

Chapter 4

Analysis and Interpretation

4.0 Introduction:

In this research work, the main purpose of the researcher is to make the analysis of the level of satisfaction of the employees working in the diesel engine manufacturing factories in Rajkot District. For this purpose, the researcher has selected 32 factories working in Rajkot District. In order to get the responses of the employees working in these factories, the researcher has designed a questionnaire. This questionnaire is divided into four parts viz.,

Part – 1 – Personal Details

Part – 2 – General Information

Part – 3 – Questions Related to Statutory Welfare Measures

Part – 4 – Questions Related to Non-statutory Welfare Measures

Part – 1 of the questionnaire includes the personal details of the respondents such as name, address, gender, age, education, experience, etc. These details are used to measure the effects or differences in the level of satisfaction of the respondents from the statutory and non-statutory welfare facilities.

Part – 2 of the questionnaire includes the details on general information. In this part, the researcher has tried to collect the information about the awareness and availability of the statutory and non-statutory welfare facilities. To get the responses about awareness and availability of these facilities, the researcher has used dichotomous questions.

Part – 3 of the questionnaire includes the questions related to statutory welfare facilities. To get the responses related statutory welfare, the researcher has used 16 questions i.e. Question Number - 12 to Question Number - 27. Out of these 16 questions, 12 questions i.e. Question Number - 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 25, 27 are questions based on Likert Scale Analysis

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using Five Point Scaling. There are 04 questions i.e. Question Number - 20, 22, 24, 26 are dichotomous questions which are meant to ask about the availability or non-availability of the respective facilities.

Part – 4 the last part of the questionnaire includes the questions related to non-statutory welfare facilities. To get the responses related to non-statutory welfare facilities, the researcher has used 10 Questions i.e. Question Number – 28 to Question Number – 37. Out of these 10 questions, 05 questions i.e. Question Number – 29, 31, 33, 35, 37 are questions based on Likert Scale Analysis using Five Point Scaling. There are 05 questions i.e. Question Number - 28, 30, 32, 34, 36 are dichotomous questions which are meant to ask about the availability or non-availability of the respective non-statutory facilities.

In the following parts of this chapter, the analysis of the responses given by the respondents for all these parts of questionnaire is presented.

4.1 Analysis of General Information (Part – 2 of the Questionnaire):

In this part of the questionnaire, the purpose of the researcher is to get information about the awareness of the employees regarding the availability or non-availability of the welfare facilities in the organization.

Table – 4.1					
Table Showing Responses to Awareness and Availability of Welfare Facilities					
Q. No.	Question	Responses (Absolute)		Responses (in %)	
		Yes	No	Yes	No
8	Are you aware of the Statutory Welfare Facilities to be provided to the employees by the employers?	1124	00	100	00
9	Are you provided with such Statutory Welfare Facilities by your employer?	1124	00	100	00
10	Are you aware of the Non-statutory Welfare Facilities to be provided to the employees by the employers?	1124	00	100	00
11	Are you provided with such Non-statutory Welfare Facilities by your employer?	1124	00	100	00

(See Appendix – 5 for responses to Dichotomous Questions)

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From the above given Table 5.1, it is seen that in the response of Question Number 8, all the 1124 respondents i.e. 100% respondents are aware of statutory welfare facilities to be provided to them. From the informal discussion with the respondents, the researcher came to know that all the respondents are not well educated. In spite of that, they are aware of the statutory welfare facilities. It can be concluded that they get information about this from the senior workers or from the discussion with the management personnel.

In the response of Question Number 9, all the 1124 respondents i.e. 100% have responded “Yes”. It means that they are provided with the statutory welfare facilities. But during the informal discussion with the respondents, the researcher came to know that in all the firms all the statutory services are not provided. According to the Labor Welfare Act, there are around 12 statutory facilities to be provided to the employees, but it is not feasible or possible for all the firms to provide all these facilities to the employees.

It is seen that in the response of Question Number 10, all the 1124 respondents i.e. 100% respondents are aware of non-statutory welfare facilities to be provided to them. From the informal discussion with the respondents, the researcher came to know that all the respondents are not well educated. In spite of that, they are aware of the non-statutory welfare facilities. It can be concluded that they get information about this from the senior workers or from the discussion with the management personnel. Some of the statutory facilities are provided to the employees and that is why they have responded positively to this question.

In the response of Question Number 11, all the 1124 respondents i.e. 100% have responded “Yes”. It means that they are provided with the non-statutory welfare facilities. But during the informal discussion with the respondents, the researcher came to know that in all the firms all the non-statutory services are not provided. According to the Labor Welfare Act, there are around 5 non-statutory facilities to be provided to the employees, but it is not feasible or possible for all the firms to provide all these facilities to the employees. Some

of the non-statutory facilities are provided to the employees and that is why they have responded positively to this question.

4.2 Analysis of Employees' Satisfaction from Statutory Facilities (Part – 3 of the Questionnaire):

An organization provides several Labor Welfare Facilities to its employees. In general, these facilities can be classified as Statutory Welfare Facilities and Non-statutory Welfare Facilities. For the happy and healthy work life and a good employer-employee relationship, such welfare facilities are required. For the welfare of workers, each organization should provide such facilities to the workers working with it. The Statutory facilities include the facilities like facility of pure drinking water, sitting arrangement, wash room facilities, facilities for changing and washing clothes, facilities for storing the clothes, first aid facilities, facilities for lunch rooms, rest rooms and canteens, maternity leave, facilities for crèche, facilities for education of the children of workers, etc. In this research work, the researcher has tried to study the satisfaction of employees from the welfare facilities provided to them by their employers. To execute this research work, the researcher has selected the Diesel Engine Industry of Rajkot District. The researcher has randomly selected 32 firms that are engaged with diesel engine manufacturing activities in Rajkot. For the purpose of analyzing the level of satisfaction from the welfare facilities, the researcher has prepared a questionnaire. These questionnaires were distributed among the employees engaged in the firms of diesel engine. The employees filled their responses in these questionnaires.

In Part – 3 of the questionnaire, the researcher has included 16 questions i.e. Question Number - 12 to Question Number - 27. Out of these 16 questions, 12 questions i.e. Question Number - 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 25, 27 are questions based on Likert Scale Analysis using Five Point Scaling. There are 04 questions i.e. Question Number - 20, 22, 24, 26 are dichotomous questions which are meant to ask about the availability or non-availability of the respective facilities.

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The responses given by the employees to the Questions using Likert Scale were categorized into five categories i.e. “Highly Satisfied”, “Satisfied”, “Average”, “Dissatisfied” and “Highly Dissatisfied”.

These responses given by the employees were assigned the weight from positive to negative. The weights are shown in the following table.

Response	Weight
Highly Satisfied	5
Satisfied	4
Average	3
Dissatisfied	2
Highly Dissatisfied	1

The responses given by the respondents are multiplied with the respective weight. This gave a consolidated response of all the respondents and on the bases of that the Satisfaction Index is derived.

To make the statistical analysis, the researcher has used MS Excel and IBM SPSS. With the use of MS Excel and IBM SPSS, the researcher has applied ANOVA and multiple comparisons using Post-hoc based on Tukey’s HSD.

In this section, analysis of satisfaction from Statutory Facilities is presented by the researcher. To come to know about the responses, weight and satisfaction index, a table showing the satisfaction index is prepared. **(See Appendix 3 for the responses, weight and satisfaction index for statutory welfare facilities)**

A) Analysis of Satisfaction from Statutory Facilities Based on Gender:

In this part, the researcher has tried to analyse the differences in the level of satisfaction due to gender of employees from statutory facilities.

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Null Hypothesis (H₀): There is no significant difference in the level of satisfaction due to gender from statutory facilities among the selected sample of employees.

Alternative Hypothesis (H₁): There is significant difference in the level of satisfaction due to gender from statutory facilities among the selected sample of employees.

Table – 4.3
A Table Showing Descriptive Statistics Based on Gender of Respondents

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
MALE	1055	33.37	3.081	.095	33.19	33.56	25	43
FEMALE	69	37.75	3.533	.425	36.90	38.60	26	46
Total	1124	33.64	3.282	.098	33.45	33.83	25	46

Table – 4.4
A Table Showing Analysis of Variances

	Sum of Squares	D.o.F.	Mean Square	F	Sig.
Between Groups	1243.632	1	1243.632	128.590	.000
Within Groups	10851.159	1122	9.671		
Total	12094.790	1123			

The computed value of F is 128.590 and significant value for this is 0.00, as per the prescribed parameters, the null hypothesis is accepted if significant value is greater than 0.05 @ 5% level of significance. Therefore, in the said case, the null hypothesis is rejected. So the researcher may conclude that, there

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is significant level of difference in the level of satisfaction due to gender of the employees selected under the sample.

To analyse the source of variation, in case of null hypothesis is rejected, it is necessary to perform multiple comparison using Post-hoc based on Tukey's HSD. But in this case, the gender is classified into only two sub groups viz. Male and Female, it is not possible to make the internal comparison, because, to perform internal comparison, more than two sub groups are required, which are not available here.

B) Analysis of Satisfaction from Statutory Facilities Based on Experience:

In this part, the researcher has tried to analyse the differences in the level of satisfaction due to experience of employees from statutory facilities.

Null Hypothesis (H₀): There is no significant difference in the level of satisfaction due to experience from statutory facilities among the selected sample of employees.

Alternative Hypothesis (H₁): There is significant difference in the level of satisfaction due to experience from statutory facilities among the selected sample of employees.

Table – 4.5
A Table Showing Descriptive Statistics Based on Experience of Respondents

Experience (in years)	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
< 2 Years	108	33.17	3.750	.361	32.45	33.88	26	41
2-5 Years	494	33.38	3.174	.143	33.10	33.66	25	46
5-10 Years	262	33.87	3.397	.210	33.45	34.28	25	44
>10 Years	260	34.11	3.095	.192	33.73	34.49	25	45
Total	1124	33.64	3.282	.098	33.45	33.83	25	46

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Table – 4.6
A Table Showing Analysis of Variances

	Sum of Squares	D.o.F.	Mean Square	F	Sig.
Between Groups	129.733	3	43.244	4.048	.007
Within Groups	11965.057	1120	10.683		
Total	12094.790	1123			

The computed value of F is 4.048 and significant value for this is 0.007, as per the prescribed parameters, the null hypothesis is accepted if significant value is greater than 0.05 @ 5% level of significance, otherwise it is rejected. Therefore, in the said case, the null hypothesis is rejected. So the researcher may conclude that, there is significant difference in the level of satisfaction due to experience of the employees selected under the sample.

To analyse the source of variation, in case of null hypothesis is rejected, it is necessary to perform multiple comparison using Post-hoc based on Tukey's HSD.

Table – 4.7
A Table showing Multiple Comparisons using Post-hoc Based Tukey's HSD

(I) EXP.	(J) EXP.	Mean Diff. (I-J)	Std. Error	Sig.	95% Confidence Interval		Is the difference significant ?
					Lower Bound	Upper Bound	
<2 YEARS	2-5 YEARS	-.210	.347	.931	-1.10	.68	No
	5-10 YEARS	-.700	.374	.241	-1.66	.26	No
	>10 YEARS	-.945	.374	.057	-1.91	.02	No
2-5 YEARS	<2 YEARS	.210	.347	.931	-.68	1.10	No
	5-10 YEARS	-.490	.250	.203	-1.13	.15	No
	> 10 YEARS	-.735*	.250	.018	-1.38	-.09	Yes

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5-10 YEARS	<2 YEARS	.700	.374	.241	-.26	1.66	No
	2-5 YEARS	.490	.250	.203	-.15	1.13	No
	>10 YEARS	-.245	.286	.827	-.98	.49	No
> 10 YEARS	< 2 YEARS	.945	.374	.057	-.02	1.91	No
	2-5 YEARS	.735*	.250	.018	.09	1.38	Yes
	5-10 YEARS	.245	.286	.827	-.49	.98	No
*. The mean difference is significant at the 0.05 level.							

The above given table shows that there is no significant difference in the level of satisfaction due to experience when the researcher compared the satisfaction of the employees having the experience of less than 2 years with the satisfaction of the employees having the experience of 2 to 5 years, 5 to 10 years, and more than 10 years. This happens so, because in the initial years of the job, the employees are not that much demanding in terms of welfare facilities and they seem to be satisfied with whatever is provided to them.

The same is the case when comparison is made among the employees having 5 to 10 years of experience and the employees having experience of less than 2 years, 2 to 5 years and more than 10 years.

There can be seen a significant difference in the level of satisfaction when the comparison is made between the employees having the experience of 2 to 5 years and the employees having the experience of more than 10 years. This difference can be seen because as the employees become familiar with an organization and as he or she passes more years in an organization, he or she becomes more demanding and level of satisfaction decreases. So there arrives the difference in the level of satisfaction for them.

Table – 4.8			
A Table Showing Index for Statutory Facilities			
EXPERIENCE	N	Subset for alpha = 0.05	
		1	2
<2 YEARS	108	33.17	

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2-5 YEARS	494	33.38	33.38
5-10 YEARS	262	33.87	33.87
> 10 YEARS	260		34.11
Sig.		.124	.096
Means for groups in homogeneous subsets are displayed.			
a. Uses Harmonic Mean Sample Size = 211.121.			
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.			

The above given table shows that the level of satisfaction is highest among the employees having the experience of more than 10 years. The average of their satisfaction is 34.11. The employees having the experience of 5 to 10 years have the average satisfaction of 33.87 and the employees with the experience of 2 to 5 years have the average satisfaction of 33.38. The lowest level is the employees in the group of experience less than 2 years.

C) Analysis of Satisfaction from Statutory Facilities Based on Age:

In this part, the researcher has tried to analyse the differences in the level of satisfaction due to age of employees from statutory facilities.

Null Hypothesis (H₀): There is no significant difference in the level of satisfaction due to age from statutory facilities among the selected sample of employees.

Alternative Hypothesis (H₁): There is significant difference in the level of satisfaction due to age from statutory facilities among the selected sample of employees.

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Table – 4.9
A Table Showing Descriptive Statistics Based on Age of Respondents

Years	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
18-25	94	33.47	3.778	.390	32.69	34.24	26	41
25-32	432	33.19	3.087	.149	32.89	33.48	26	46
32-39	219	33.48	3.043	.206	33.07	33.88	25	43
39-46	129	33.71	3.371	.297	33.13	34.30	25	42
46-53	195	34.72	3.473	.249	34.23	35.21	27	46
53-60	55	34.16	3.066	.413	33.33	34.99	28	41
Total	1124	33.64	3.282	.098	33.45	33.83	25	46

Table – 4.10
A Table Showing Analysis of Variance

	Sum of Squares	D.o.F.	Mean Square	F	Sig.
Between Groups	344.927	6	57.488	5.465	.000
Within Groups	11749.863	1117	10.519		
Total	12094.790	1123			

The computed value of F is 5.465 and significant value for this is 0.000, as per the prescribed parameters, the null hypothesis is accepted if significant value is greater than 0.05 @ 5% level of significance, otherwise alternative hypothesis is accepted. Therefore, in the said case, the null hypothesis is rejected. So the researcher may conclude that, there is significant level of

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difference in the level of satisfaction due to age of the employees selected under the sample.

To analyse the source of variation, in case of null hypothesis is rejected, it is necessary to perform multiple comparison using Post-hoc based on Tukey's HSD.

Table – 4.11							
A Table showing Multiple Comparisons using Post-hoc Based Tukey's HSD							
(I) AGE	(J) AGE	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval		Is the difference significant?
					Lower Bound	Upper Bound	
18-25	25-32	.283	.369	.973	-.77	1.34	No
	32-39	-.011	.400	1.000	-1.15	1.13	No
	39-46	-.245	.440	.994	-1.50	1.01	No
	46-53	-1.250*	.407	.027	-2.41	-.09	Yes
	53-60	-.696	.550	.805	-2.27	.88	No
25-32	18-25	-.283	.369	.973	-1.34	.77	No
	32-39	-.294	.269	.884	-1.06	.47	No
	39-46	-.528	.325	.583	-1.46	.40	No
	46-53	-1.533*	.280	.000	-2.33	-.73	Yes
	53-60	-.978	.464	.284	-2.30	.35	No
32-39	18-25	.011	.400	1.000	-1.13	1.15	No
	25-32	.294	.269	.884	-.47	1.06	No
	39-46	-.234	.360	.987	-1.26	.79	No
	46-53	-1.238*	.319	.002	-2.15	-.33	Yes

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	53-60	-.684	.489	.728	-2.08	.71	No
39-46	18-25	.245	.440	.994	-1.01	1.50	No
	25-32	.528	.325	.583	-.40	1.46	No
	32-39	.234	.360	.987	-.79	1.26	No
	46-53	-1.005	.368	.070	-2.06	.05	No
	53-60	-.450	.522	.955	-1.94	1.04	No
	46-53	18-25	1.250*	.407	.027	.09	2.41
25-32		1.533*	.280	.000	.73	2.33	Yes
32-39		1.238*	.319	.002	.33	2.15	Yes
39-46		1.005	.368	.070	-.05	2.06	No
53-60		.554	.495	.873	-.86	1.97	No
53-60		18-25	.696	.550	.805	-.88	2.27
	25-32	.978	.464	.284	-.35	2.30	No
	32-39	.684	.489	.728	-.71	2.08	No
	39-46	.450	.522	.955	-1.04	1.94	No
	46-53	-.554	.495	.873	-1.97	.86	No
	*. The mean difference is significant at the 0.05 level.						

In the above given analysis, it can be seen that the researcher has tried to find out the differences in the level of satisfaction among the employees due to their age. All the employees are categorized into the various age groups such as 18 to 25 years, 25 to 32 years, 32 to 39 years, 39 to 46 years, 46 to 53 years and 53 to 60 years. When the satisfaction level of the employees in the age group of 46 to 53 years is compared with the satisfaction level of the employees within the other age groups, there can be seen the significant difference. This can be seen because, this age group is almost on the higher level of their working age and they may be provided more facilities as compared to the other age groups. As a result, there can be seen the significant

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difference when the level of satisfaction of this group is compared with the level of satisfaction of the other groups.

Table – 4.12			
A Table Showing Index for Statutory Facilities			
AGE (In Years)	N	Subset for alpha = 0.05	
		1	2
25-32	432	33.19	
18-25	94	33.47	
32-39	219	33.48	
39-46	129	33.71	33.71
53-60	55	34.16	34.16
46-53	195		34.72
Sig.		.167	.145
Means for groups in homogeneous subsets are displayed.			
a. Uses Harmonic Mean Sample Size = 123.504.			
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.			

The above given table shows that the highest average of satisfaction is from the age group of 46 to 53 years. Their average is 34.72. The age group of 53 to 60 years is on the second rank with average of 34.16 and age group of 39 to 46 is on the third rank with the average satisfaction of 33.71. The age group of 32 to 39 years is having the average satisfaction of 33.48. The age group of 18 to 25 years and 25 to 32 years are having the average of 33.47 and 33.19 respectively.

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D) Analysis of Satisfaction from Statutory Facilities Based on Education:

In this part, the researcher has tried to analyse the differences in the level of satisfaction due to education of employees from statutory facilities.

Null Hypothesis (H₀): There is no significant difference in the level of satisfaction due to education from statutory facilities among the selected sample of employees.

Alternative Hypothesis (H₁): There is significant difference in the level of satisfaction due to education from statutory facilities among the selected sample of employees.

Table – 4.13
A Table Showing Descriptive Statistics Based on Education

Education	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min.	Max.
					Lower Bound	Upper Bound		
Up to SSC	712	33.53	3.141	.118	33.30	33.76	25	46
Up to HSC	308	33.67	3.623	.206	33.27	34.08	25	46
Up to Graduation	69	33.81	2.996	.361	33.09	34.53	29	41
Above Graduation	35	35.26	3.156	.533	34.17	36.34	28	41
Total	1124	33.64	3.282	.098	33.45	33.83	25	46

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Table – 4.14
A Table Showing Analysis of Variance

	Sum of Squares	D.o.F.	Mean Square	F	Sig.
Between Groups	102.354	3	34.118	3.186	.023
Within Groups	11992.437	1120	10.708		
Total	12094.790	1123			

The computed value of F is 3.186 and significant value for this is 0.023, as per the prescribed parameters, the null hypothesis is accepted if significant value is greater than 0.05 @ 5% level of significance, otherwise it is rejected and alternative hypothesis is accepted for the present study. Therefore, in the said case, the null hypothesis is rejected. So the researcher may conclude that, there is significant level of difference in the level of satisfaction due to education of the employees selected under the sample.

To analyse the source of variation, in case of null hypothesis is rejected, it is necessary to perform multiple comparison using Post-hoc based on Tukey's HSD.

Table – 4.15
A Table Showing Multiple Comparisons using Post-hoc Based Tukey's HSD

(I) Education	(J) Education	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval		Is the Difference Significant
					Lower Bound	Upper Bound	
Up to SSC	Up to HSC	-.141	.223	.922	-.72	.43	No
	Up to Graduation	-.281	.413	.905	-1.34	.78	No
	Above Graduation	-1.726*	.567	.013	-3.18	-.27	Yes
Up to HSC	Up to SSC	.141	.223	.922	-.43	.72	No

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	Up to Graduation	-.140	.436	.989	-1.26	.98	No
	Above Graduation	-1.585*	.584	.034	-3.09	-.08	Yes
Up to Graduation	Up to SSC	.281	.413	.905	-.78	1.34	No
	Up to HSC	.140	.436	.989	-.98	1.26	No
	Above Graduation	-1.446	.679	.145	-3.19	.30	No
Above Graduation	Up to SSC	1.726*	.567	.013	.27	3.18	Yes
	Up to HSC	1.585*	.584	.034	.08	3.09	Yes
	Up to Graduation	1.446	.679	.145	-.30	3.19	No
*. The mean difference is significant at the 0.05 level.							

From the above given table, the multiple comparison between the level of satisfaction of the employees based on their education is made. The employees are categorized into four groups, viz., up to SSC, up to HSC, up to Graduation and above Graduation. When multiple comparison is made between the level of satisfaction among all these groups, the significant difference is seen when the other educational groups are compared with the employees having the education of above graduation. This can happen because, the employees having the education of above graduation may be employed at the managerial positions and they might be having more welfare facilities as compared to the others. That is why; their satisfaction level may be higher as compared to the others.

Table – 4.16			
A Table Showing Index for Statutory Facilities			
EDUCATION	N	Subset for alpha = 0.05	
		1	2
Up to SSC	712	33.53	
Up to HSC	308	33.67	
Up to Graduation	69	33.81	
Above Graduation	35		35.26
Sig.		.945	1.000
Means for groups in homogeneous subsets are displayed.			
a. Uses Harmonic Mean Sample Size = 83.830.			
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.			

From the above given table, it can be seen that the highest average of satisfaction is from the employees having the education of above graduation. They have the average of 35.26. The employees having the education of up to graduation are having average satisfaction of 33.81. The employees having the education of up to HSC are having the average satisfaction of 33.67 and that of the employees with the education up to SSC is 33.53.

E) Analysis of Dichotomous Questions Related to Statutory Facilities:

In the analysis of level of satisfaction of from the Statutory Facilities, the researcher has included the dichotomous questions also. In Part – 3 of the questionnaire, there are 04 questions i.e. Question Number - 20, 22, 24, 26 are dichotomous questions which are meant to ask about the availability or non-availability of the respective facilities. **(See Appendix – 5 for the responses to Dichotomous Questions)**

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Table – 4.17					
Table Showing Responses to Availability of Welfare Facilities					
Q. No.	Question	Responses (Absolute)		Responses (in %)	
		Yes	No	Yes	No
20	Do you have canteen facility in your organization?	00	1124	00	100

The above given table shows that all the respondents have responded negatively to this question. It means that, the firms taken under the study are not providing the canteen facility. During the informal discussion with the respondents, the researcher came to know that it is not feasible and possible for these firms to provide the canteen facilities to the employees. So this facility is not provided to them and as a result this facility cannot create more satisfaction to them.

Table – 4.18					
Table Showing Responses to Availability of Welfare Facilities					
Q. No.	Question	Responses (Absolute)		Responses (in %)	
		Yes	No	Yes	No
22	Does your organization provide maternity leave and maternity benefits to you?	68	1056	6.05	93.95

The above given table shows that 6.05% of the employees have responded positively to this question and 93.95% of the employees have responded negatively. Out of 1124 respondents selected under the study, there are 69 females. Out of 69, female 68 have responded positively and only 1 has responded negatively. It means that this creates dissatisfaction for her.

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Table – 4.19					
Table Showing Responses to Availability of Welfare Facilities					
Q. No.	Question	Responses (Absolute)		Responses (in %)	
		Yes	No	Yes	No
24	Does your organization provide the facility for baby care and crèche for your children?	00	1124	00	100

The above given table shows that baby care facilities and crèche facilities are not provided to the employees working in such organizations. It is quite clear from the discussion made by the researcher with the respondents that it is not possible for these firms to provide these facilities. This also leads to dissatisfaction among the employees.

Table – 4.20					
Table Showing Responses to Availability of Welfare Facilities					
Q. No.	Question	Responses (Absolute)		Responses (in %)	
		Yes	No	Yes	No
26	Does your organization provide the education facilities for your children?	110	1014	9.79	90.21

The above given table shows that the education facility to the children of the employees is provided to some extent. 9.79% of the respondents have responded positively and 90.21% of the respondents have responded negatively to this question. It means that most of the employees do not get this facility and as a result, this adds to the dissatisfaction of the employees.

4.3 Analysis of Employees' Satisfaction from Non-statutory Facilities (Part – 4 of the Questionnaire):

In this research work, the researcher has tried to study the satisfaction of employees from the welfare facilities provided to them by their employers. To execute this research work, the researcher has selected the Diesel Engine Industry of Rajkot District. The researcher has randomly selected 32 firms that

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are engaged with diesel engine manufacturing activities in Rajkot. For the purpose of analyzing the level of satisfaction from the welfare facilities, the researcher has prepared a questionnaire. These questionnaires were distributed among the employees engaged in the firms of diesel engine. The employees filled their responses in these questionnaires.

It is clear that an organization has to provide both statutory and non-statutory facilities for the welfare to the employees working in the organization. The non-statutory facilities include the facilities like facilities of entertainment, facilities for residence, facilities of transportation, Co-operative stores, availability of loan, etc. In this part of research work, the researcher has attempted to make the analysis of level of satisfaction from non-statutory facilities.

Part – 4 the last part of the questionnaire includes the questions related to non-statutory welfare facilities. To get the responses related to non-statutory welfare facilities, the researcher has used 10 Questions i.e. Question Number – 28 to Question Number – 37. Out of these 10 questions, 05 questions i.e. Question Number – 29, 31, 33, 35, 37 are questions based on Likert Scale Analysis using Five Point Scaling. There are 05 questions i.e. Question Number - 28, 30, 32, 34, 36 are dichotomous questions which are meant to ask about the availability or non-availability of the respective non-statutory facilities.

The responses given by the employees to the Questions using Likert Scale were categorized into five categories i.e. “Highly Satisfied”, “Satisfied”, “Average”, “Dissatisfied” and “Highly Dissatisfied”.

These responses given by the employees were assigned the weight from positive to negative. The weights are shown in the following table.

Table – 4.21
Table Showing Weight to the Responses of the Employees

Response	Weight
Highly Satisfied	5
Satisfied	4
Average	3
Dissatisfied	2
Highly Dissatisfied	1

The responses given by the respondents are multiplied with the respective weight. This gave a consolidated response of all the respondents and on the bases of that the Satisfaction Index is derived.

To make the statistical analysis, the researcher has used MS Excel and IBM SPSS. With the use of MS Excel and IBM SPSS, the researcher has applied ANOVA and multiple comparisons using Post-hoc based on Tukey's HSD.

In this section, analysis of satisfaction from Non-statutory Facilities is presented by the researcher. To come to know about the responses, weight and satisfaction index, a table showing the satisfaction index is prepared. (See **Appendix – 4 for the responses, weight and satisfaction index for Non-statutory welfare facilities**)

(A) Analysis of Satisfaction from Non-statutory Facilities Based on Gender:

In this part, the researcher has tried to analyse the differences in the level of satisfaction due to gender of employees from non-statutory facilities.

Null Hypothesis (H_0): There is no significant difference in the level of satisfaction due to gender from non-statutory facilities among the selected sample of employees.

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Alternative Hypothesis (H₁): There is significant difference in the level of satisfaction due to gender from non-statutory facilities among the selected sample of employees.

Table – 4.22
A Table Showing Descriptive Statistics Based on Gender

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
MALE	1055	14.00	2.426	.075	13.85	14.15	7	19
FEMALE	69	14.19	1.801	.217	13.76	14.62	10	19
Total	1124	14.01	2.392	.071	13.87	14.15	7	19

Table – 4.23
A Table Showing Analysis of Variance

	Sum of Squares	D.o.F.	Mean Square	F	Sig.
Between Groups	2.299	1	2.299	.401	.526
Within Groups	6424.551	1122	5.726		
Total	6426.850	1123			

The computed value of F is 0.401 and significant value for this is 0.526, as per the prescribed parameters, the null hypothesis is accepted if significant value is greater than 0.05 @ 5% level of significance, otherwise it is rejected. Therefore, in the said case, the null hypothesis is accepted. So the researcher may conclude that, there is no significant difference in the level of satisfaction from non-statutory facilities due to age of the employees selected under the sample.

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(B) Analysis of Satisfaction from Non-statutory Facilities Based on Experience:

In this part, the researcher has tried to analyse the differences in the level of satisfaction due to experience of employees from non-statutory facilities.

Null Hypothesis (H₀): There is no significant difference in the level of satisfaction due to experience from non-statutory facilities among the selected sample of employees.

Alternative Hypothesis (H₁): There is significant difference in the level of satisfaction due to experience from non-statutory facilities among the selected sample of employees.

Table – 4.24								
A Table Showing Descriptive Statistics Based on Experience								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
<2 YEARS	108	13.63	2.625	.253	13.13	14.13	8	19
2-5 YEARS	494	14.12	2.272	.102	13.91	14.32	8	19
5-10 YEARS	262	13.79	2.370	.146	13.50	14.08	8	19
>10 YEARS	260	14.20	2.514	.156	13.89	14.50	7	19
Total	1124	14.01	2.392	.071	13.87	14.15	7	19

Table – 4.25
A Table Showing Analysis of Variance

	Sum of Squares	D.o.F.	Mean Square	F	Sig.
Between Groups	42.791	3	14.264	2.502	.058
Within Groups	6384.059	1120	5.700		
Total	6426.850	1123			

The computed value of F is 2.502 and significant value for this is 0.058, as per the prescribed parameters, the null hypothesis is accepted if significant value is greater than 0.05 @ 5% level of significance, otherwise it is rejected. Therefore, in the said case, the null hypothesis is accepted. So the researcher may conclude that, there is no significant difference in the level of satisfaction from non-statutory facilities due to experience of the employees selected under the sample.

(C) Analysis of Satisfaction from Non-statutory Facilities Based on Age:

In this part, the researcher has tried to analyse the differences in the level of satisfaction due to age of employees from non-statutory facilities.

Null Hypothesis (H_0): There is no significant difference in the level of satisfaction due to age from non-statutory facilities among the selected sample of employees.

Alternative Hypothesis (H_1): There is significant difference in the level of satisfaction due to age from non-statutory facilities among the selected sample of employees.

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Table – 4.26
A Table Showing Descriptive Statistics Based on Age

Years	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
18-25	94	13.67	2.653	.274	13.13	14.21	8	19
25-32	432	14.20	2.238	.108	13.99	14.42	8	19
32-39	219	13.87	2.545	.172	13.53	14.21	8	19
39-46	129	14.31	2.597	.229	13.86	14.76	7	19
46-53	195	13.80	2.294	.164	13.48	14.12	8	19
53-60	55	13.69	2.193	.296	13.10	14.28	9	19
Total	1124	14.01	2.392	.071	13.87	14.15	7	19

Table – 4.27
A Table Showing Analysis of Variance

	Sum of Squares	D.o.F.	Mean Square	F	Sig.
Between Groups	57.037	5	11.407	2.002	.076
Within Groups	6369.813	1118	5.698		
Total	6426.850	1123			

The computed value of F is 2.002 and significant value for this is 0.076, as per the prescribed parameters, the null hypothesis is accepted if significant value is greater than 0.05 @ 5% level of significance, otherwise it is rejected.

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Therefore, in the said case, the null hypothesis is accepted. So the researcher may conclude that, there is no significant difference in the level of satisfaction from non-statutory facilities due to age of the employees selected under the sample.

(D) Analysis of Satisfaction from Non-statutory Facilities Based on Education:

In this part, the researcher has tried to analyse the differences in the level of satisfaction due to education of employees from non-statutory facilities.

Null Hypothesis (H_0): There is no significant difference in the level of satisfaction due to education from non-statutory facilities among the selected sample of employees.

Alternative Hypothesis (H_1): There is significant difference in the level of satisfaction due to education from non-statutory facilities among the selected sample of employees.

Table – 4.28								
A Table Showing Descriptive Statistics Based on Education								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min.	Max.
					Lower Bound	Upper Bound		
Up to SSC	712	14.07	2.256	.085	13.91	14.24	8	19
Up to HSC	308	13.81	2.554	.146	13.53	14.10	7	19
Up to Graduation	69	13.84	2.720	.328	13.19	14.49	8	19
Above Graduation	35	14.86	2.777	.469	13.90	15.81	9	19
Total	1124	14.01	2.392	.071	13.87	14.15	7	19

Table – 4.29
A Table Showing Analysis of Variance

	Sum of Squares	D.o.F	Mean Square	F	Sig.
Between Groups	41.519	3	13.840	2.428	.064
Within Groups	6385.330	1120	5.701		
Total	6426.850	1123			

The computed value of F is 2.428 and significant value for this is 0.064, as per the prescribed parameters, the null hypothesis is accepted if significant value is greater than 0.05 @ 5% level of significance, otherwise it is rejected. Therefore, in the said case, the null hypothesis is accepted. So the researcher may conclude that, there is no significant difference in the level of satisfaction from non-statutory facilities due to education of the employees selected under the sample.

E) Analysis of Dichotomous Questions Related to Non-statutory Welfare Facilities:

In the analysis of level of satisfaction of from the Non-statutory Facilities, the researcher has included the dichotomous questions also. In Part – 4 of the questionnaire, there are 05 questions i.e. Question Number – 28, 30, 32, 34, 36 are dichotomous questions which are meant to ask about the availability or non-availability of the respective facilities. (See Appendix – 5 for the responses to Dichotomous Questions)

Table – 4.30
Table Showing Responses to Availability of Welfare Facilities

Q. No.	Question	Responses (Absolute)		Responses (in %)	
		Yes	No	Yes	No
28	Does your organization provide the recreational facility to you?	1118	08	99.30	0.70

The above given table shows that out of 1124 respondents under the study, 1116 (99.30%) have responded positively to this question. It means that all the

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firms provide recreational facilities to the employees. During the informal discussion with the employees and management personnel, the researcher came to know that the recreational facilities do not include any high level of recreation but they just allow the employees to listen to the radio or to watch television during the work. Sometime, they take the employees on a small picnic. This is the only way of recreation for them. 08 (0.70%) respondents have responded negatively. It means that they are not satisfied with this recreational facility.

Table – 4.31					
Table Showing Responses to Availability of Welfare Facilities					
Q. No.	Question	Responses (Absolute)		Responses (in %)	
		Yes	No	Yes	No
30	Does your organization provide housing facility to you?	00	1124	00	100

From the above given table, it can be seen that all the respondents have responded negatively to this question. It means that none of the firms selected under the study provide housing facility to the employees. The reason behind that is these firm are working on small scale and it is not possible for them to provide the housing facilities to the employees.

Table – 4.32					
Table Showing Responses to Availability of Welfare Facilities					
Q. No.	Question	Responses (Absolute)		Responses (in %)	
		Yes	No	Yes	No
32	Are you provided with the transportation facility in your organization?	611	513	54.40	45.60

From the above given table, it can be seen that 611 respondents (54.40%) of the total respondents have replied positively and 513 respondents (45.60%) have replied negatively. It means that this facility creates an average level of satisfaction among the employees. During the informal discussion with the

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respondents, the researcher came to know that the travelling facility is not a very good facility but they are provided with just a two wheeler when needed to move from factory to home during the lunch break. So the satisfaction level is not so high.

Table – 4.33					
Table Showing Responses to Availability of Welfare Facilities					
Q. No.	Question	Responses (Absolute)		Responses (in %)	
		Yes	No	Yes	No
34	Does your organization run any co-operative store for the workers?	00	1124	00	100

The above given table shows that all the respondents have replied negatively to this question. It means that none of the organization selected under the study provide the facility of co-operative stores. This creates dissatisfaction among the workers.

Table – 4.34					
Table Showing Responses to Availability of Welfare Facilities					
Q. No.	Question	Responses (Absolute)		Responses (in %)	
		Yes	No	Yes	No
36	Does your organization provide loan facility to you?	1124	00	100	00

The above given table shows that all the 1124 respondents have replied positively to this question. It means that all the organizations under study provide loan facility to the employees. During the informal discussion with the respondents, the researcher came to know that they employers provide a small amount as a loan to the employees and charge a very nominal interest and sometimes they don't charge any interest on the loan. This adds to the level of satisfaction of the employees.

Chapter 5

Summary, Findings and Suggestions

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