



CUSTOMER SATISFACTION: A COMPARATIVE STUDY OF MARUTI AND TATA MOTOR CARS IN ANDHRA PRADESH

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ABSTRACT

The automobile sector plays a vital role in the development of a nation. India is one of the largest and fastest growing countries in automobile sector. The research covers customer satisfaction towards Maruti and Tata Motor cars. The present study was carried to identify the relationship between demographic factors and customer satisfaction. The positive influence of customer satisfaction makes the customers to be loyal to the company. The population of the study comprises the total population of five cities in Andhra Pradesh. Random sample was carried on 1000 customers out of which 500 are Maruti users and 500 are Tata Motor car users. A well designed questionnaire was administered for the study. Chi-square, ANOVA, Regression, F-test & Z-test were used to analyse the data. The analysis helps in providing improvements in the pertinent areas of Maruti and Tata Motor cars.

Key words: *Automobile Industry, demographic factors, customer satisfaction, positive influence, Quality, service.*

1.1 INTRODUCTION:

Automobile industry has become the back bone of the Indian economy which employe's 13 million individuals in India. The automotive industry is contributing about 3.1 % of India's GDP. India is one of the fastest growing car markets in the world. India is expected to overtake China by 2050 in terms of the number of units sold. India has a huge domestic market and as of now it has a low base of car ownership (17 per 1000 people). Lower cost of production, availability of skilled labour, surging economy, pro industrial policy of the government made India to be a huge attraction for car manufacturers across the globe. Several foreign auto manufacturers like Ford, General Motors, Honda and Hyundai have their



own manufacturing bases in India. Multiplicity of local taxes, high import duties on raw materials, high taxes on services, lack of infrastructure, poor after sales service, inconsistency in quality, congested roads are becoming hurdles for the higher growth rate of passenger cars industry.

1.2 Review of Literature:

Dr. V. Senthilkumar (2012) conducted a research on the effects of customer service and product quality on customer satisfaction and loyalty to clarify the relationship among four variables of customer service quality, product quality, customer satisfaction and customer loyalty. For this a well designed questionnaire was administered using five point Likert scale. 52 customers were surveyed using this questionnaire. The data analyses revealed that customer service and product quality have been influential on customer satisfaction. The researcher concluded that there is a positive and meaningful relationship between customer satisfaction and customer loyalty. **Prof. Nistorescu, Mr. Mihail Barbu and Mr. Roxana Ioana Dumitriu (2013)** conducted a study concerning customer loyalty in the auto market. The objective was to study the dimensions of loyalty viz. satisfaction, re-acquisition, and recommendation, and to see if there were any correlations among the three dimensions. 593 customers were taken as sample for the survey. Simple random sampling technique was used to select the sample. The analysis showed that there was statistically significant correlation between satisfaction and repurchase, between satisfaction and recommendation and between recommendation and repurchase. The researchers concluded that loyalty is a powerful marketing tool and the three dimensions are interrelated. **Prof. Pallawi B. Sangode (2011)** conducted a comparative study on Service Quality of Maruti Suzuki and Hyundai Dealers in Nagpur. The objectives of the study were (i) To understand and categorize the factors influencing service quality (ii) To find out the variables which can be defined under each factor (iii) To compare Maruti and Hyundai showrooms in terms of quality. For this a survey was conducted using convenience sampling method. 40 respondents who were users of Maruti and Hyundai cars were taken for the study. From the analysis it was found that there is a significant difference between the service quality provided by Maruti and Hyundai dealers.

1.3 Statement of the problem:

In this competitive environment corporate companies are keen in promoting brands and creating brand value to project their products and to sustain in the market. Hence it is very essential to know the determinants and measurement of brand equity and its implication on value of the firm. Automobile industry in general and car industry in particular is chosen taking into account the emergence of many new brands of cars in the recent past and changing mind set of the customers on the purchase of cars. Customer satisfaction plays a key role in choosing a particular brand.



1.4 Significance of the study:

In this dynamic environment, Customers are becoming more comfort conscious than price. Choosing a particular brand of car requires lot of prior information and good decision making skills to come to a conclusion as to what of type of car has to be purchased.

1.5 Objectives of the study:

1. To measure the customer satisfaction level towards Maruti and Tata Motor cars in Andhra Pradesh.
2. To compare the customer satisfaction level between Maruti and Tata Motor cars.
3. To provide suggestions to improve the customer satisfaction of Maruti and Tata Motor Cars.

1.6 Research Methodology

Research design: Descriptive research

Data sources:

- **Secondary Data:** Secondary data sources are journals, magazines association bulletins (SIAM, ICRA), news papers, web portals, company brochures, books etc.
- **Primary Data:** Users of Maruti and Tata Motor Cars in Andhra Pradesh are the primary data sources.

Research approach: Survey method

Research instrument: Structured questionnaire

Sampling design:

- **Sampling frame:** Customers of Maruti and Tata Motor cars in major cities of Andhra Pradesh were taken for the survey. The cities considered for the study were Guntur, Nellore, Rajahmundry, Vijayawada and Visakhapatnam
- **Sampling unit:** Maruti and Tata Motor Car users.
- **Sample Size:** The sample size is 1000 (500 Maruti and 500 Tata, 200 from each city)
- **Sampling method :** Convenience sampling method

- **Contact method:** Personal contact
- **Statistical Tools Used:** Chi-square Test, Regression Analysis, ANOVA, Z-Test, F-Test.

Scope of the Study:

The present study aims at assessing the customer behaviour and satisfaction by using Maruti and Tata Motor car respondents. It also tries to identify the factors influencing the choice of different models.

Hypotheses:

- H01: Customer satisfaction level of Maruti and Tata Motor cars is independent of age.
- H02: Customer satisfaction towards Maruti and Tata motor cars is independent of family size.
- H04: Customer satisfaction towards Maruti and Tata motor cars is independent of occupation.
- H05: Customer satisfaction towards Maruti and Tata motor cars is independent of income level.
- H07: There is no significant difference in customer satisfaction between Maruti and Tata Motor cars.

1.7 Limitations of the study:

- The study is restricted to five major cities in Andhra Pradesh.
- The study is confined to the existing passenger car users.
- The data has been gathered using a questionnaire and hence the limitations of the questionnaire are inherent in the report.

1.8 DATA ANALYSIS:

1.8.1 DEMOGRAPHIC PROFILE OF THE RESPONDENTS

Distribution of overall sample respondents based on their demographic characteristics namely age, family size, educational qualification, occupation, income level and years of ownership are displayed in table 1.1.

Age:

The overall sample represents 295 (29.5%) respondents from the age group of ‘less than 30 years’, 469 (46.9%) from ‘30 to 45 years’, and 236 (23.6%) from ‘above 45 years’. It is found that majority of the respondents are from the age group of ‘30-45 years’. The major respondents are below 45 years for Maruti and are above 30 years for Tata cars.

Table 1.1 *Profile of the Respondents* (N=1000)

Characteristics	Groups	Overall		Maruti		Tata	
		Freq.	%	Freq.	%	Freq.	%
<i>Age</i>	Below 30 years	295	29.5	209	41.8	86	17.2
	30 – 45 years	469	46.9	211	42.2	258	51.6
	Above 45 years	236	23.6	80	16.0	156	31.2
	Total	1000	100.0	500	100	500	100
<i>Family Size</i>	< = 3 members	337	33.7	243	48.6	94	18.8
	4 members	487	48.7	211	42.2	276	55.2
	> = 5 members	176	17.6	46	9.2	130	26.0
	Total	1000	100.0	500	100	500	100
<i>Income Level</i>	< 4 lakhs	286	28.6	215	43.0	71	14.2
	4 – 6 lakhs	375	37.5	116	23.2	259	51.8
	6 – 8 lakhs	172	17.2	62	12.4	110	22.0
	> 8 lakhs	167	16.7	107	21.4	60	12.0
	Total	1000	100.0	500	100	500	100
<i>Name of the passenger car company</i>	MARUTI	500	50.0	500	100	-	-
	TATA	500	50.0	-	-	500	100
	Total	1000	100	500	100	500	100

Family Size:

From the survey, it is found that majority of the respondents are having family size as ‘4 members’ (n=487), followed by 337 respondents having less than or equal to 3 members as family size. 176 respondents are having family size ‘above or equal to 5 members’. Majority of the Maruti respondents are having family size of less than or equal to four members, whereas majority of Tata respondents are having ‘above or equal to four members’.

Income Level:

Majority of the sample respondents are having '4-6 lakhs' of annual income (n=375, 37.5%). 286 respondents (28.6%) are having less than 4 lakhs of annual income. 172 (17.2%) respondents have '6-8 lakhs' of annual income and 167 (16.7%) respondents are having above eight lakhs. For Maruti the average annual income is less than 6 lakhs and for Tata the average annual income is between 4 - 8 lakhs.

1.8.2 FACTORS OF CUSTOMER SATISFACTION ON CAR PURCHASE

The following section discusses the descriptive analysis of factors namely external design, quality, performance, sales capability and service capability; customer satisfaction and customer ranking of attributes for the overall sample.

External design:

'External design' parameters are in positive side i.e. customers are satisfied with the External design of Passenger cars. The highest mean is recorded for the appearance of passenger cars (mean=4.27) and comparatively low mean values are observed for the side view of the Passenger cars (mean=3.67) and rear view of the passenger cars (mean=3.68). The front view of the passenger cars is found to be good according to the respondents (mean=3.83). The overall mean for 'External design' factor with respect to the Passenger cars is 3.86 which is fairly a good and positive score.

Table 1.2 Customer Satisfaction towards External design of Passenger cars (N=1000)

Variables	1	2	3	4	5	Mean	S.D.
Appearance	10 (1.0)	16 (1.6)	21 (2.1)	617 (61.7)	336 (33.6)	4.27	0.584
Front view	12 (1.2)	17 (1.7)	206 (20.6)	659 (65.9)	106 (10.6)	3.83	0.630
Side view	24 (2.4)	59 (5.9)	286 (28.6)	490 (49.0)	141 (14.1)	3.67	0.839
Rear view	20 (2.0)	84 (8.4)	262 (26.2)	466 (46.6)	168 (16.8)	3.68	0.918
Overall 'External design'						3.86	0.518

NOTE: The values specified in the brackets represent percentages

Anchors: 1 – 'Highly Dissatisfied'; 2 – 'Dissatisfied'; 3 – 'Neither Satisfied nor Dissatisfied'; 4 – 'Satisfied'; 5 – 'Highly Satisfied'

'Appearance' found to be high for Tata cars (mean=4.33) and the rest of the variables are found high for Maruti cars. It is inferred that Tata cars found to be good in 'Appearance' and

Maruti cars found to be good with respect to ‘Front view’, ‘Side view’ and ‘Rear view’. The overall satisfaction on ‘External design’ found to be high for Maruti cars (mean=3.95) compared with Tata cars (mean = 3.77).

Table 1.3 Summary of ‘External design’ across different Samples

‘External design’ Variables	Total Sample (N=1000)		Maruti (N=500)		Tata (N=500)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Appearance	4.27	0.584	4.18	0.506	4.33	0.649
Front view	3.83	0.630	3.95	0.608	3.72	0.631
Side view	3.67	0.839	3.88	0.855	3.45	0.765
Rear view	3.68	0.918	3.77	0.939	3.59	0.890
Overall design’	3.86	0.518	3.95	0.533	3.77	0.487

Quality

Respondents are highly satisfied with the ‘Engine’ of the passenger cars (mean=3.88) followed by ‘AC system’ (mean=3.77). The respondents found to be less satisfied with the ‘Paint’ of passenger cars (mean=3.58). The rest of the factors namely electronic equipment, steering system, wheels & tyres, interiors and ground clearance level displayed moderate mean values ranging from 3.60 to 3.65. The overall mean for ‘Quality’ factor is 3.67.

Table 1.4 Customer Satisfaction towards ‘Quality’ of Passenger cars (N=1000)

Variables	1	2	3	4	5	Mean	S.D.
Engine	19 (1.9)	30 (3.0)	188 (18.8)	578 (57.8)	185 (18.5)	3.88	0.778
AC System	13 (1.3)	71 (7.1)	228 (22.8)	528 (52.8)	160 (16.0)	3.77	0.795
Electronic Equipment	14 (1.4)	80 (8.0)	297 (29.7)	500 (50.0)	109 (10.9)	3.61	0.829
Steering System	20 (2.0)	108 (10.8)	281 (28.1)	418 (41.8)	173 (17.3)	3.62	0.959
Wheels & Tyres	22 (2.2)	125 (12.5)	227 (22.7)	453 (45.3)	173 (17.3)	3.63	0.981
Interiors	10	97	290	442	161	3.65	0.895

	(1.0)	(9.7)	(29.0)	(44.2)	(16.1)		
Paint	13 (1.3)	102 (10.2)	305 (30.5)	452 (45.2)	128 (12.8)	3.58	0.882
Ground Clearance Level	38 (3.8)	96 (9.6)	221 (22.1)	522 (52.2)	123 (12.3)	3.60	0.953
Overall 'Quality'						3.67	0.489

NOTE: The values specified in the brackets represent percentages

Anchors: 1 – 'Highly Dissatisfied'; 2 – 'Dissatisfied'; 3 – 'Neither Satisfied nor Dissatisfied'; 4 – 'Satisfied'; 5 – 'Highly Satisfied'

Maruti car sample exhibits high mean values for all the 'Quality' variables compared with the Tata car sample. Thus, it is inferred that respondents are highly satisfied with the 'Quality' of Maruti cars (mean=3.83). The Tata car respondents display lower mean value (3.51) compared with the Maruti car respondents.

Table 1.5 Summary of 'Quality' across different Samples

'Quality' Variables	Total Sample (N=1000)		Maruti (N=500)		Tata (N=500)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Engine	3.88	0.778	4.02	0.629	3.74	0.879
AC System	3.77	0.795	3.90	0.725	3.61	0.831
Electronic Equipment	3.61	0.829	3.83	0.745	3.40	0.854
Steering System	3.62	0.959	3.80	0.850	3.43	1.023
Wheels & Tyres	3.63	0.981	3.80	0.980	3.46	0.954
Interiors	3.65	0.895	3.76	0.852	3.53	0.922
Paint	3.58	0.882	3.73	0.806	3.43	0.929
Ground Clearance Level	3.60	0.953	3.73	0.953	3.47	0.935
Overall 'Quality'	3.67	0.489	3.82	0.423	3.51	0.500

Performance

Table 1.6 Customer Satisfaction towards 'Performance' of Passenger cars (N=1000)

Variables	1	2	3	4	5	Mean	S.D.
Power	11	62	190	571	166	3.84	0.780

	(1.1)	(6.2)	(19.0)	(57.1)	(16.6)		
Brakes	20 (2.0)	83 (8.3)	202 (20.2)	515 (51.5)	180 (18.0)	3.75	0.868
Clutch	11 (1.1)	73 (7.3)	267 (26.7)	479 (47.9)	170 (17.0)	3.72	0.830
Suspension System	13 (1.3)	100 (10.0)	274 (27.4)	480 (48.0)	133 (13.3)	3.62	0.860
Fuel Consumption	27 (2.7)	98 (9.8)	220 (22.0)	440 (44.0)	215 (21.5)	3.72	0.994
Maintenance	15 (1.5)	84 (8.4)	237 (23.7)	522 (52.2)	142 (14.2)	3.69	0.869
Driving Comfort	10 (1.0)	89 (8.9)	231 (23.1)	512 (51.2)	158 (15.8)	3.72	0.867
Overall 'Performance'						3.72	0.531

NOTE: The values specified in the brackets represent percentages

Anchors: 1 – 'Highly Dissatisfied'; 2 – 'Dissatisfied'; 3 – 'Neither Satisfied nor Dissatisfied'; 4 – 'Satisfied'; 5 – 'Highly Satisfied'

Respondents are highly satisfied with 'power' (mean=3.84) and brakes (mean=3.75). Respondents displayed moderate level of satisfaction on the variables namely driving comfort (mean=3.72), clutch (mean=3.72) and fuel consumption (mean=3.72). Comparatively low mean values are recorded for the variables suspension system (mean=3.62) and maintenance (mean=3.69). The overall 'Performance' score of passenger cars is 3.72

Table 1.7 Summary of 'Performance' across different Samples

'Performance' Variables	Total Sample (N=1000)		Maruti Cars (N=500)		Tata Cars (N=500)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Power	3.84	0.780	4.04	0.547	3.62	0.906
Brakes	3.75	0.868	3.90	0.882	3.61	0.830
Clutch	3.72	0.830	3.90	0.649	3.55	0.945
Suspension System	3.62	0.860	3.70	0.821	3.54	0.891
Fuel Consumption	3.72	0.994	3.95	0.855	3.49	1.068
Maintenance	3.69	0.869	3.92	0.741	3.46	0.926
Driving Comfort	3.72	0.867	3.98	0.713	3.46	0.931
Overall 'Performance'	3.72	0.531	3.92	0.423	3.53	0.557

From the table, it is observed that Maruti car sample exhibits high mean values for all the 'Performance' variables compared with Tata car sample. Thus, it is inferred that respondents are highly satisfied with the 'Performance' of Maruti cars (mean=3.92). The Tata car sample displays lower mean value (3.53) compared with the Maruti car sample

Sales Capability

Table 1.8 Customer Satisfaction towards 'Sales Capability' of showrooms (N=1000)

Variables	1	2	3	4	5	Mean	S.D.
Price	18 (1.8)	81 (8.1)	181 (18.1)	575 (57.5)	145 (14.5)	3.75	0.818
Showroom Equipment	28 (2.8)	58 (5.8)	319 (31.9)	524 (52.4)	71 (7.1)	3.55	0.814
On Time Vehicle Delivery	26 (2.6)	83 (8.3)	282 (28.2)	537(53.7)	72(7.2)	3.55	0.845
New Car Condition	20 (2.0)	69 (6.9)	252 (25.2)	463 (46.3)	196(19.6)	3.76	0.886
Staff Responsiveness	13 (1.3)	84 (8.4)	325 (32.5)	494 (49.4)	84(8.4)	3.55	0.814
Attractive Display of Products	15 (1.5)	128(12.8)	266 (26.6)	476 (47.6)	115(11.5)	3.55	0.908
Test Drive Facility	54 (5.4)	79 (7.9)	263 (26.3)	489 (48.9)	115(11.5)	3.54	0.972
Overall 'Sales Capability'						3.61	0.482

NOTE: The values specified in the brackets represent percentages

Anchors: 1 – 'Highly Dissatisfied'; 2 – 'Dissatisfied'; 3 – 'Neither Satisfied nor Dissatisfied'; 4 – 'Satisfied'; and 5 – 'Highly Satisfied'

The highest mean of satisfaction is recorded for the 'New car condition' (mean=3.76) followed by 'Price' (mean=3.75). The respondents expressed their satisfaction with 'Show room equipment' (mean=3.55), 'on time delivery' (mean=3.55), 'attractive display of products' (mean=3.55) and 'Staff responsiveness' (mean=3.55) while purchasing cars. The respondents are comparatively less satisfied with the 'Test drive facility' (mean=3.54). The overall mean value for 'Sales Capability' is 3.61, which is fairly good.

Table 1.9 Summary of 'Sales Capability' across different Samples

'Sales Capability'	Total Sample	Maruti	Tata
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Variables	(N=1000)		(N=500)		(N=500)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Price	3.75	0.818	3.94	0.705	3.56	0.877
Showroom Equipment	3.55	0.814	3.68	0.746	3.43	0.859
On Time Vehicle Delivery	3.55	0.845	3.66	0.801	3.43	0.873
New Car Condition	3.76	0.886	3.97	0.644	3.55	1.031
Staff Responsiveness	3.55	0.814	3.68	0.769	3.42	0.838
Attractive Display of Products	3.55	0.908	3.68	0.806	3.41	0.982
Test Drive Facility	3.54	0.972	3.72	0.891	3.35	1.012
Overall 'Sales Capability'	3.61	0.482	3.76	0.409	3.45	0.497

From the table 1.9 , it is observed that Maruti car sample exhibits high mean values for all the 'Sales Capability' variables compared with the Tata car sample. Thus, it is inferred that respondents are highly satisfied with the 'Sales Capability' of Maruti cars (mean=3.76). Tata car respondents displayed very low mean value (3.45) compared with Maruti car respondents.

Service Capability

The highest mean of satisfaction is recorded for the 'Service Facility' (mean=3.77) followed by 'Parts availability' (mean=3.70). The respondents expressed their satisfaction with 'Timely response' (mean=3.53), 'Service Quality' (mean=3.50), and 'Staff response' (mean=3.41), while purchasing and availing service for passenger cars. Low mean values are observed for 'Availability of trained staff' (mean=3.38) and 'Service charges' (mean=3.35). The overall mean of 'Service Capability' for the entire sample of the present study is 3.52.

Table 1.10 *Customer Satisfaction towards Service Capability* (N=1000)

Variables	1	2	3	4	5	Mean	S.D.
Service Facility	17 (1.7)	75 (7.5)	202 (20.2)	545 (54.5)	161 (16.1)	3.77	0.792
Parts Availability	17 (1.7)	66 (6.6)	271 (27.1)	508 (50.8)	138 (13.8)	3.70	0.816
Timely Service	13 (1.3)	121 (12.1)	293 (29.3)	469 (46.9)	104 (10.4)	3.53	0.880
Service Quality	19 (1.9)	122 (12.2)	284 (28.4)	493 (49.3)	82 (8.2)	3.50	0.879
Staff Response	58 (5.8)	70 (7.0)	337 (33.7)	471 (47.1)	64 (6.4)	3.41	0.927
Service Charges	32	162	299	436	71	3.35	0.942

	(3.2)	(16.2)	(29.9)	(43.6)	(7.1)		
Availability of Trained Staff	40 (4.0)	139 (13.9)	324 (32.4)	410 (41.0)	87 (8.7)	3.38	0.938
Overall 'Service Capability'						3.52	0.541

NOTE: The values specified in the brackets represent percentages

Anchors: 1 – 'Highly Dissatisfied'; 2 – 'Dissatisfied'; 3 – 'Neither Satisfied nor Dissatisfied'; 4 – 'Satisfied'; and 5 – 'Highly Satisfied'

Table 1.11 Summary of 'Service Capability' across different Samples

'Service Capability' Variables	Total Sample (N=1000)		Maruti (N=500)		Tata (N=500)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Service Facility	3.77	0.792	3.92	0.625	3.60	0.900
Parts Availability	3.70	0.816	3.86	0.638	3.52	0.929
Timely Service	3.53	0.880	3.80	0.746	3.26	0.920
Service Quality	3.50	0.879	3.62	0.846	3.37	0.894
Staff Response	3.41	0.927	3.49	0.910	3.34	0.939
Service Charges	3.35	0.942	3.56	0.758	3.14	1.054
Availability of Trained Staff	3.38	0.938	3.57	0.772	3.18	1.041
Overall 'Service Capability'	3.52	0.541	3.69	0.450	3.35	0.567

From the table 1.11, it is observed that Maruti car sample exhibits high mean values for all the 'Service Capability' variables compared with Tata car sample. Thus, it is inferred that respondents are highly satisfied with the 'Service Capability' of Maruti cars (mean=3.70). Tata car respondents display very low mean value (3.35) compared with Maruti car respondents.

Customer Satisfaction towards Passenger Cars

Most feel good about of the respondents their cars (mean=4.27) and some of the respondents reveal their proud feeling of having a particular brand of car (mean=3.32). Comparatively low mean is recorded for the statement "I am satisfied with my car" (mean=2.79). Lot of difference exists among the mean score for the three statements asked in the questionnaire. The overall customer satisfaction on passenger car secured a mean value of 3.48.

Table 1.12 Overall 'Customer Satisfaction' towards Passenger Cars (N=1000)

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Statements	1	2	3	4	5	Mean	S.D.
I am satisfied with my car	30 (3.0)	157 (15.7)	418 (41.8)	309 (30.9)	86 (8.6)	2.79	0.493
I feel good about my Car	30 (3.0)	120 (12.0)	127 (12.7)	406 (40.6)	317 (31.7)	4.27	0.534
I am proud to have this Car	31 (3.1)	110 (11.0)	282 (28.2)	448 (44.8)	129 (12.9)	3.32	0.546
Overall ‘Customer Satisfaction’						3.48	0.542

NOTE: The values specified in the brackets represent percentages

anchors: 1 – ‘Highly Dissatisfied’; 2 – ‘Dissatisfied’; 3 – ‘Neither Satisfied nor Dissatisfied’; 4 – ‘Satisfied’; and 5 – ‘Highly Satisfied’

Maruti Car sample exhibits high mean values for all the statements of ‘Customer Satisfaction’ variables compared with Tata car sample. Thus, it is inferred that respondents are highly satisfied with Maruti cars (mean=3.68).

Table 1.13 Summary of ‘Customer Satisfaction’ across different Samples

Statements	Total Sample (N=1000)		MARUTI (N=500)		TATA (N=500)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
I am satisfied with my car	2.79	0.493	3.38	0.394	3.18	0.535
I feel good about my Car	4.27	0.534	3.95	0.498	3.77	0.508
I am proud to have this Car	3.32	0.546	3.71	0.500	3.36	0.523
Overall ‘Customer Satisfaction’	3.48	0.542	3.68	0.443	3.44	0.516

Maruti sample respondents exhibit higher mean values across all the variables that are considered in the present study over Tata sample respondents. Thus, it is concluded that Maruti Cars are giving more satisfaction to the customers.

Table 1.14 Overview of Variables and their Mean distribution

Factors of Customer Satisfaction	Total Sample		Maruti		Tata	
	Mean	S.D.	Mean	S.D.	Mean	S.D.

External design	3.86	0.518	3.95	0.533	3.77	0.487
Quality	3.67	0.489	3.83	0.423	3.51	0.500
Performance	3.72	0.531	3.92	0.423	3.53	0.557
Sales Capability	3.61	0.482	3.76	0.409	3.45	0.497
Service Capability	3.52	0.541	3.70	0.450	3.35	0.567
Customer Satisfaction	3.48	0.542	3.73	0.443	3.23	0.516

1.8.2 HYPOTHESES TESTING

H₀1: Customer Satisfaction towards Maruti and Tata motor Cars is independent of Age.

‘External design’ factor is high for the age group ‘Below 30 years’ (Mean=3.91) and is low for the age group ‘Above 45 years’ (mean=3.80). The ‘Quality’ factor is observed high for the age group ‘Below 30 years’ (mean=3.81) and is low for the age group ‘Above 45 years’ (mean=3.56). The ‘Performance’ factor is observed high for the age group ‘Below 30 years’ (mean=3.91) and is found to be low for the age group ‘Above 45 years’ (mean=3.46). The ‘Sales Capability’ factor is observed high for the age group ‘Below 30 years’ (mean=3.68) and is found to be low for the age group ‘Above 45 years’ (mean=3.47).

Table 1.15 Impact of Age on Customer Satisfaction towards Passenger Cars (N=1000)

Age of the respondents	Below 30 Years (n=295)		30 - 45 Years (n=469)		Above 45 Years (n=236)		Chi-Square test Results	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Value	Sig.
External design	3.91	0.584	3.87	0.480	3.80	0.498	188.649	0.000*
Quality	3.81	0.428	3.64	0.490	3.56	0.519	261.868	0.000*
Performance	3.91	0.453	3.74	0.516	3.46	0.544	224.593	0.000*
Sales Capability	3.68	0.438	3.63	0.453	3.47	0.556	181.437	0.000*
Service Capability	3.63	0.427	3.51	0.536	3.40	0.644	257.980	0.000*
Customer Satisfaction	3.69	0.464	3.43	0.529	3.32	0.582	75.002	0.000*

Cars							
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*Note: * indicates insignificant at 95% confidence level*

The ‘Service Capability’ factor is observed high for the age group ‘Below 30 years’ (mean=3.63) and is found to be low for the age group ‘Above 45 years’ (mean=3.40). The Overall Customer Satisfaction towards Passenger Cars is observed high for the age group ‘Below 30years’ (mean=3.69) and is found to be low for the age group ‘Above 45 years’ (mean=3.32). The mean distribution clearly indicated a trend of decrease in satisfaction levels with the increase in age of the respondents.

All the factors of customer satisfaction and customer satisfaction on Passenger cars found significant p values ($p=0.000<0.05$). This clearly indicates that there is a statistical significant relationship exists between age group of the respondents and customer satisfaction.

Hence, H_01 is rejected

H₀₂: Customer Satisfaction towards Maruti and Tata motor Cars is independent of family size.

‘External design’ factor is high for the respondents with Family size ‘ ≤ 3 members’ (mean=3.95) and is low for the respondents with Family size ‘ ≥ 5 members’ (mean=3.68). The ‘Quality’ factor is observed high for the respondents with Family size ‘ ≤ 3 members’ (mean=3.78) and is low for the respondents with Family size ‘ ≥ 5 members’ (mean=3.47). The ‘Performance’ factor is observed high for the respondents with Family size ‘ ≤ 3 members’ (mean=3.88) and is found to be low for the respondents with Family size ‘ ≥ 5 members’ (mean=3.46). The ‘Sales Capability’ factor is observed high for the respondents with Family size ‘ ≤ 3 members’ (mean=3.77) and is found to be low for the respondents with Family size ‘ ≥ 5 members’ (mean=3.39). The ‘Service Capability’ factor is observed high for the respondents with Family size ‘ ≤ 3 members’ (mean=3.69) and is found to be low for the respondents with Family size ‘ ≥ 5 members’ (mean=3.31). The Overall Customer Satisfaction towards Passenger Cars is observed high for the respondents with Family size ‘ ≤ 3 members’ (mean=3.67) and is found to be low for the respondents with Family size ‘ ≥ 5 members’ (mean=3.28).

Table 1.16 *Chi-Square test results on Family size vs. Customer Satisfaction towards Passenger Cars (N=1000)*

Family Size of the respondents	< = 3 members (n=337)		4 members (n=487)		> = 5 members (n=176)		Chi-Square test Results	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Value	Sig.
External design	3.95	0.559	3.87	0.445	3.68	0.577	114.865	0.000*
Quality	3.78	0.472	3.66	0.471	3.47	0.506	231.730	0.000*
Performance	3.88	0.487	3.71	0.540	3.46	0.471	208.275	0.000*
Sales Capability	3.77	0.481	3.57	0.450	3.39	0.465	202.517	0.000*
Service Capability	3.69	0.482	3.48	0.541	3.31	0.554	221.763	0.000*
Customer Satisfaction on Cars	3.67	0.489	3.42	0.542	3.28	0.533	71.821	0.000*

*Note: * indicates insignificant at 95% confidence level*

It is observed that the entire variables found statistically significant with the family size ($p=0.000<0.05$) at 95% confidence level. It is concluded from the Chi-Square test that customer satisfaction on Passenger cars is dependent on family size of the respondents.

Thus, H_02 is rejected

H₀₄: Customer Satisfaction towards Maruti and Tata motor Cars is independent of Occupation.

‘Government Employees’ respondents display high mean values across all the variables including overall customer satisfaction on Passenger cars, except for ‘Performance’ factor. ‘Private Employees’ display low mean values across all the factors of customer satisfaction and also for overall customer satisfaction on Passenger cars. ‘Self-employed’ respondents display moderate values across all the factors and exhibit high mean for ‘Performance’ factor.

Table 1.18 Chi-Square test results on Occupation vs. Customer Satisfaction towards Passenger Cars (N=1000)

Occupation of the respondents	Self Employed (n=365)		Private Employee (n=418)		Government Employee (n=217)		Chi-Square test Results	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Value	Sig.
External design	3.87	0.573	3.80	0.506	3.96	0.421	103.164	0.000*

Quality	3.68	0.554	3.59	0.433	3.80	0.441	225.414	0.000*
Performance	3.81	0.540	3.65	0.524	3.73	0.506	236.018	0.000*
Sales Capability	3.64	0.507	3.50	0.466	3.76	0.413	214.553	0.000*
Service Capability	3.59	0.506	3.41	0.564	3.63	0.513	238.173	0.000*
Customer Satisfaction on Cars	3.49	0.543	3.38	0.550	3.66	0.474	39.987	0.000*

* Significant at 95% confidence level

From the table 1.18, it is noticed that all the p values for all the factors of customer satisfaction and overall customer satisfaction on Passenger cars found significant at 95% confidence level ($p=0.000 < 0.05$). Hence, it is concluded from the test results that customer satisfaction on Passenger cars is not independent of Occupation of the respondents.

H₀4 is rejected.

H₀5: Customer Satisfaction towards Maruti and Tata motor Cars is independent of income level.

Table 1.19 Mean distribution between Income Level and Customer Satisfaction on Cars

Income Level of the respondents	< 4 Lakhs (n=286)		4 - 6 Lakhs (n=375)		6 - 8 Lakhs (n=172)		> 8 Lakhs (n=167)	
	Mean	S. D.	Mean	S. D.	Mean	S. D.	Mean	S. D.
External design	3.94	0.427	3.83	0.550	3.76	0.621	3.90	0.445
Quality	3.82	0.395	3.58	0.486	3.53	0.561	3.75	0.476
Performance	3.92	0.406	3.63	0.552	3.49	0.551	3.84	0.508
Sales Capability	3.75	0.404	3.50	0.502	3.45	0.466	3.75	0.463
Service Capability	3.68	0.484	3.41	0.549	3.38	0.573	3.64	0.486
Customer Satisfaction on Cars	3.71	0.456	3.33	0.562	3.28	0.490	3.65	0.490

‘External design’ factor is high for the respondents with income level ‘<4 lakhs’ (mean=3.94) and is low for the respondents with income level ‘6 – 8 lakhs’ (mean=3.76). ‘Quality’ factor is observed high for the respondents with income level ‘<4 lakhs’ (mean=3.82) and is low for the respondents with income level ‘6 - 8 lakhs’ (mean=3.53). ‘Performance’ factor is observed high for the respondents with income level ‘<4 lakhs’ (mean=3.92) and is found to be low for the respondents with income level ‘6 – 8 lakhs’ (mean=3.49). ‘Sales Capability’ factor is high for the respondents with income level ‘<4 lakhs’ (mean=3.75) and is low for the respondents with income level ‘6 - 8 lakhs’

(mean=3.45). ‘Service Capability’ factor is observed high for the income level ‘<4 lakhs’ (mean=3.68) and is found to be low for the income level ‘6 – 8 lakhs’ (mean=3.28).

The Overall Customer Satisfaction on Passenger Cars is high for the respondents with income level ‘<4 Lakhs’ (mean=3.71) and is found to be low for the respondents with income level ‘6 – 8 lakhs’ (mean=3.28). The distribution of mean displays a logical sequence of decreasing satisfaction on all the factors considered with the increase in income level of the respondents. From the table it is noticed that all the p values are less than 0.05. Hence, it is concluded that there is statistical significant relationship exist between Income of the respondents and Satisfaction on Passenger cars at 95% confidence level.

Table 1.20 *Chi-Square test results on Income vs. Customer Satisfaction towards Passenger Cars*

Income vs. Customer Satisfaction	Chi-Square (χ^2)	
	Value	Sig.
External design	202.489	0.000*
Quality	306.526	0.000*
Performance	285.475	0.000*
Sales Capability	235.512	0.000*
Service Capability	266.748	0.000*
Customer Satisfaction on Passenger cars	128.146	0.000*

* Significant at 95% confidence level

Hence, H_0 is rejected.

H_0 : There is no significant difference in customer satisfaction between Maruti and Tata Motor cars.

It is noticed that Maruti Car respondents have high mean scores when compared with Tata Car respondents for all the factors of customer satisfaction. The overall customer satisfaction score is high for Maruti respondents (mean = 3.73) than Tata respondents (Mean = 3.23).

Table 1.22 *Difference in Customer satisfaction across Maruti and Tata*

Car Brands	Maruti (n=500)		Tata (n=500)		Total (ns=1000)		Z Value	Sig. (2-tailed)
	Mea	S. D.	Mea	S. D.	Mea	S. D.		

	n		n		n			
External design	3.95	0.533	3.77	0.487	3.86	0.518	5.575	<0.0001*
Quality	3.83	0.422	3.51	0.500	3.67	0.489	10.936	<0.0001*
Performance	3.92	0.423	3.53	0.557	3.72	0.530	12.469	<0.0001*
Sales Capability	3.76	0.409	3.45	0.497	3.61	0.481	10.770	<0.0001*
Service Capability	3.70	0.450	3.35	0.567	3.52	0.541	11.121	<0.0001*
Customer Satisfaction	3.73	0.443	3.23	0.516	3.48	0.542	16.440	<0.0001*

Note: * significant at 95% confidence level

Considering the Z and p values, it is noticed that all the p values are significant ($p < 0.05$) at 95% confidence level. This indicates that there are differences between Maruti and Tata car respondents with respect to their satisfaction. It is inferred that Maruti car respondents are highly satisfied with their car than Tata car respondents.

H₀₇ is rejected

SUMMARY

From the analysis made in this chapter, all the independent variables considered namely age, family size, educational qualification, occupation, income level and years of ownership, found having significant relationship with the dependent variable i.e., Customer satisfaction towards Passenger Cars. Further, the null hypothesis framed to test the comparison between two samples found insignificant and regression analysis carried to test the relationship of external design, quality, performance, sales capability, service capability towards customer satisfaction found significant.

1.9 Findings:

The coded quantitative data were taken into a computer using the statistical package for social sciences (SPSS 17.0) program guidelines. The data were then analysed in a systematic manner. Descriptive statistics were used to describe the sample in a meaningful manner. Z-test and F-test were carried to establish the differences between the mean scores of various groups that represent the sample. Linear regression analysis was carried to establish the relationship between customer satisfaction factors and customer satisfaction. Chi-square test was administered to identify the relationship between expected and observed values. Based on the research question framed for the present study, the following major findings are presented in detail:

Age:

The study has found significant statistical relationship between age and customer satisfaction. It is found that majority of the respondents are in the age group of '30 -45 years'. The major respondents are below 45 years for Maruti and above 30 years for Tata Motors. Respondents who are above 45 years have shown low mean values on customer satisfaction.

Family size:

Family size found mixed relationship with customer satisfaction in the present study. There is no significant relationship between customer satisfaction and family size for the Maruti sample on car purchase. At the same time it is observed that there is a statistical relationship between customer satisfaction and family size for Tata Motors sample and total sample. From the survey it is found that 48.7% of the total population belongs to a family size of 4 members. Majority of the Maruti respondents are in the family size of less than or equal to 4 members and majority of the Tata Motor respondents are in the family size of above 4 members. Respondents with a family size of five or more exhibited low mean values.

Occupation:

The present study observed significant statistical relationship between occupation and customer satisfaction. From the survey it is found that majority of the respondents (41.8%) are private employees. 72% of the Maruti respondents are either private employees or self employed. 84.6% of Tata Motor users are either private employees or self employed. Private employees are the least satisfied category among all the categories.

Income level:

From the analysis it is found that there is a statistical significant relationship between income level and customer satisfaction. From the study it is found that majority of the customers (37.5 %) are having an annual income of '4 – 6 lakhs'. It is observed that the average annual income of Maruti car users is less than 6 lakhs and the average annual income of Tata Motor car users is between '4 & 8 lakhs'. Respondents with an annual income of '6 – 8 lakhs' are the least satisfied category among the four categories.

External Design:

Highest mean values are observed for the variable appearance by both Maruti (4.18) and Tata (4.33) car users. Rear view is given the lowest mean value by Maruti car users (3.77), Tata car users gave the lowest mean value for side view (3.45).

Quality:

The highest mean values are recorded for the variable 'Engine Quality' by both Maruti and Tata respondents. The lowest mean values are recorded for the variable 'Paint Quality' by both Maruti and Tata respondents.

Performance:

The highest mean values are given to the performance variable 'Power' by both Maruti and Tata car respondents. Maruti respondents gave the lowest mean value to the performance variable 'clutch' and Tata respondents gave the lowest mean value to the performance variables 'maintenance and driving comfort'.

Sales Capability:

Maruti customers exhibited highest mean value to the variable 'new car condition' and Tata customers exhibited highest mean value to the variable 'price'. Maruti and Tata Motor customers exhibited lowest mean value to the variable 'Test drive facility'.

Service Capability:

Both Maruti and Tata respondents accorded the highest mean value to the variable 'service facility'. Both Maruti and Tata respondents accorded the lowest mean value to the variable 'service charges'

The findings of the present study are note worthy and fill the research gap that has been identified in the review of literature. The findings will immensely help the car manufacturers who believe that it is the customer satisfaction that benefits an organization in many ways.

1.10 Suggestions:

- Respondents are not happy with the side view, rear view of the passenger cars though they are satisfied with the external design of their cars. Redesigning of Maruti and Tata cars will make the cars more attractive and competitive. This helps them to excel in the market and to handle the competition arising from the International manufacturers.
- Maruti respondents are dissatisfied with ground clearance level, paint quality, and interiors. Tata respondents are dissatisfied with electronic equipment, steering system, paint quality and wheels & tyres. Maruti and Tata have to concentrate on the above areas to make them more competitive and to deliver higher quality to their customers.



- The respondents of Maruti are not satisfied with suspension system, clutch and breaks. The respondents of Tata are highly dissatisfied with driving comfort, maintenance and fuel consumption. Maruti and Tata Motors have to pay attention on the above attributes to overcome from the said deficiencies. This will enhance the good will and reputation of Maruti and Tata and make them globally competitive.
- Maruti respondents are not satisfied with on-time delivery of the vehicle, new car condition, showroom equipment and display of products. Tata respondents are highly dissatisfied with test drive facility, display of products and staff responsiveness. Maruti and Tata Motors have to pay lot of attention to training and development programs to make the staff more effective. To enhance the sales capability many additional facilities have to be incorporated in the showrooms of Maruti and Tata Motors.
- Maruti respondents are dissatisfied with service charges, availability of trained staff, staff response and service quality. The respondents of Tata are highly dissatisfied with service charges, availability of trained staff, timely service and staff response. Maruti and Tata have to take many initiatives in making their service capability world class.
- Respondents above 45 years are the least satisfied group. Relatively their association with the car is more. They purchased cars long time back. To make these respondents more happy organizations have to provide some special offers namely discounts on servicing, next purchase offers, incentives for using the car for long periods.
- Respondents with a family size of five or more than five are not satisfied with their cars. Most of the Maruti and Tata cars are of A1, A2, A3 categories and do not have versions with higher width. A special model that can fulfil the needs of this particular market will ensure great demand among families with a size of five or more than five.
- Respondents in the graduate category are the least satisfied among the respondents. Most of these people are relatively young and are looking for advanced features which they see in International brands. Incorporating global features in Maruti and Tata cars will make them more attractive and competitive.
- Maruti's presence in the premiere segment is not strong. The users with the income of above six lakhs are looking for International brands. Maruti has to fulfil this particular segment by introducing sophisticated models to cater to the needs of high income level people to retain its market leadership for a long period. Tata launched their vehicles with the concept of cheaper price and operating economics. Unfortunately their strategy did not work to the expectations of the company and very people with the income of four lakhs and below opted Tata cars. Tata has to revamp its overall strategy in this particular segment to have a reasonably good market share.



- In spite of having world's best technology through the acquisition of JLR, Tata could not deliver quality products in India. The company is using only 30% of its installed capacity. Presently the company has only 460 dealership networks in India. The company stands in sixth position today comparing to its second position five years ago. Tata has to revamp its overall strategy to regain its lost market.

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