Impact of Customer Satisfaction on Profitability of the Indian Automotive Industry – A Case of Select Companies

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1. INTRODUCTION

There are two concepts of the term 'profit' -- the owner-oriented concept and the operational concept. According to the owner-oriented concept, profit refers to that part of the income which is paid to the suppliers of equity capital, who are the owners of the business. In this context it is described as profitability. According to the operational concept, profit refers to a situation, where output exceeds input, which signifies economic efficiency. In this context, as a test of economic efficiency, profit provides the yardstick by which economic performance of a business can be judged. Profit leads to efficient allocation of resources and also ensures maximum social welfare.

Customer satisfaction, as a goal and marketing tool for customer-centred companies, is influenced by the product or service quality of the company and it further influences the profitability of the company. Studies have also shown a high correlation between product or service quality and profitability. Companies need to be concerned about their customer satisfaction levels, because consumers can quickly spread word of mouth — good or bad — to the world through the internet. Achievers of high-customer

satisfaction ratings make use of them as powerful advertising copy for customers, and also to make sure that their target market knows how satisfied their customers are. J.D. Power's customer satisfaction ratings serve as a good tool in this regard.

1.1 Customer Satisfaction:

(a) Value and Satisfaction: The product or service will be successful if it delivers value and satisfaction to the target buyer. The consumers generally prefer those products or services which can give the most perceived value to them. *Value* is the sum total of the perceived tangible and intangible benefits and costs to the customers. It is further called the *"customer value triad - qsp"* which is a combination of quality, service, and price. Both quality and service increase the value of the offering, while price decreases it. Other factors can also have a role to play in customers perceptions of the value. *Satisfaction* refers to the judgements regarding the product's perceived performance by the customers in relation to their expectations. Customers are dissatisfied if the performance falls short of their expectations. They are satisfied if it matches their expectations, and delighted if it exceeds their expectations.

(b) Product and Service Quality: Satisfaction also depends on the quality of a product and/or service. Quality is nothing but the utility or ability of the product and/or service in the light of the needs or expectations of customer. Therefore, we can say that the product or service is a good quality product or service, when it meets or exceeds the customer's expectations. A company which satisfies the maximum number of its customers' needs all the time, is said to be a quality company.

Keeping in mind the importance of customer satisfaction in business today, organisations are now placing customers on top of their organisational structure. Figure 1 depicts a comparison between traditional organisation and modern customer-oriented organisation.
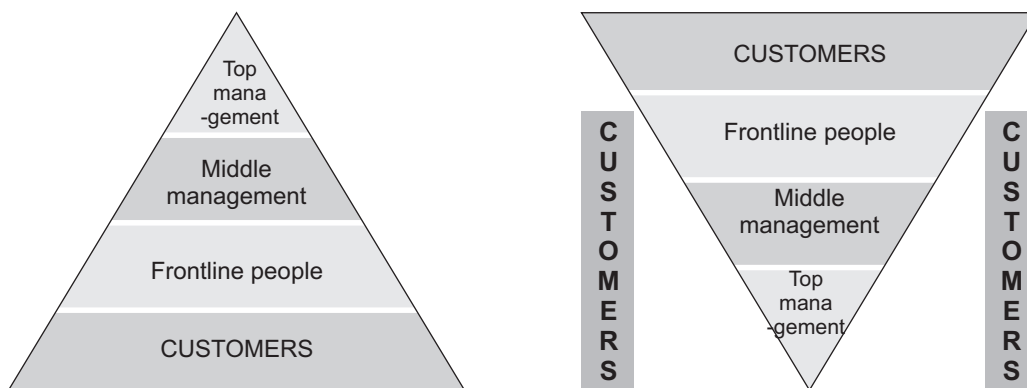
Source: Philip Kotler et al, Marketing Management, 13th edn, Pearson Education (2009)

Figure 1: Traditional Organization vs Modern Customer-Oriented Organization

Since buyers are rational, and have abundant choices in a hypercompetitive economy, a company can win only by choosing, providing, and communicating superior value. Therefore, it is one of the tasks of every business to see that customer value is delivered through products and/or services at a profit while being socially responsible. This is possible when the business considers its customers as an integral part of the organisation, and gives them the top priority in its organisational structure, as the customers are the very basis for existence, survival, and growth of the organization.

1.2. The Indian Automotive Industry:

The Indian automotive industry became the 4th largest in the world with sales increasing by 9.5% year-on-year to 4.02 million units (excluding two wheelers) in 2017. A rise in middle class income and youth population may result in strong growth. Several initiatives by the Government of India and the major automobile players in the Indian market are expected to make India a leader in the two- wheeler and four-wheeler market in the world by 2020.

(a) **Drivers for Growth of the Industry:** The growth of the industry is driven by strengths and strategies in R&D, supply chain, and product diversification, along with advancement in Indian auto component industry in terms of quality, spread, absorption of newer technologies, skilled manpower, and flexibility. In the industry, there are greater opportunities for investment, and direct and indirect employment to skilled and unskilled labour.

(b) **Major Players in the Industry:** The top 10 car makers in India are Maruti Suzuki, Hyundai, Mahindra & Mahindra, Tata Motors, Honda, Toyota, Renault, Ford, Nissan, and Volkswagen. The first five companies are the major players in the industry with a collective market share of almost 85%. Tata Motors, as Asia's largest automobile company in terms of its production of cars, trucks, vans, coaches, and other vehicles, occupies the number one position in the commercial car segment with a market share of 31.2% in the multi-utility vehicles segment. It occupies the fourth position with a market share of 6.4% in the passenger vehicles segment. Maruti Suzuki India Ltd., the leader of the Indian automotive industry, was India's biggest car maker with 51% market share in the passenger vehicles segment during 2017–18. Hyundai occupies the second position with a market share of 16.21%. Mahindra & Mahindra occupies third position with a market share of 7.35%. Honda holds fifth position with a market share of 5.15%.

Car market leader Maruti Suzuki has topped the after-sales customer service satisfaction listing among mass market brands for 16 consecutive years as per global market research firm JD Power.

1.3. Significance of Customer Satisfaction:

Product and/or service quality, customer satisfaction, and company profitability are closely connected. It is well known that higher the quality, the higher the customer satisfaction; higher quality is also connected with higher prices. Lower costs mean higher profits. A satisfied customer by his/her good word of mouth helps the company enhance its goodwill, which brings increased sales and profits. The most profitable company ensures maximum social welfare in terms of qualitative products and services, which in turn maximises customer satisfaction. It is a continuous process, as depicted by the following Figure 2:
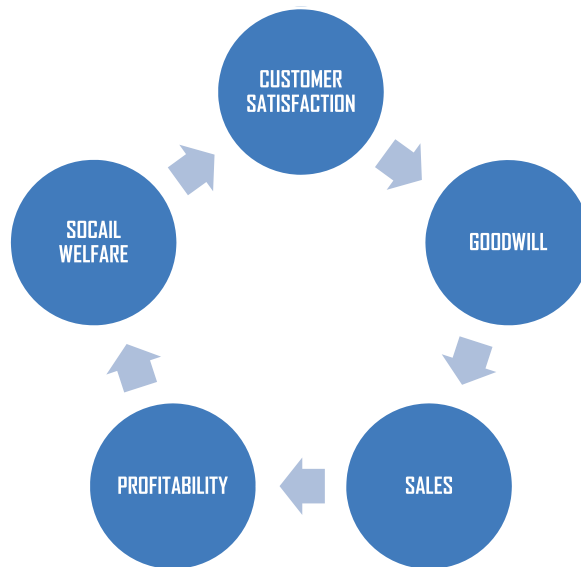
Source: Authors Contribution

Figure 2: Customer Satisfaction and Profitability Cycle

2. LITERATURE REVIEW

Tornow et al (1991), in their study, found a negative correlation between customer satisfaction and gross profits. However, most research results have showed that there is significant association between customer satisfaction and current and future financial performance. Researchers like Nelson et al (1992) have found a positive relationship exists and can be applied to profitability measures such as earnings, net revenues, and return on

assets. Anderson et al. (1994) examined the relationship between customer satisfaction and the profitability of Swiss companies. They found a significantly positive correlation between customer satisfaction and ROA (return on assets). Ittner et al （1998), in their study, have found a positive high degree correlation between customer satisfaction and financial performance, and have also observed the impact of its publication on the stock market. Banker et al. （2000） found a positive correlation between customer satisfaction and financial performance in 18 hotels of a company. They also found an improvement in corporate performance, when non-financial measures were included in payment contracts. K. L. Bernhardt et al (2000), in their study, found no significant relationship between customer satisfaction and financial performance. They also revealed the existence of a significant positive relationship between changes in customer satisfaction and performance of the company. The study also showed that the impact of an increase in customer satisfaction on the profits, is significantly positive in the long run. In a study conducted by P.N.V.V. Satyanarayana, et al (2018), a significant moderate degree of positive correlation between customer satisfaction and profitability of a select company was found. They also found the possibilities of enhancing sales, and thereby profits of company, by enhancing customer satisfaction.

3. OBJECTIVES OF THE STUDY

- To study and analyse the impact of customer satisfaction on the profits of select companies.

- To offer suggestions to enhance profits of the select companies through enhancing customer satisfaction.

4. RESEARCH METHODOLOGY

4.1 Source of Data and Period of the Study:

Secondary sources of data have been used for the purpose of this study. Profits data has been extracted from the annual reports of the companies under study. Customer Satisfaction (Service) Index data has been extracted from JD Power survey reports. A ten year period of study has been considered from 2009 to 2018.

4.2. Data Analysis:

Profits After Tax (PAT) and Customer Satisfaction Index (CSI) of Maruti Suzuki Motors Company, Tata Motors Company and Mahindra & Mahindra Motors Company, from the Indian automotive industry, are the variables of the study. PAT is variable Y and CSI is

variable X. The collected data has been analyzed using Arithmetic Mean, Standard Deviation, Correlation Analysis, Regression Analysis, and t-test to interpret the data.

4.3. Research Hypothesis:

Null Hypothesis is H0: No significant association between profits and customer satisfaction exists.

Alternative Hypothesis is H1: Significant association between profits and customer satisfaction exists.

5. RESULTS AND DISCUSSIONS

This paper takes 3 companies, namely Maruti Suzuki Motors, Tata Motors, and Mahindra & Mahindra Motors from the Indian automotive industry, as an attempt to offer answers to the question: Is customer satisfaction correlated with corporate financial performance? Table 1 depicts profits and customer satisfaction trends of select companies of the Indian automotive industry.

Table 1 : Profits After Tax (PAT) and Customer Satisfaction Index (CSI) of Maruti Suzuki Motors Company, Tata Motors Company and Mahindra & Mahindra Motors Company for a period of 10 years from 2009 to 2018.

	MARUTI		TATA		MAHINDRA	
YEAR	PAT (Rs.Crores)	CSI (Points)	PAT (Rs.Crores)	CSI (Points)	PAT (Rs.Crores)	CSI (Points)
2009	12,187	819	(2,505.25)	758	836.78	786
2010	24,976	849	2,571.06	779	2,087.75	746
2011	22,886	846	9,273.62	779	2,662.10	744
2012	16,352	879	13,516.50	796	2,878.89	798
2013	23,921	876	9,892.61	799	3,352.82	813
2014	27,830	890	13,991.02	834	3,758.35	829
2015	33,112	906	13,986.29	849	3,321.11	846
2016	53,643	901	11,023.75	888	3,204.57	856
2017	73,377	893	11,678.19	893	3,643.39	871
2018	77,218	804	7,556.56	874	4,356.01	865
TOTAL	3,65,502	8,663	90,984.35	8,249	30,101.77	8,154

Source: Companies Annual Reports for PAT & JD Power Survey Reports for CSI

The profits and customers satisfaction trends of Maruti Suzuki Motors can also be presented diagrammatically as depicted in Figures 3 and 4.
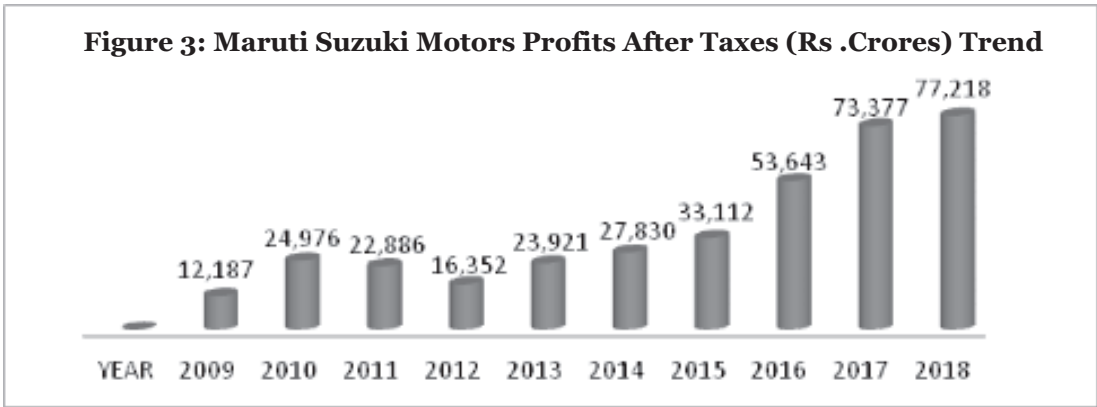
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Figure 3: Maruti Suzuki Motors Profits After Taxes (Rs .Crores) Trend

YEAR	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	12,187	24,976	22,886	16,352	23,921	27,830	33,112	53,643	73,377	77,218

Figure 3: Maruti Suzuki PAT Trend

Figure 4: Maruti Suzuki Motors Customer Satisfaction (Points) Trend

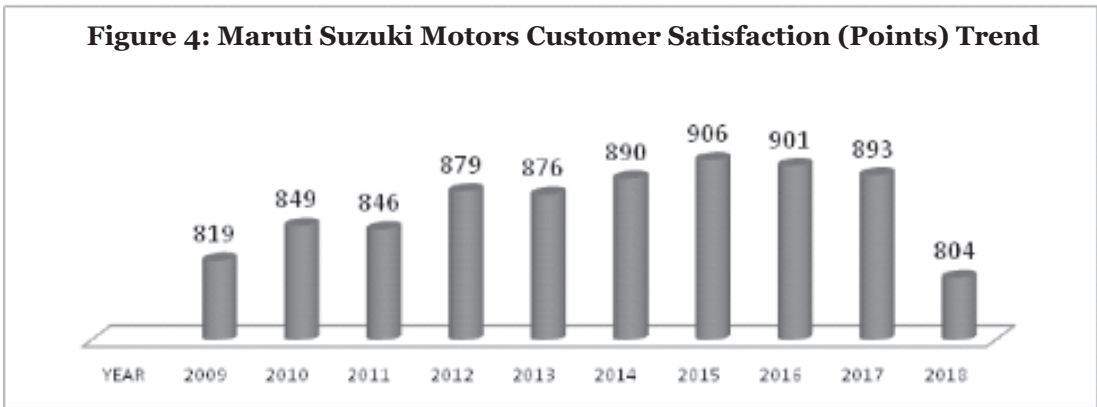| YEAR	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
	819	849	846	879	876	890	906	901	893	804

Figure 4: Maruti Suzuki CSI Trend

From Figures 3 and 4, it was found that Maruti Suzuki Motors recorded increasing PAT from Rs.12,187 crores in 2009 to Rs.77,218 crores in 2018. Like wise, CSI increased from 819 points in 2009 to 906 points in 2015, and thereby showed a decreasing trend.

The profits and customers satisfaction trends of Tata Motors can also be presented diagrammatically as depicted in Figures 5 and 6.
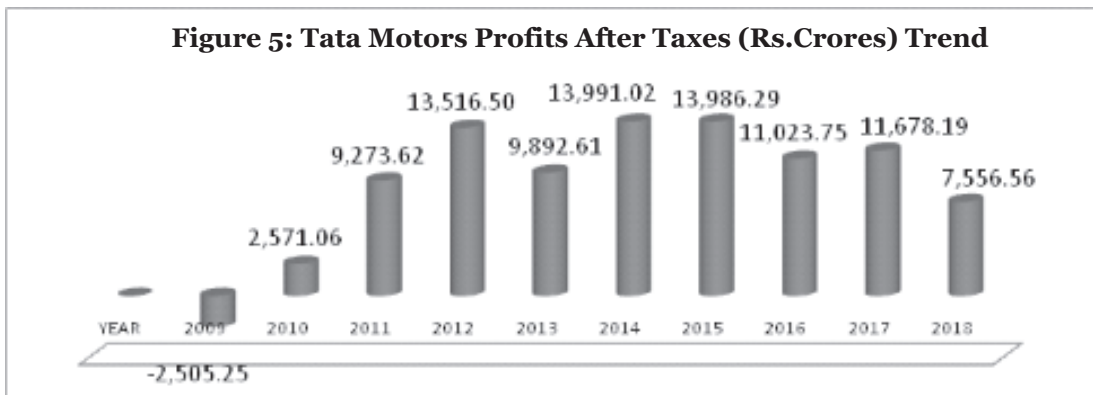
Figure 5: Tata Motors Profits After Taxes (Rs.Crores) Trend

Figure 5: Tata Motors PAT Trend

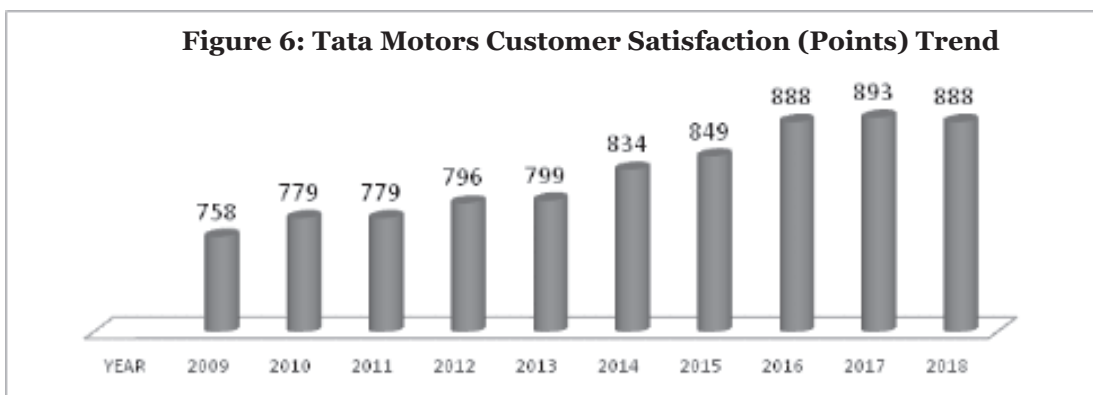**Figure 6: Tata Motors Customer Satisfaction (Points) Trend**

Figure 6: Tata Motors CSI Trend

From Figures 5 and 6, it was found that Tata Motors showed recovery from a Net Loss of Rs.2,505.25 crores in 2009 to Net Profit (PAT) of Rs.13,991.02 crores in 2014, thereby showing a fluctuating profits tred. CSI showed a steady increase from 758 points in 2009 to 893 points in 2017. The fluctuating trend in PAT is said to be due to other factors in spite of a steady CSI.

The profits and customers satisfaction trends of Mahindra & Mahindra Motors can also be presented diagrammatically as depicted in Figures 7 and 8.
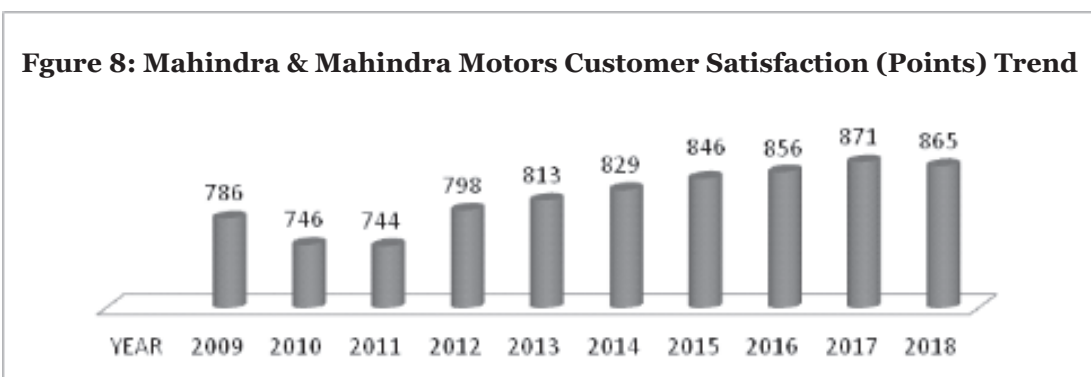
Figure 7: M&M Motors PAT Trend

Figure 8: M&M Motors CSI Trend

From Figures 7 and 8, it can be observed that M & M showed a continuous increasing trend in PAT during the first six years from 2009 to 2014 i.e., Rs.836.78 crores to Rs.3,758.35 crores, which reflects an increase of 450%. It showed a slight down fall in PAT from 2015 to 2017, and thereafter again increased to Rs.4,356.01 crores in 2018. Like wise, there is an increasing trend in CSI from 786 points to 871 points during the period ranging form 2009 to 2017, except in 2010 and 2011, where CSI was a little bit low.

The data in Table 1 is further analysed using statistical tools like Mean, Standard Deviation, Correlation Analysis, t-test, and Regression Analysis. The main purpose of further analaysis is to understand the past average trends of profits and customer satisfaction, and their consistency, relationship between profits and customer satisfaction, and their significance, and the projected future trends of the profits for assumed future trends of customer satisfaction of the select companies Muruti Suzuki Motors Company, Tata Motors Company, and Mahindra & Mahindra Motors Company from the Indian automotive industry. The analysed data is presented in Table 2.

Table 2: Summary of Results of Maruti Suzuki Motors Company, Tata Motors Company and Mahindra & Mahindra Motors Company

Particulars (1)	Maruti Suzuki Motors (2)	Tata Motors (3)	Mahindra & Mahindra Motors (4)
Arithmetic Mean: for PAT ($\overline{Y}$)	Rs.36.55 billion	Rs.9.098 billion	Rs.3.0102 billion
for CSI ($\overline{X}$)	8.66 ('00 points)	8.25 ('00 points)	8.15 ('00 points)
Standard Deviation: for PAT (σ_Y)	22.07	5.079	0.93
for CSI (σ_x)	0.33	0.47	0.44
Correlation between PAT & CSI ($r_{.yx}$)	- 0.0067	0.5484	0.6931
Degree of Correlation	Low	Moderate	Moderate
Nature of Correlation	Negative	Positive	Positive
t-test: Calculated Value	(0.0190)	1.8549	2.7196
Table Value at 5% LOS with 9 DOF	2.306	2.306	2.306
State of Correlation	Insignificant	Insignificant	Significant
Testing of Hypothesis: H_0	Accepted	Accepted	Rejected
H_1	Rejected	Rejected	Accepted
Regression of Y on X: (projected future PAT for assumed future CSI)			
if X is recent year CSI	Rs.36.83 billion	Rs.12.022billion	Rs.3.74 billion
if X is Avg. CSI	Rs.36.55 billion	Rs.9.098 billion	Rs.3.01 billion
if X is recent year Industry Avg. CSI { i.e.,8.38 ('00 points)}	Rs.36.67 billion	Rs.9.878 billion	Rs.3.34 billion

Source: Authors contribution from original calculations using corresponding formulae

From Column 2 of Table 2, it can be seen that Maruti Suzuki Motors showed an average PAT of Rs.36.55 billion and a CSI of 866 points with a low variability of 22.07 and 0.33 respectively. This is reflected its inconsistency in PAT and consistency in CSI. The correlation between PAT and CSI is -0.0067, which reflects a very low degree negative relationship between them. That means the PAT value is increasing, while the CSI value is decreasing. The t–test revealed that the correlation between PAT and CSI is insignificant, since the calculated value -0.0190 is less than table value 2.306 (-0.0190 < 2.306). Hence, the null hypothesis (H0) is accepted and the alternative hypothesis (H1) is rejected. The regression analysis showed that the projected future PAT are Rs.36.83 billion, Rs.36.55 billion, and Rs.36.67 billion for assumed future CSI points of 804, 866, and 838 respectively, which shows that the projected future PAT are expected to be above the average PAT.

From Column 3 of Table 2, it can be seen that Tata Motors showed an average PAT of Rs.9.098 billion and a CSI of 825 points with a variability of 5.079 and 0.47, respectively. This shows its inconsistency in PAT and consistency in CSI. The correlation between PAT and CSI is 0.55. This shows a moderate degree positive relationship between them. That means both PAT and CSI are increasing. The t–test revealed that the correlation between PAT and CSI is insignificant, since the calculated value 1.8549 is less than table value 2.306 (1.8549 < 2.306). Hence, the null hypothesis (H0) is accepted and the alternative hypothesis (H1) is rejected. The regression analysis showed that the projected future PAT are Rs.12.022billion, Rs.9.098 billion, and Rs.9.878 billion for assumed future CSI points of 874, 825, and 838, respectively, which shows that the projected future PAT are expected to be above the average PAT.

From Column 4 of Table 2, it can be observed that Mahindra & Mahindra Motors showed an average PAT of Rs.3.01 billion and a CSI of 815 points with a very low variability of 0.93 and 0.44, respectively. This shows the most consistency in PAT and consistency in CSI. The correlation between PAT and CSI is 0.69, which reflects a moderate degree positive relationship between them. That means, both PAT and CSI are increasing. The t–test revealed that the correlation between PAT and CSI is significant, since the calculated value 2.7196 is greater than table value 2.306 (2.7196 > 2.306). Hence, the null hypothesis (H0) is rejected and the alternative hypothesis (H1) is accepted. The regression analysis showed that the projected future PAT are Rs.3.74 billion, Rs.3.01 billion, and Rs.3.34 billion for assumed future CSI points of 865, 815, and 838, respectively, which shows that the projected future PAT are expected to be above the average PAT.

Finally, from the summary of results, it can be understood that Tata Motors and Mahindra & Mahindra Motors, both, have a positive correlation between profits and customer satisfaction at a moderate degree 0.55 and 0.69, respectively. On the other hand, Maruti Suzuki Motors has a negative correlation at a very low degree i.e.,-0.02. The t-test further states that the correlation between the profits and customer satisfaction of Mahindra & Mahindra Motors is significant, while that of Maruti Suzuki Motors and Tata Motors is insignificant. The regression analysis further shows that the projected future profits for three assumed customer satisfaction levels of the three companies are expected to be above the average profits. Since the customer satisfaction affects the company profitability in the long-run, the recent past trends in customer satisfaction of the select companies will have an influence on the profits in the distant future, and likewise, the distant past trends in customer satisfaction will have an influence on the profits in the near future.

Among the three companies, Mahindra and Mahindra Motors is the most consistent in making profits with a Standard Deviation of 0.93, and in its customer satisfaction with a Standard Deviation of 0.44. Next to it is Tata Motors with a Standard Deviation of 5.079 in its profits and a Standard Deviation of 0.47 in customer satisfaction. Similarly, the profitability of Maruti Suzuki is somewhat volatile in its profits in terms of its Standard Deviation of 22.07, in spite of its consistent customer satisfaction with a Standard Deviation of 0.33. All the three companies are very consistent with their customer satisfaction.

5.1 Managerial Implications of the Study:

The results of this study will enable managers to measure the present customer satisfaction trends of the selected companies in the Indian automotive industry. It is also helpful to identify the service gaps, so that the managers may concentrate on improving and developing their service strategies more effectively. This study reveals the relationship between profits and customer satisfaction, the relative impact of the variables was explained with a regression equation. It also helps to assess the impact of customer satisfaction on profits. The study also helps to develop various means and ways to enhance customer satisfaction, especially in the Indian automotive industry.

6. CONCLUSION

From this study, it can be concluded that there are possibilities of having positive, negative, low degree, moderate degree, high degree, significant, and insignificant correlations between customer satisfaction and profitability of enterprises. But, in general, there are greater chances of having significant and moderate degrees of positive correlation between customer satisfaction and profitability of some enterprises, and the industry concerned, as has been observed in case of Mahindra & Mahindra Motors from the India automotive industry. Therefore, enterprises of any industry should be very cautious of the aspect of customer satisfaction. It is hereby advised that enterprises should have strategies for focussing on customer satisfaction, because a satisfied customer is LOC+, he brings not only a Line of Customers, but also a Lot of Cash, by way of enhancing goodwill and increasing sales.

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