

# Case Study to Improve the Growth of RIT Auto-Care

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**Abstract:** In a rural area, vehicle washing and servicing always been done in a traditional way, either the technologies required are not easily available nor are affordable. But as a profound institute, we saw a vision to give customers the service with high-end technologies and at a low cost. Then after we department of Automobile engineering at RIT started the vehicle washing and serving center back in 1983.

We kept customers always at the apex and strived to upgrade our servicing center. We refined the undergoing work and made standard operating procedures and started monitoring the activities weekly. Also, we started doing a market survey of what the customers really wanted from such a facility in order to enhance the overall performance of their vehicles at a low cost. We went nearby washing centers to look at what facilities are there?

We thought that if we able to provide our customers one-stop solution in vehicle servicing and validation of its performance then definitely the customers will attract and they will get what they want in single visit. As part of up-gradation we successfully commissioned and running an online PUC center and new washing accessories such as vacuum cleaner, established new river water connection and installed CCTV. These facilities add value in servicing and validation of performance of the vehicle in low cost also these facilities are the part of student's curriculum so our students are getting great experer to such advanced technologies and they will have hands-on as well. So with this up-gradation we do consultancy work of servicing and validation of the performance of the vehicle at a low cost along with the student's development.

**Keywords :** Consultancy, PUC, Student's development

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## 1. Introduction

We, Department of Automobile engineering, Rajarambapu Institute of Technology Rajaramanagar (Diploma) started looking after the RIT-Autocare since January 2020. As first step we checked the functionality and technologies available at RIT-Autocare. The overall functioning of it was acceptable but as far as the competitors and technologies are concerned we were lagging far behind in terms of profit and available technologies of vehicle servicing. We as department refined the undergoing work and started monitoring the activities weekly.

We realized that our Autocare has to be technologically upgraded in terms of vehicle washing and validation of its performance. So we started doing market survey of what the customers really wanted from this facility in order to enhance the overall performance of their vehicles. We went nearby washing centres to look what facilities are present over there. We thought that if we able to provide our customers one stop solution in vehicle servicing and validation of its performance then definitely the customers will attract and they will get what they want at single visit. As a part of creating one stop solution, we thought of establishing PUC centre around the same facility. Then we did market analysis and we found that the machine required is very small in size and can be operated by semi-skilled labour. So we successfully implemented such new facility in our Autocare centre. Along with this we worked on feedbacks and suggestions received and as part of improvement we implemented car interior vacuum cleaner, established new river water connection for vehicle washing to avoid white stains on vehicle body. Also we have fixed new CCTVs to monitor quality of ongoing works. In marketing we created awareness among our valued customers through live broadcast on radio, newspaper insertions, digital marketing, created jingles about the facilities that we have and to collect feedback from them. With such technological upgradation in facilities, we achieved quite good improvements in customer satisfaction and the turnover in last quarter FY 2019-2020.

**2. Selection of practice**

2.1 Problem identifications

We as department identified the mentioned problems and we started thinking on various problems simultaneously.

**Table I**  
**Problems Identified For Best Practice Activity**

Sr. No.	Problems Identified
1.	Poor Discipline
2.	Developing engineering ethics
3.	To improve employee motivation
4.	Improve growth rate of RIT AUTOCARE
5.	Inability to develop motor skills in students
6.	Lack of Sincerity
7.	Improve Student’s Performance through participation in co-curriculum and extracurricular activities.
8.	Quality of report writing
9.	Students lack in Presentation skills
10.	Poor Self-study of students
11.	Communication gap between students and teacher

	through participation in co-curriculum and extracurricular activities.						
8.	Quality of report writing	03	03	04	03	04	17
9.	Students lack in Presentation skills	04	03	03	03	04	14
10	Poor Self-study of students	03	02	03	03	03	14
11	Communication gap between students and teacher	03	03	04	03	04	17

2.2 Rating methods used for selection of problem

Once we were armed with a probable list of problems we used the rating method tool to select the most challenging and unseen problem. These all 11 identified problems rated on a scale of 5 per group member, after this the points were cumulated and the highest rated problem was finalized.

**TABLE II**  
**Details of rating methods used for problem selection**

Sr. No	Problems Identified	P. A. Desai	M. J. Thorat	N. A. Mulani	R. Y. Chavan	R. S. Sargar	TOTAL
1.	Poor Discipline	04	04	04	04	04	20
2.	Developing engineering ethics	04	03	04	04	03	18
3.	To improve employee motivation	04	05	04	03	05	21
4.	Lack of Sincerity	03	03	04	03	04	17
5.	Inability to develop motor skills in students	05	05	04	03	04	21
6.	Improve growth rate of RIT AUTOCARE	05	05	05	04	05	24
7.	Improve Student’s Performance	04	04	04	04	04	20

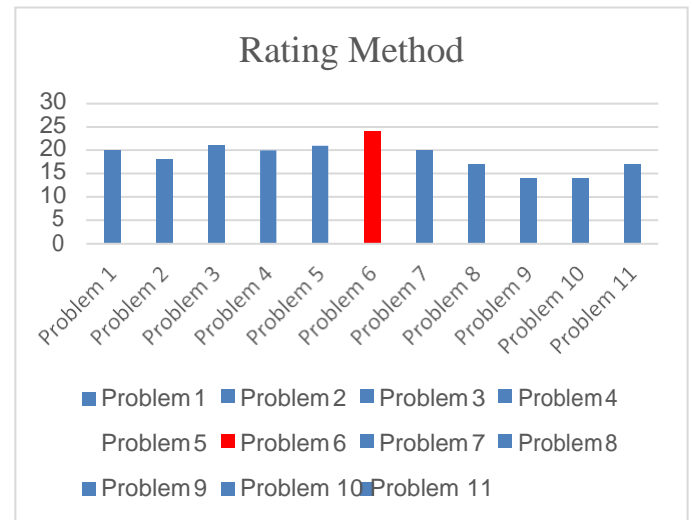


Fig.1. Graphical Presentation of Rating Method

2.3 Problem statement:

Improve the growth rate of RIT Auto care

**3. Objectives of the Practice**

1. To add new technologies such as PUC and Vacuum cleaner etc.
2. To respond and take correctives actions on the customer feedback collected
3. To give reminder for next servicing through proper channel.
4. To create one stop solution for vehicle servicing.

**4. The Context**

We, Department of Automobile engineering, Rajarambapu Institute of Technology Rajaramanagar (Diploma) started looking after the RIT-Autocare since January 2020. As first step we checked the functionality and technologies available at RIT-Autocare. The overall functioning of it was acceptable but as far as the competitors and technologies are concerned we were

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We thought that if we able to provide our customers one stop solution in vehicle servicing and validation of its performance then definitely the customers will attract and they will get what they want at single visit. As a part of creating one stop solution, we thought of establishing PUC center around the same facility. Then we did market analysis and we found that the machine required is very small in size and can be operated by semi-skilled labour.

### 5. The Practice

#### 5.1. Analysis of The Problem:

The purpose of selection of this problem is if this business has to survive in market then we as RIT auto-care needs to be technologically upgraded. Also it was seen that in previous financial years the less profit margin was also the concern. At last everything comes to satisfaction of customers through quality work and high end technology. This are the reasons which motivated us to take up this challenge and then we started working on it.

#### 5.2. Reasons for Selection:

1. As RIT Auto-care surrounded with highly populated city
2. Also surrounded with industrial area.
3. RIT Autocare technologically lagging behind and needs to be upgraded to attract more customers.
4. It has a huge scope in vehicle servicing and validating its performance.

#### 5.3. Identification of The Causes behind the poor performance of RIT Auto-care:

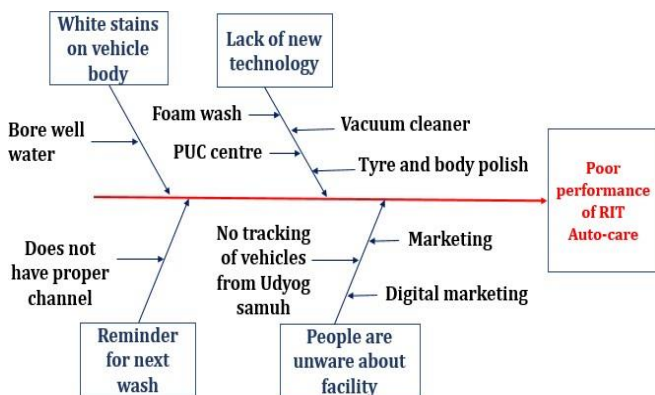


Fig.2. Cause & Effect diagram

### Regional Analysis:

We did market analysis for Udyog samuh for now and had a brief discussion on the market shares and strategies of key players.

The report has been compiled through extensive primary research through. The report also features a complete quantitative assessment by analyzing data gathered from Udyog samuh.

Following tables gives information about number of vehicles are being used by an individual and by an organization in Udyog samuh.

**TABLE III**  
**Market survey**

RIT Campus	
College Bus	10
RIT Administrative Vehicles	02
Four Wheelers (Faculty)	45
Two Wheelers	117
Total	174
Rajarambapu Patil Dudh Sangh	
Milk Van	60
Trucks	15
Refrigerated Milk Van	10
Four Wheelers	6
Two Wheelers	250
Total	341
Rajaram Solvex	
Trucks	1
Four Wheelers	3
Two Wheelers	150
Total	154
Rajarambapu Patil Sugar Factory	
Trucks	30
Two Wheelers	450
Total	480
Vidyaniketan School	
School Buses	5
Two Wheelers	15
Total	20

### 6. Evidence of Success

#### 6.1. Created awareness among RIT staff:

We went on giving presentation to every department in RIT campus first the presentation includes the facilities we have, coupon system, free pickup and drop facility for their vehicle and so on. in order to create awareness among RIT staff and encouraged them for getting enrolled for vehicle servicing. Also we collected basic information of staff, how many vehicles they own and their previous experiences with RIT auto-care.



Fig. 2.



Fig. 3.

Fig. 2. & 3. Creating awareness about facilities

During the presentation the staff co-operated well and gave us the valuable feedback. The feedback we got made us to think on it seriously about quality of service and facility upgradation.

6.2. Collected feedback from RIT Teaching and Non-Teaching staff:

1. Concern about not getting reminder for next washing.
2. Must wash vehicles with river water to avoid white stains on vehicle body.
3. Need vacuum cleaner for 4 wheelers interior cleaning.

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Name of Department: Exam Center Date: 14/03/2020

Sr. No.	RFID No.	Name of Faculty	Contact No.	Do you have Membership (Y/N)	Vehicle Details		Sign
					2W	4W	
01	E00026	M.V. Kavale	997070723	N	01	01	[Signature]
02	E00089	A.S. Desai	959505005	N	02	-	[Signature]
03	E00093	S.M. Patil	775700733	N	01	01	[Signature]
04	E00098	M.M. Dige	7731992002	N	01	-	[Signature]
05	E00016	A.D. Patil	7769967901	N	01	01	[Signature]
06	E00017	Maheg R. Sambhare	820000456	N	01	-	[Signature]

Fig. 4.

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					2W	4W	
1	E00802	Mr. K.P. Mali	7028284243	N	02	01	[Signature]
2	E00087	Mr. M.S. Yadav	9699659003	N	01	-	[Signature]
3	E01014	Mr. V.T. Babar	990522719	N	01	01	[Signature]
4	E00927	Mr. V.T. Mulwane	9552512688	N	01	-	[Signature]
5	E00900	Mr. A.B. Hangamole	9405577054	N	01	-	[Signature]
6	E00084	Mr. S.S. Ingole	827580272	N	02	01	[Signature]
7	E01055	Mr. A.M. Kadam	7972684708	N	02	-	[Signature]
8	E01073	Mr. R.R. Tale	7350029000	N	02	-	[Signature]

Fig. 5.

Fig. 4. & Fig. 5. Feedback from customers

Also as part of marketing to attract more customers fixed Flex just outside of Auto-care. Then we circulated leaflet on social media such Facebook, Whatsapp. wherein the market reach is unlimited and covers every part of our locality.

6.3. Taken appropriate actions on feedback collected:

1. Must wash vehicles with river water to avoid white stains on vehicle body.  
 Actions Taken-River water connection established.
2. Concern about not getting reminder for next washing.  
 Actions Taken-Started to give a call for next washing.
3. Need vacuum cleaner for 4 wheelers interior cleaning  
 Actions Taken- New vacuum cleaner machine is purchased
4. Method to Ensure quality of work.  
 Action Taken – Installed CCTV (2Nos.) to ensure quality and monitoring of ongoing work.
5. Have PUC certification center  
 Action Taken – Successfully implemented an on,ine PUC Center in Autocare campus



Fig. 6. Issuing PUC Certificate to customer

In marketing we created awareness among our valued customers through live broadcast on radio, newspaper insertions, digital marketing, created jingles about the facilities that we have and to collect feedback from them. With such technological upgradation in facilities, we achieved quite good improvements in customer satisfaction and the turnover in last

6.4. Up-gradation of technology along with student's development:

As a part of Automobile Engineering curriculum, this technology helps to perform an experiment for the overall improvement in student's knowledge and skills. Also they are getting great exposure to such advanced technology and they can have hands-on as well.



Fig. 7.



Fig. 8.

Fig. 7. & Fig. 8. Students performance on PUC unit

6.5. Other technological upgradations

1. Vacuum Cleaner:

In RIT autocare vehicle interior dust were used to clean with the help of high pressure air. While cleaning the inside dust got spread in all interior parts of vehicle. So the customers were unsatisfied with such process of cleaning.

So we suggested to clean with vacuum cleaner, which sucks all dust from inside of vehicle interior without spreading. So we bought new vacuum cleaner and started to clean vehicle interior without any extra pay. Now the customers are satisfied with such upgradation.

2. CCTV:

CCTV Surveillance is a great solution to keep an eye on property and will track down each vehicle coming for servicing. In addition to keeping an eye out for vandals, we can also monitor employees to prevent unwanted employee behavior and increase their efficiency and productivity.

So we brought and installed CCTV which cover every corner of RIT autocare indeed which helps us to monitor the

quality of wash and service in order to satisfy the customers

7. Quarterly results of Consultancy work

Following tables represents the quarterly earnings and net profit details for last financial year of consultancy work.

TABLE IV  
 Quarterly results of Consultancy work

Quarter	Earning (in Rs.)	Net Profit (In Rs.)
Q4- 2019 (January 20 to March 2020)	32480	8480
Q1-2020 (April 20 to June 2020)	14110	-
Q2-2020 (July 20 to September 2020)	29830	-
Q3-2020 (October 20 to December 2020)	38400	14400
Q4- 2020 (January 21 to March 2020)	39500	15500

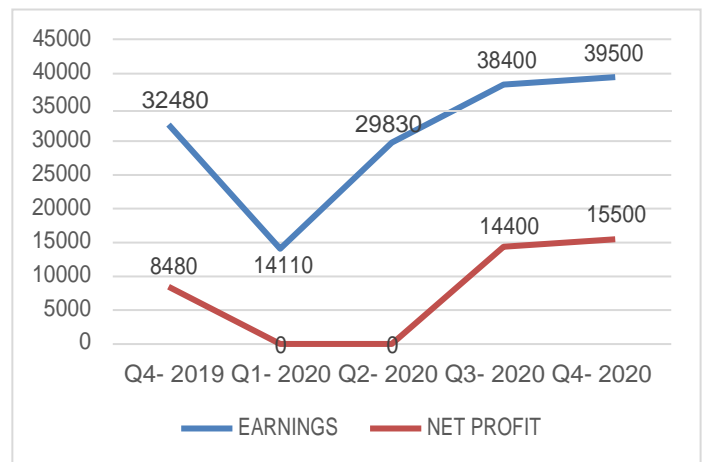


Fig. 9. Quarterly results of Consultancy work

It is observed from above graph, in last row quarters (Q3 & Q4 of 2020), seen the introduction of PUC unit the earning and net profit has been increased which indicates the strong base of customers has setup

For the Q1 & Q2 of FY 2020-21 profit is not achieved due to unprecedented COVID 19 situation.

8. Problems Encountered and Resources Required

To maintain and improve the quality of work in order to satisfy the customers we believe that the work should be done by skilled manpower.

At this point customers aren't getting full vehicle servicing washing at single place.

Resource required: Full servicing station of vehicle including engine and various body work

9. Conclusion

This facility really helped out the customers to have benefit of such advanced facility at very low cost compared with all competitors. The students have benefitted through this facility and met curriculum requirements also, helped to enhance their

skills and knowledge. After market analysis we identified potential and target customers for this business. Since we took over the auto-care we introduced new technologies such as PUC center, Vacuum cleaner and CCTV. We have Maintained data for expenses and earnings which helps us to keep record in proper way. Since we introduced new facilities, it was seen that the customer satisfaction and net profit margin have been increased.

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