean are sufficiently large for both the group of salespersons which is most probably due to the involvement of professional attitude. In the previous chapter we have seen the impact of job dimension on different motivational component. Job dimension has got some positive reactions on motivation. So in this section study revealed that the mean score of job skill variety of salespersons of E.I.P.W.L is much higher than the corresponding mean scores of salespersons of L.I.C.I . The same type of reaction have seen in case of task identity, task significance and job feedback also. But almost reverse results have seen in job autonomy and agent feedback variable of E.I.P.W.L salespersons. Where mean score of job autonomy and agent feedback variable of L.I.C.I salespeople is higher than the corresponding mean scores of E.I.P.W.L salespeople. From this result we come to an inference that most probably salespeople of E.I.P.W.L enjoy more variety in their job dimensions than L.I.C.I salespeople. Task identity and task significance conception of salesperson of E.I.P.W.L is more clear than the salesperson of L.I.C.I. The sales representative of E.I.P.W.L is more dynamic and conceptual, rather to say more professional about their job situation than L.I.C.I agents. But medical representative are not enjoying higher autonomy for taking decision about their working strategy, where as L.I.C.I agents can move on his own and have the right to took decision about his working policy. As a whole we can say that all the variables of job dimensions for both the category of salespersons react positively on motivational component.

Similar analysis can be made for the leadership characteristics based on the average score on various facets of motivation and other related variables. It is also interesting to note that leadership characteristics has a greater influence on

motivation than job dimension and psychological states of medical representative (E.I.P.W.L). The mean score of leadership characteristics variables of medical representative (E.I.P.W.L) is higher than corresponding mean score of L.I.C.I. agents.

The study revealed that the area managers of E.I.P.W.L are more supportive and trustworthy person and also create higher motivation than the development offices of L.I.C.I. In that situation, interaction within the area manager and representative facilitated way to the attainment of sale target (i,e Goal) and also create positive psychological influence for higher motivation. Development officers as supervisor are not interacted and facilitated the L.I.C.I. agents for creating high psychological influence towards motivation as area managers of E.I.P.W.L. do. Only exception is that mean score of hierarchical influence of L.I.C.I agents more than the Medical Representative of E.I.P.W.L. Area manager means supervisor of E.I.P.W.L. the company as well as development officer of L.I.C.I.

TABLE - 4.1
COMPARISON OF MEAN MOTIVATIONAL FACETS
AND OTHER RELATED VARIABLES [JOB DIMENSIONS]

VARIABLES	L.I.C.I (S)		E.L.P.W.L. (S)		Difference of mean
	MEAN	S.D.	MEAN	S.D.	
Job Skill Variety (x_1)	13.06	1.52	15.00	0.36	(-)1.94 ^a
Task identity (X_2)	15.09	2.65	16.29	1.02	(-)1.20 ^a
Task significance (X_3)	9.56	2.23	12.12	1.82	(-)2.56 ^b
Job autonomy (X_4)	11.46	1.03	10.64	2.34	0.82 ^a
Job feedback (X_5)	14.02	1.46	15.04	1.19	(-)1.02 ^b
Agent feedback (X_6)	16.35	2.06	13.85	2.52	2.50 ^a
S= salespersons, S.D= Standard deviation.					

a : $P < 0.01$,

b : $P < 0.05$,

TABLE - 4.2

**COMPARISON OF MEAN MOTIVATIONAL FACETS
AND OTHER RELATED VARIABLES [LEADERSHIP CHARACTERISTICS]**

VARIABLES	L.I.C.I (S)		E.L.P.W.L. (S)		Difference of mean
	MEAN	S.D.	MEAN	S.D.	
Trust and support (X ₁₀)	13.28	0.92	14.75	0.78	(-)1.47 ^b
Goal emphasis (X ₁₁)	9.92	1.15	11.52	1.21	(-)1.60 ^b
Interaction and Facilitation (X ₁₂)	10.23	2.81	12.62	0.98	(-)2.39 ^a
Psychological influence (X ₁₃)	11.08	1.34	15.02	1.24	(-)3.94 ^a
Hierarchical influence (X ₁₄)	8.42	2.31	7.10	2.42	1.32 ^b

S= Salespersons, S.D= Standard deviation.

a : P<0.01,

b : P<0.05,

Similar analysis can be made for testing psychological states based on the average score on various facets of motivation and other related variables. It is also interesting to note that mean score of experienced meaningfulness of work and knowledge of results of L.I.C.I agents have been observed higher values than corresponding value of medical representative. It may reveal that agents of L.I.C.I get more motivation. If they have the conception about meaning of the work. What they have done for the customer. But on the other hand the mean-score of experienced responsibility of work outcomes of E.I.P.W.L salespersons slightly higher than corresponding mean-score of L.I.C.I agents. It indicate that responsibility of work have greater influence on motivation for both group of salespersons.

TABLE - 4.3

**COMPARISON OF MEAN MOTIVATIONAL FACETS
AND OTHER RELATED VARIABLES (PSYCHOLOGICAL STATES)**

VARIABLES	L.I.C.I (S)		E.L.P.W.L. (S)		Difference of mean
	MEAN	S.D.	MEAN	S.D.	
Experienced meaningfulness of work (X ₇)	13.24	2.42	11.07	1.13	2.17 ^a
Experienced responsibility of work outcomes (X ₈)	12.47	1.45	13.28	2.03	(-)0.81 ^b
Knowledge of results (X ₉)	15.06	1.08	14.21	0.98	0.85 ^a

S= salespersons, S.D= Standard deviation.

a: P<0.01,

b: P<0.05.

It is now clear to us from the above discussion that the scores on motivational facets differ considerably for the two group of salesperson for this study. The analysis will be more effective and accurate if we relate other variables to predict effects of these variables on the behaviour of salespersons. In the following section a simple statistical tools named "Distance Analysis "has been employed to identify variables than can discriminate between two groups of salespersons.

Moreover, to test scale sensitivity it is necessary to investigate the extent to which ratings provided by a scale are able to discriminate between respondents who differ with respect to the construct being measured. Since the sensitivity of a scale is tied to its reliability and focuses specifically on its ability to detect subtle differences in attitudes being measured, an univariate distance analysis would be quite useful to examine whether differences in attitudes in score reflect real differences and not random fluctuations.

(b). DISTANCE ANALYSIS

We have seen in the previous section 4.2 (a) of our study that the mean score of antecedents of motivation differ for the two groups of salespersons. As a sequel to this, it would be logical to investigate the extent of distinction achieved by these variables. In this juncture it is essential to measure the degree of overlap between the two groups of salesperson with respect to different variables. "Mahalnobis standardised distance analysis" (P.C. Mahalnobis, 1936) model can be used for obtaining the probability of misclassification of object. In this method, the distance between two groups is define as being equal to $[d/s]$. Where "d" is the difference between the means for certain variable of the two groups and "s" being an estimate of their common standard deviation. If the variables are normally distributed and have identical variances in both groups and the size of the two samples are equal, there exist a simple relationship between $[d/s]$ and the chances of misclassification. Some values of this probability of misclassification for definite value of $[d/s]$ are reproduced below .

TABLE - 4.4
STANDARDISED DISTANCE AND CORRESPONDING PROBABILITIES

d/s	Probability of misclassification (%)
0.00	50
0.25	45
0.50	40
0.77	35
1.05	30
1.35	25
1.68	20
2.07	15
2.56	11
3.29	5
4.65	1

Source : Cited in Bhattacharya, D., Unpublished Ph.D dissertation, N.B.U. - 2001

The above figures show that the two groups are indistinguishable when [d/s] 0.000. Under this situation the probability of misclassification is maximum. The general relationship is that, if the difference between the means increases and the estimates of their common standard deviation decrease, the chance of misclassification also decreases.

The mean differences, common standard deviation and standardised distance between the two groups of salespersons are classified their position for the three components of motivation. Which are represented in table 4.5 to 4.7.

TABLE - 4.5
STANDARD DISTANCE BETWEEN L.I.C.I AND E.I.P.W.L SALESPERSONS
JOB DIMENSIONS ANALYSIS.

Variables	Difference (d)	Common standard deviation (s)	d/s
X ₁	1.94	1.55	1.25
X ₂	1.20	2.36	0.51
X ₃	1.44	2.21	0.65
X ₄	0.82	1.65	0.50
X ₅	1.02	1.46	0.70
X ₆	2.50	2.52	0.99

TABLE - 4.6**STANDARD DISTANCE BETWEEN L.I.C.I AND E.I.P.W.L SALESPERSONS
PSYCHOLOGICAL STATES ANALYSIS.**

Variables	Difference (d)	Common standard deviation (s)	d/s
X ₇	2.17	2.31	0.94
X ₈	0.81	1.80	0.45
X ₉	0.85	1.22	0.70

TABLE - 4.7**STANDARD DISTANCE BETWEEN L.I.C.I AND E.I.P.W.L SALESPERSONS
LEADERSHIP CHARACTERISTICS ANALYSIS.**

Variables	Difference (d)	Common standard deviation(s)	d/s
X ₁₀	1.47	1.12	1.31
X ₁₁	1.60	1.40	1.41
X ₁₂	2.39	2.61	0.92
X ₁₃	3.94	2.28	1.73
X ₁₄	1.32	2.43	0.54

The value of (d/s) presented in the above table clearly show that for a few variables, the distance between the two group of salespersons is quite significant. Most of all the variables have a (d/s) value greater than (0.50) indicating hereby nearly 35 % to 40% chance of misclassification. In some cases, the (d/s) ratio is greater than one which implies that the chances of misclassification would be 20% to 30%.

An analysis be can draw on the discriminating power of some variables. For eleven, out of fourteen variable, studied in three motivational facets possess a fairly good degree of discriminating power. Among various motivational facets, job skill variety, leader trust and support and psychological influence is found to be very strong and consistent discriminator for different motivational component. Since the average probability of misclassification ranges between 20% to 25 % [Table-4.8].

TABLE - 4.8

STANDARDISED DISTANCE AND CORRESPONDING PROBABILITIES OF THREE INVOLVEMENT FACETS OF MOTIVATIONAL COMPONENTS

Variables	d/s	Probability Misclassification (%)
X_1	1.25	25
X_2	0.51	40
X_3	0.65	35
X_4	0.50	40
X_5	0.70	35
X_6	0.99	30
X_7	0.94	30
X_8	0.45	40
X_9	0.70	35
X_{10}	1.31	25
X_{11}	1.14	30
X_{12}	0.92	30
X_{13}	1.73	20
X_{14}	0.54	40

From table 4.5 we came to know that most of the variables have on an average of 30% to 40 % probability of misclassification for job dimension. For variable job skill variety (X_1), we find that it can well discriminate the two groups of salespersons and the probability of misclassification was 25 %. As a whole we can say that all the variable of job dimension component of motivation found to be a good discriminator and their chance of misclassification was very high. Similar results have been found in psychological state and leadership characteristics also.

For example, in leadership characteristics, psychological influence variable (X_{13}) and trust and support variable (X_{10}) have on an average of 20 % to 25% probability of misclassification. They found to be a good discriminator and chance of misclassification was very high.

From that section we can conclude that the univariate distances between different variables for the two groups are quite significant. In general it may be mentioned at this stage that the findings of the distance analysis and test of

difference of means do not contradict each other. The motivational profiles of two groups of salesperson along with other related perceptual variables do show significant variation. Another alternative to test whether salespersons do really show significant variation with regard to various score on different motivational facets, it would be useful to employ a few non-parametric tests which are frequently employed under similar circumstances.

4.3 NON - PARAMETRIC STATISTICAL ANALYSIS

The statistical test described in this section require an important assumption to be met if they are to be correctly applied. This assumption is that population of data from which a sample or samples are drawn is normally distributed. These statistical tests allow considerable latitude and deviations from normality. The central limit theorem, for instance, allows the normality assumption to be by passed for samples sufficiently large. If the distribution from which a sample is drawn is badly skewed or is otherwise grossly non-normal, however, for smaller samples these statistical tests will not yield meaningful result.

A second assumption upon which most of the tests is that meaningful sample statistics, such as the mean and standard deviation, can be derived from the sample (s) and used to estimate the corresponding population parameters. Data which are nominal in nature or ordinal (ranked) do not yield such meaningful results.

Statisticians have devised alternate procedures which can be used to test hypotheses about data which are non- normal or for which meaningful sample statistics cannot be calculated. Since these test do not depend on the shape of the distribution, they are called distribution free tests. These tests do not depend upon the population parameters, such as the mean and the variance, they are also called nonparametric tests. Particularly in psychological or in marketing research studies, where the basic assumptions underlying the parametric tests are not valid or one does not have the knowledge of the distribution of the population parameter being tested.

In our present study, the data received from different characteristics of two independent samples are unequal in size. Several nonparametric tests are there to study whether two independent groups differ in central tendencies. Here we have applied two very popular nonparametric methods viz. the Mann- Whitney - U test and the median test to support our earlier findings which have been based on parametric test.

(a). A rank sum test: the Mann - Whitney U- test

The Mann-Whitney-U test helps us to determine whether two samples have come from identical population. If it is true that the samples have come from the same population it is reasonable to assume that the means of the ranks assigned to the values of the two samples are more or less the same. It is a nonparametric substitute for the parametric "t" test. Two basic conditions must have to be secure for application of the U-test.

i.e, data have been obtained :

- (1) On ordinal measurement.
- (2) in terms of ranks.

The data which have been obtained in the form of score, should be converted into rank without loss of information for application of the Mann- Whitney U test. The sample of our study have been categories from two population namely:-

- (a) Salespersons belonging to life insurance corporation of India (a Govt. sector)
- (b) Salespersons belonging to East India Pharmaceutical (a Private. sector)

The sample observations of Mann - Whitney test for the three component of motivational facet are presented in table (4.9 to 4.14). It is interesting to observe that the result of these tests have a close resemblance with the results of parametric test carried out in the previous sections.

TABLE - 4.9
A RANK SUM (MANN-WHITNEY STATISTIC) TEST OF
JOB DIMENSION VARIABLES FOR L.I.C.I. SALESPERSONS.

VARIABLES	U-STATISTIC	Z-VALUES
X ₁	2749	(-)2.2035 ^a
X ₂	2154	(-)4.0739 ^a
X ₃	3106	(-)1.0814 ^b
X ₄	1556	(-)5.9537 ^a
X ₅	1923	(-)4.8001 ^a
X ₆	1626	(-)5.7337 ^a

a : p<0.001;

b : p<0.01.

TABLE - 4.10**A RANK SUM (MANN-WHITNEY STATISTIC) TEST OF PSYCHOLOGICAL STATES VARIABLES FOR L.I.C.I. SALESPERSONS.**

VARIABLES	U-STATISTIC	Z-VALUES
X ₇	1023	(-)7.6292 ^a
X ₈	924	(-)7.9404 ^a
X ₉	1335	(-)6.6484 ^a

TABLE - 4.11**A RANK SUM (MANN-WHITNEY STATISTIC) TEST OF LEADERSHIP CHARACTERISTICS VARIABLES FOR L.I.C.I. ALESPERSONS.**

VARIABLES	U-STATISTIC	Z-VALUES
X ₁₀	2550	(-)2.8291 ^b
X ₁₁	1870	(-)4.9667 ^a
X ₁₂	1642	(-)5.6834 ^a
X ₁₃	1126	(-)7.3054 ^b
X ₁₄	2722	(-)2.2884 ^b

TABLE - 4.12**A RANK SUM (MANN-WHITNEY STATISTIC) TEST OF JOB DIMENSION VARIABLES FOR E.I.P.W.L. SALESPERSONS**

VARIABLES	U-STATISTIC	Z-VALUES
X ₁	2150	(-) 4.0865 ^a
X ₂	3056	(-)1.2385 ^b
X ₃	3142	(-)0.9682
X ₄	1423	(-)6.3706 ^a
X ₅	1945	(-)4.7309 ^a
X ₆	1757	(-)5.3219 ^a

a : p<0.001;

b : p<0.01

TABLE - 4.13**A RANK SUM (MANN-WHITNEY STATISTIC) TEST OF PSYCHOLOGICAL STATES VARIABLES FOR E.I.P.W.L. SALESPERSONS.**

VARIABLES	U-STATISTIC	Z-VALUES
X_7	1678	(-) 5.5702 ^a
X_8	2295	(-) 3.6307 ^a
X_9	1756	(-) 5.3250 ^a

TABLE - 4.14**A RANK SUM (MANN-WHITNEY STATISTIC) TEST OF LEADERSHIP CHARACTERISTICS VARIABLES FOR E.I.P.W.L. SALESPERSONS.**

VARIABLES	U-STATISTIC	Z-VALUES
X_{10}	2230	(-)3.8350 ^a
X_{11}	1607	(-)5.7934 ^a
X_{12}	1424	(-)6.3687 ^a
X_{13}	1275	(-)6.8370 ^a
X_{14}	2532	(-)2.8876 ^b

a : $p < 0.001$;

b : $p < 0.01$

In the sample observations, a large number of ties were encountered while converting scores on several variables into ranks. Another nonparametric test like the median test should be employ before giving any comment on the confirmation of the findings of Mann-Whitney tests with the results of parametric test.

In our study the primary benefit of employing the median test is that ties can be avoided. The researcher should very careful about the application of median test. Because several scores may fall right at the combined median. So in that situation we have two specific options.

- (1) The scores may be divided into two group i.e. (a) scores that exceed the median and (b) scores that do not.
- (2) If n is large, and only a few cases may be dropped. We preferred the first method while performing this test according to Sigeland Castellan, Jr (1988).

(b). THE MEDIAN TEST.

The information received from median test is likely that two independent group, not necessarily of the same size have been drawn from population with the same median. The median test also examines the null hypothesis like Mann-Whitney U test. The hypothesis are as follows.

- (1) Two independent samples are from identical population against the alternative hypothesis.
- (2) Independent samples have different locations parameters and a non-directional hypothesis.

Table 4.15 to 4.20 give us information about the findings of median test based on the value of computed χ^2 support. The outcome of the nonparametric Mann - Whitney test in the previous section may be consider with the findings of parametric test. It ravel that a significant variation have been observed between the median score for the different motivational facets and other perceptual variables of different motivational components.

TABLE - 4.15
MEDIAN TEST RESULTS OF
JOB DIMENSION VARIABLES FOR L.I.C.I. SALESPERSONS

VARIABLES	COMBINED MEDIAN	χ^2 STATISTICS
X_1	14.00	16.17 ^a
X_2	11.00	9.52 ^b
X_3	12.00	10.67 ^c
X_4	10.00	34.21 ^a
X_5	9.50	19.24 ^a
X_6	8.00	26.32 ^a

TABLE - 4.16
MEDIAN TEST RESULTS OF
PSYCHOLOGICAL STATES L.I.C.I. SALESPERSONS

VARIABLES	COMBINED MEDIAN	χ^2 STATISTICS
X_7	15.00	6.86 ^a
X_8	12.00	6.25 ^a
X_9	10.00	4.36 ^b

a : $p < 0.001$, b : $p < 0.01$, c : $p < 0.05$; d : $p < 0.10$.

TABLE - 4.17
MEDIAN TEST RESULTS OF
LEADERSHIP CHARACTERISTICS L.I.C.I. SALESPERSONS

VARIABLES	COMBINED MEDIAN	χ^2 STATISTICS
X_{10}	8.00	7.56 ^a
X_{11}	10.00	12.29 ^b
X_{12}	7.00	12.80 ^b
X_{13}	4.00	0.66
X_{14}	6.00	3.74 ^d

TABLE - 4.18
MEDIAN TEST RESULTS OF
JOB DIMENSION VARIABLES FOR E.I.P.W.L's SALESPERSONS

VARIABLES	COMBINED MEDIAN	χ^2 STATISTICS
X_1	16.00	18.56 ^c
X_2	14.00	42.12 ^a
X_3	16.00	30.46 ^b
X_4	18.00	24.04 ^b
X_5	10.00	16.24 ^c
X_6	12.00	10.67 ^a

TABLE - 4.19
MEDIAN TEST RESULTS OF
PSYCHOLOGICAL STATES E.I.P.W.L's SALESPERSONS

VARIABLES	COMBINED MEDIAN	χ^2 STATISTICS
X_7	16.00	38.02 ^a
X_8	12.00	14.08 ^d
X_9	10.00	7.46 ^a

a:p<0.001 , b:p<0.01 , c:p<0.05 , d:p<0.01.

TABLE - 4.20
MEDIAN TEST RESULTS OF
LEADERSHIP CHARACTERISTICS E.I.P.W.L'S SALESPERSONS

VARIABLES	COMBINED MEDIAN	χ^2 STATISTICS
X_{10}	12.00	14.67 ^a
X_{11}	10.00	10.39 ^b
X_{12}	9.00	12.38 ^a
X_{13}	8.00	15.38 ^a
X_{14}	8.00	7.56 ^a

a : $p < 0.001$,

b : $p < 0.01$,

4.4. FINDINGS AND INTERPRETATION

The analysis provided in tables 4.1 to 4.3 [Section 4.2(a)] help to identify the variables that can statistically show significant differences in various characteristics between the two groups of salespersons. The results presented in different tables are self explanatory. Significant differences have been observed for most of the variables considered in our study.

A careful study of the variable wise score also reveal some peculiar results. For example, In case of job dimensions, skill variety (x_1) mean are sufficiently large for both the group of salespersons. Which is due to the eagerness of the salesperson not doing same type of work day by day . We think that it is overall sentiment of working people not doing monotonous type of work. The mean score of skill variety (x_1) of salespersons of E.I.P.W.L. is 15.00 higher than the mean score of L.I.C.I. salespersons i,e 13.06. It indicate that the professional attitude of salespersons of E.I.P.W.L. are more than that of L.I.C.I. salespersons. Similarly, mean score of task identify and task significance of salespersons of E.I.P.W.L. are 16.29 and 12.12 respectively. Which is higher than the corresponding results of L.I.C.I. salespersons i,e. 15.09 and 9.56 respectively. They are more reactive on motivational components of both the cases. The medical representative are smart and have the better knowledge about their selling products than the salespersons of L.I.C.I. But salespersons of L.I.C.I. enjoy more freedom than salespersons of E.I.P.W.L. which creat some negative reaction on motivational component of salesperson of E.I.P.W.L. than L.I.C.I. salesperson. The mean score of related variables of leadership

characteristics of E.I.P.W.L'S salespersons are higher than the mean score of same of L.I.C.I. salespersons. Which Communicate important dimensions that the leadership characteristics has greater impact on motivation of salespersons of E.I.P.W.L. than salespersons of L.I.C.I. One of the important reason is that the leader of the E.I.P.W.L. i.e, Area Manager, was a promoted person from salesrepresentative and have the knowledge about various problems of sales persons. So, he can put his best effort for overcoming the different problems of salespersons and get motivate them. But in case of L.I.C.I. the leader i.e. Development Officer is not a promoted people from L.I.C.I. Agents. He is directly recruited employee of the company. So, he is not conversant with the various problem faced by the agents of L.I.C.I. But by nature they cannot put their best efforts to the motivational component of L.I.C.I. salespersons.

As a whole we can conclude from section (4.2) in this chapter that all the relative variables i.e. job dimensions, leadership characteristics and psychological states are created more positive reaction of motivation. If we can rearrange and reconstruct both job setting and leadership style with the changing philosophy of the dynamic business world. The salespersons of both the companies can motivate better way.

In the section 4.2(a) we used to measure the degree of overlap between the two groups of salesperson with respect to different variables by "Mahalanobis standardised distance analysis". It is used for obtaining the probability of misclassification of object. From this section we can conclude that different motivational facets i.e. skill variety, task significance, leader trust & support and psychological influence etc. are found to be very strong and consistent discriminator for motivational component and the univariate distances between different variables for the two groups are quite significant. It is also important that the findings of the distance analysis and test of difference of means do not contradict each other. A few nonparametric tests viz. a rank sum-test, the Mann - Whitney- U-test and median test, have been employed for showing significant variation with regard to various score on different motivational facets (Section 4.3). With the Mann-Whitney U-test, we can test the null hypothesis $\mu_1 = \mu_2$ without assuming whether the population sampled have roughly the shape of normal distribution. This test helps us to determine whether two samples have come from identical population. If it is true that the samples have come from the same population, it is reasonable to assume that the means of the ranks assigned to the values of the two samples are more or less the same. The alternative hypothesis is that the means of the population are not equal and if this is the case, most of the smaller rank will go to the values of one

sample. While most of the higher ranks will go to those of the other sample. For small samples, if both the two sample sizes are less than 10 (some statisticians say 8) special tables must be used, and if U is smaller than the critical value. Null hypothesis can be related to the standard normal curve by the Z -test.

In using this statistics, it is unimportant whether the larger or smaller value obtained from the formulae is used. The values of Z is numerically equal, but opposite in sign. It is noted that tied observations are again given the mean of common ranks. The various statistical tests discussed in the previous section are based on the assumption that we are dealing with random sample. However, there are many situations in which it is difficult to decide this assumption is justifiable. This is particularly true when we have little or no control over the selection of the data.

However, while converting scores on several variables into ranks a large number of ties were encountered in the sample observations. When tied scores occur, we gave each of the tied observations the average of the ranks that would have been assigned had no ties occurred. As such, before commenting specifically on whether the findings of the Mann - Whitney tests confirm the results of the parametric test it would be prudent to employ other nonparametric test like the median test.

In the section 4-3(b) we deals with the two sample median test like the U -test. The median test is also meant for the null hypothesis that two independent samples are from identical distributions against the alternative that they have different location parameters (medians). The alternative may also be one-sided (meaning that the median of one distribution is greater than that of the other). The test may be used with data presented in at least an ordinal scale.

4.5. CONCLUSION

In this chapter we try empirically to carried out the possibility to discriminate between the two groups of salespersons of two company on the basis of motivational facets i.e, job dimension, psychological states and leadership characteristic.

It emerge clearly from the findings of this chapter that the average score of E.I.P.W.L.'S salespersons are higher than the corresponding mean-scores of L.I.C.I 'S salespeople. Among various motivational facets, job skill variety, leader trust and support and psychological influence is found to be very strong and consistent

discriminator for different motivational component.

From the findings of the univariate analysis in this chapter we can conclude that the distance between different variables for two group of salespersons are quite significant. And also identify the disparity between various antecedents of motivation and other perceptual variables of the two groups of salespersons.

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