Perceptions of Customers and Employees on Relationship Dimensions

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ABSTRACT — *A detailed analysis has been done with the primary data collected from the sample customers and employees. The impact of the domestic variables and ten relationship variables on customer satisfaction and customer loyalty has also been evaluated. Further, a comparison of the perceptions of the customers with the perceptions of employees on the relationship variables has been studied and identified the differences between them. Also the benefits enjoyed by the customers in their relationship with the LIC and the problems faced by the customers and employees in their relationship have been analyzed and ranked.*

The analysis is presented in three parts as below :

1. In the first part there is descriptive statistics and differential analysis. The descriptive statistics gives details regarding Mean and Standard deviation of the overall perceptions of the sample group of customers and employees with respect to the ten relationship dimensions. The differential analysis focuses on the existence of significant difference between the sub-sample groups and also between the sample customers and employees. ANOVA and 't' Test are the tools applied for differential analysis.

2. The Multivariate analysis studies the simultaneous relationships among the independent variables and the dependent variables. Multiple regression analysis is the tool applied for multivariate analysis.

3. In the final section, the benefits enjoyed by the customers in their relationship with LIC and the problems faced by the customers and employees in their relationship are analyzed and ranked with the help of Kendall's coefficient of concordance.

Customers

The descriptive statistics regarding the overall perceptions of the sample group of customers with respect to the ten dimensions of relationship are stated below.

The means and standard deviations of the ten dimensions of relationship for the sample group of customers (300) are presented in the following table.

Table 1: Overall Customer Perception

Relationship Variables	Overall		
	N	Mean	S.D
Trust	300	30.07	6.962
Commitment	300	18.42	3.989
Empathy	300	13.02	2.773
Reciprocity	300	13.69	2.644
Interaction	300	29.05	5.454
Quality	300	18.94	4.375
Attraction	300	22.95	4.704
Emotional Element	300	16.48	3.758
Customization	300	9.46	2.178
Social Responsibility	300	9.15	2.138

Table .1 shows that the mean and standard deviation of overall customer perception scores of relationship dimension variables. It can be inferred that the mean score for 'Trust' is found to be very high (30.07) and the mean score of Social Responsibility is found to be low (9.15) as per the perceptions of the customers.

The most commonly used procedure for testing the significance of differences among several means simultaneously or collectively is Analysis of Variance (ANOVA).

In order to check for the differences among the various sub-sample group of customers (age-wise, sex-wise, marital status-wise, income-wise, occupational-wise and longevity-wise) with respect to their satisfaction, one-way Analysis of Variance and 't' test were conducted.

Table 2: Age Group - Wise Distribution of Customer Satisfaction

AGE (in years)	N	Mean	SD	F-value (p-value)
Below 25	19	16.7895	2.4170	
26-35	42	16.9048	3.3409	
36-45	123	16.2927	2.5917	3.93* (0.04)
46-55	103	16.1942	3.1344	
Above 55	13	13.1538	5.7857	

* Significant at 0.05 level

With reference to the mean scores of customer satisfaction, it is found that there is significant difference among the age groups of customers. The corresponding F – value is given by 3.93 which is significant at 5% level. From the table.2 it can be inferred that the perceptions of customers of various age groups vary significantly with respect to the customer satisfaction.

Table 3: Sex Group - Wise Distribution of Customer Satisfaction

Gender	N	Mean	SD	t-test(p-value)
Male	186	16.3226	3.5539	0.58 NS (0.56)
Female	114	16.1053	2.2942	

NS: Not Significant

It is observed from the results obtained from the application of t-test that there is no significant difference between the mean scores of male and female customers with respect to the customer satisfaction. The corresponding t – value is not significant at 5% level. It indicates that the perceptions of male and female customers do not vary significantly with respect to the customer satisfaction.

Table 4: Marital Status - Wise Distribution of Customer Satisfaction

Martial	N	Mean	SD	t-test (p-value)
Married	264	16.2083	3.1716	0.47NS (0.63)
Un-married	36	16.4722	2.8634	

NS: Not Significant

The results obtained from the application of t-test that there is no significant difference between the mean scores of married and un-married customers with respect to the customer satisfaction. The corresponding 't' – value is not significant at 5% level. It indicates that the perceptions of married and un-married customers do not vary significantly with respect to the customer satisfaction.

Table 5: Income Group - Wise Distribution of Customer Satisfaction

Annual Income (in Rupees)	N	Mean	SD	F-value (p-value)
Below 150000	52	16.8269	3.0145	0.75 NS (0.532)
150000-200000	144	16.1250	3.6640	
200000-250000	73	16.1096	1.8750	
Above 250000	31	16.0968	3.0370	

NS: Not Significant

It is observed from the Table 5 that there is no significant difference among various income groups of customers with respect to the mean scores of customer satisfaction. The corresponding F- value is not significant at 5% level. It can be inferred that the perceptions of customers of various income groups do not vary significantly with respect to the customer satisfaction.

Table 6: Occupational Group- Wise Distribution of Customer Satisfaction

Occupation	N	Mean	SD	F-value (p-value)
Business	104	16.4135	3.4770	0.74 NS (0.524)
Government Employee	51	15.8824	2.6806	
Private Employee	78	16.5128	3.2503	
Professional	67	15.9254	2.7376	

NS: Not Significant

It is observed that there is no significant difference among various occupational groups of customers with respect to the mean scores of customer satisfaction. The corresponding F-value is not significant at 5% level. It can be inferred that the perceptions of customers belonging to various occupational positions do not vary significantly with respect to the customer satisfaction.

Table 7: Longevity Group - Wise Distribution of Customer Satisfaction

Longevity (in Years)	N	Mean	SD	F-value (p-value)
Below 10	42	16.8095	3.1487	4.67** (0.003)
11-15	30	17.6000	3.0011	
16-20	80	16.5625	2.2605	
Above 20	148	15.6284	3.4311	

** Significant at 0.01 level

The results obtained from the ANOVA technique reveal that there is significant difference among various longevity groups of customers with respect to the mean scores of customer satisfaction. The corresponding F- value is given by 4.67 which is highly significant at 1% level. It can be inferred that the perceptions of customers belonging to various longevity periods vary significantly with respect to the customer satisfaction.

In order to check for the differences among the various sub-sample group of customers (age-wise, sex-wise, marital status-wise, income-wise, occupational-wise and longevity-wise) with respect to the Customer Loyalty, one-way Analysis of Variance and 't' test were conducted.

Table 8: Age Group- Wise Distribution of Customer Loyalty

AGE (in years)	N	Mean	SD	F-value (p-value)
Below25	19	9.1053	1.6632	5.35** (0.01)
26-35	42	10.0714	2.1908	
36-45	123	9.7805	1.9014	
46-55	103	9.0097	1.9478	
Above 55	13	7.7692	3.4678	

** Significant at 0.01 level

With reference to the mean scores of customer loyalty, it is found that there is significant difference among the age groups of customers. The corresponding F – value is given by 5.35 which is highly significant at 1% level. It can be inferred that the perceptions of customers of various age groups vary significantly with respect to the customer loyalty.

Table 9: Sex Group- Wise Distribution of Customer Loyalty

Gender	N	Mean	SD	t-test (p-value)
Male	186	9.7742	2.4167	
Female	114	8.8596	1.2184	3.75** (0.01)

** Significant at 0.01 level

It is observed from the results obtained from the application of t-test that there is significant difference between the mean scores of male and female customers with respect to the customer loyalty. The corresponding 't'– value is given by 3.75 which is highly significant at 1% level. It indicates that the perceptions of male and female customers vary significantly with respect to the customer loyalty.

Table 10: Marital Status Group- Wise Distribution of Customer Loyalty

Marital status	N	Mean	SD	t-test (p-value)
Married	264	9.4167	2.1129	
Un-married	36	9.5000	1.9494	0.224 NS (0.06)

NS: Not Significant

The results obtained from the application of t-test that there is no significant difference between the mean scores of married and un-married customers with respect to the customer loyalty. The corresponding t–value is not significant at 5% level. It indicates that the perceptions of married and un-married customers do not vary significantly with respect to the customer loyalty.

Table 11: Income Group- Wise Distribution of Customer Loyalty

Annual Income (in Rupees)	N	Mean	SD	F-value (p-value)
Below 150000	52	10.2885	2.2952	5.25** (0.02)
150000-200000	144	9.3333	2.2282	
200000-250000	73	8.8630	1.2507	
Above 250000	31	9.7419	2.2356	

** Significant at 0.01 level

It is found that there is significant difference among various income groups of customers with respect to the mean scores of customer loyalty. The corresponding F- Value is given by 5.25 which is highly significant at 1%. It can be inferred that the perceptions of customers belonging to various income groups vary significantly with respect to the customer loyalty.

Table 12: Occupational Group- Wise Distribution of Customer Loyalty

Occupation	N	Mean	SD	F-value (p-value)
Business	104	9.1731	2.1607	1.19 NS (0.337)
Government Employee	51	9.3529	1.7644	
Private Employee	78	9.7308	2.2544	
Professional	67	9.5224	2.0027	

NS: Not Significant

It is observed that there is no significant difference among various occupational groups of customers with respect to the mean scores of customer loyalty. The corresponding F-

value is not significant at 5% level. It can be inferred that the perceptions of customers belonging to various occupational positions do not vary significantly with respect to the customer loyalty.

Table 13: Longevity Group- Wise Distribution of Customer Loyalty

Longevity (in years)	N	Mean	SD	F - v a l u e (p-value)
Below 10	42	9.4048	2.0960	
11-15	30	10.3000	2.1359	2.05 NS (0.106)
16-20	80	9.2250	1.3777	
Above 20	148	9.3649	2.3594	

NS: Not Significant

The results obtained from the ANOVA technique reveal that there is no significant difference among various longevity groups of customers with respect to the mean scores of customer loyalty. The corresponding F- value is not significant at 5% level. It can be inferred that the perceptions of customers belonging to different longevity periods do not vary significantly with respect to the customer satisfaction.

In order to check for the differences among the various demographic groups of customers (age-wise, sex-wise, marital status-wise, income-wise, occupational-wise and longevity-wise) with respect to the ten relationship dimensions, one-way analysis of variance and 't' Test were conducted. The following hypotheses have been formulated:

There is no significant difference, with respect to ten relationship dimensions between

Ho1 Customers of various Age groups
Ho2 Male and Female customers
Ho3 Married and Unmarried customers
Ho4 Customers of various Occupational statuses
Ho5 Customers of various Income statuses
Ho6 Customers of various Longevity groups.

The F value and the associated probability level (p values) are given in tables 6.14 to 6.19 for the various sub sample groups.

Table 14: Age-Wise Customer Groups and Relationship Dimensions

Relationship variables	Below 25 years n=19		26 - 35 years n=42		36 - 45 years n=123		46 - 55 years n=103		Above 55 years n=13		F-Value	p-Value
	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D		
Trust	29.8947	6.6407	32.2143	7.8726	30.5610	6.2766	29.5728	6.4040	22.7692	10.1090	8.406**	0.004
Commitment	16.6842	2.6678	19.0476	4.3782	19.0894	3.3241	18.1262	4.0769	15.0000	6.5192	1.511 NS	0.220
Empathy	12.7368	2.6213	13.6429	2.3872	13.4228	2.3259	12.7087	2.9560	10.0000	4.3205	7.95**	0.005
Reciprocity	14.4737	2.6950	13.7143	2.8651	13.8618	2.1779	13.7184	2.5530	10.5385	4.4275	6.611**	0.011
Interaction	29.9474	5.0824	29.3095	5.7275	30.0325	4.1881	28.1942	5.3175	24.3077	11.3826	8.544**	0.004
Quality	17.9474	4.5640	19.3095	4.5878	19.4065	4.0038	18.9903	4.0885	14.3846	6.4748	1.638 NS	0.202
Attraction	22.7368	3.8563	23.2381	5.3548	23.3171	3.9074	22.8641	4.5763	19.6154	9.1610	1.700 NS	0.193
Emotional Element	16.5263	4.0739	17.0476	4.3614	16.8211	3.4428	16.1748	3.2552	13.7692	6.3529	4.394*	0.037
Customization	9.8947	2.3780	9.7143	2.6622	9.7073	1.9700	9.2913	1.8715	7.0000	2.8868	9.642**	0.002
Social Responsibility	9.2105	1.6526	10.0000	2.2306	9.5122	1.9050	8.7476	1.9838	6.0769	2.6287	22.477**	0.00

NS: Not Significant   *** Significant at 0.05 level**   **** Significant at 0.01 level**

It can be observed from the Table 14 that the customers in the age group below 25 years have given 'Interaction' the maximum mean score of 29.94 and 'Social Responsibility' the minimum mean score of 9.21. Customers in the age group between 26 and 35years have given 'Trust' the maximum mean score of 32.21 and 'Customization' the minimum mean score of 9.71. Customers in the age group between 36 and 45years have given 'Trust' the maximum mean score of 30.56 and 'Social Responsibility' the minimum mean score of 9.51. Customers in the age group between 46 and 55years have given 'Trust' the maximum mean score of 29.57 and 'Social Responsibility' the minimum mean score of 8.75. Likewise customers in the age group of above 55 years have given 'Interaction' the maximum mean score of 24.31 and 'Social Responsibility' the minimum mean score of 6.08.

To test the hypothesis Ho1, ANOVA technique was applied. With respect to Commitment, Quality and Attraction, it is found that there is no significant difference among the various age groups of customers. The corresponding F- value is not significant at 5% level. Hence, Ho1 is accepted implying that the perceptions of the customers of various age groups do not vary significantly with respect to the above said relationship dimensions.

With respect to Trust, it is observed from the application of ANOVA technique that there is significant difference among the various age groups of customers. The cor-

responding F-value is given by 8.406 which is highly significant at 1% level. Hence, the hypothesis Ho1 is rejected implying that the perceptions of the various age groups of customers vary significantly with respect to the relationship dimension of Trust. Customers in the age group of 26-35 years have higher perceptions of 'Trust' than those who are below 25 years, in the age group of 36-45, in the age group of 46-55 and who are above 56 years. Among the various age groups customers who are above 56 years have lower perceptions of 'Trust'.

With respect to Empathy it is observed from the application of ANOVA technique that there is significant difference among the various age groups of customers. The corresponding F-value is given by 7.95 which is highly significant at 1% level. Hence, the hypothesis Ho1 is rejected implying that the perceptions of the customers of various age groups vary significantly with respect to Empathy. Customers in the age group of 26-35 years have higher perceptions of 'Empathy' than those who are below 25 years, in the age group of 36-45, in the age group of 46-55 and who are above 56 years. Among the various age groups customers who are above 56 years have lower perceptions of 'Empathy'.

It is observed that there is significant difference among the customers of different age groups with reference to the relationship dimension of Reciprocity. The corresponding F- value is given by 6.611which is highly significant at 1%

level. Hence, Ho1 is rejected implying that there is significant difference in the perceptions among the various age groups of sample customers and relationship dimension of Reciprocity. Customers in the age group of 26-35 years have higher perceptions of 'Reciprocity' than those who are below 25 years, in the age group of 36-45, in the age group of 46-55 and those who are above 56 years. Among the various age groups customers who are above 56 years have lower perceptions of 'Reciprocity'.

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