TIME CONSUMPTION ANALYSIS

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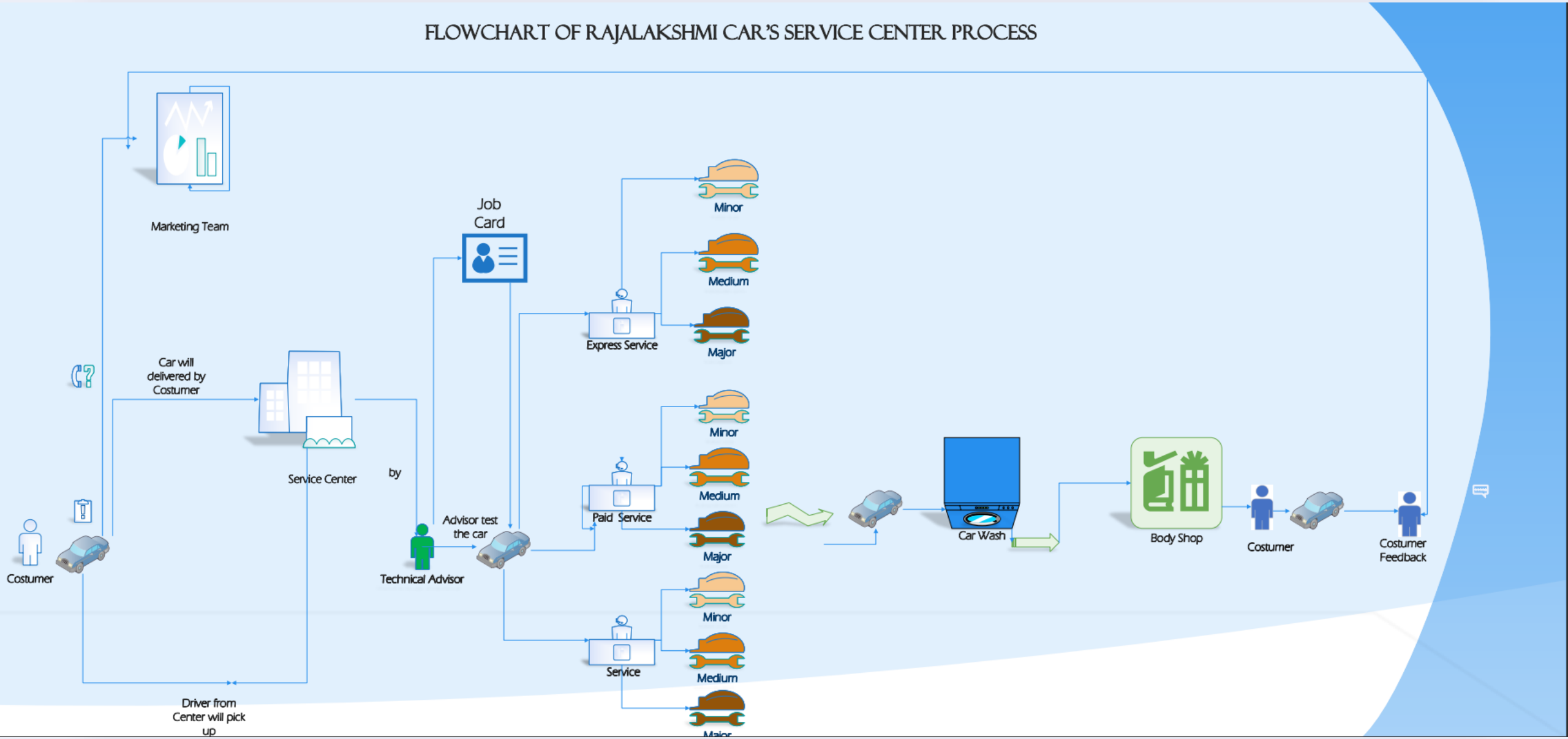
Problem Statement

1. The Goal is to identify where the Time wastage happening in the service and using best possible way to stop the Consumption and optimize the time .
2. With the Data from the center and with the help of the Data Analysis to identify the time Consumption in the car service

Flowchart


FLOWCHART OF RAJALAKSHMI CAR'S SERVICE CENTER PROCESS
Marketing Team
Job Card
Minor
Medium
Major
Express Service
Car will delivered by Costumer
Service Center
by
Minor
Medium
Major
Paid Service
Advisor test the car
Technical Advisor
Costumer
Minor
Medium
Major
Service
Car Wash
Body Shop
Costumer
Costumer Feedback
Driver from Center will pick up

Findings

1. According to our analysis on the data where 34% of time consumed by 77 Car of five types Car Model and remaining time 66% was utilized by 575 car of remaining 29 car model types .
2. In that 34 % of car where almost 72% of cars under the PMS(Period maintenance Service) which are 59 cars and remaining 28% of cars under the RR (Running Fault).
3. 75% of cars which comes for almost serviced and processed within a day or below. Around 53 % Service are Periodic Maintenance service indicates better service in the Center.
4. There are certain model in the service which are BALENO , CELERIO , NEW ERTIGA , NEW SWIFT ,SWIFT , SCROSS , WAGON R , SWIFT DZIRE consumes 34% of the Total Service time.
5. According to dataset where Periodic Maintenance Service around 53% , Running Fault around 19% , Free Service FR1 around 9% and FR2 around 10% and FR3 around 6%.

Recommendation

With the help of the Findings from the analysis , we found that only Certain model type car cause the Time Delay and Time Consumption in the Service processing.

1.One of our best choice of solution is to provide the Special training and Educating the employee in those Certain model types which mentioned before to optimize the solution .

2.By increasing the manpower in the Periodic Maintenance Service might reduce the time because the PMS is the most using Service and potential one of the service which consumes more time too.

3. Using the Warehouse Management Software(WMS) to help in the Organize and administrator the part in the warehouse .

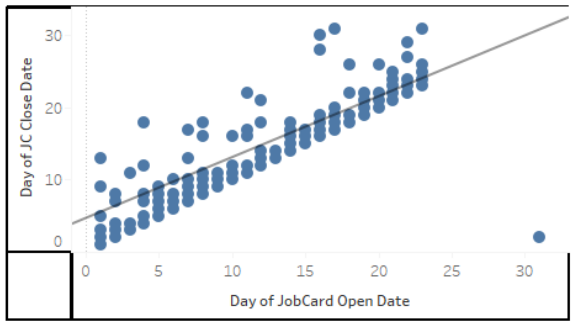
Time Consumption Analysis

Summary

link Service Type

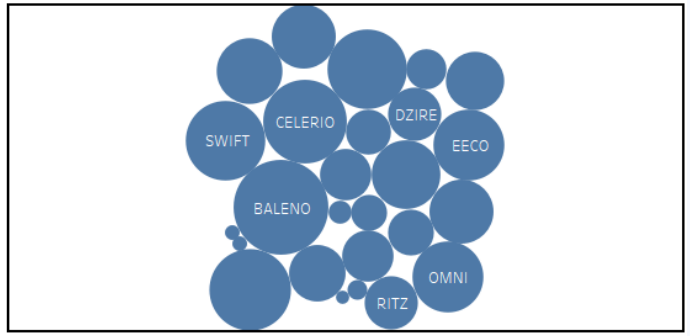
FR1	FR2	FR3	FR4	PMS	RR
62	68	40	1	351	129

Trend Analysis



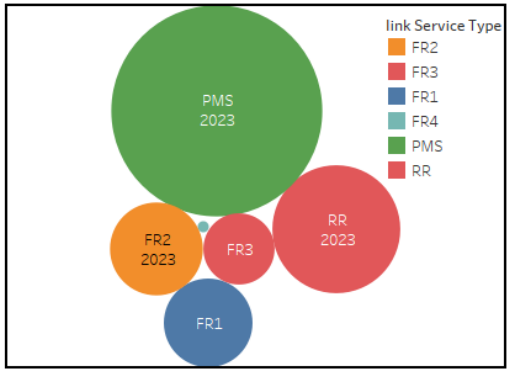
The Above scatter plot tells us what is the trend and plot is moderately Normal with R Square value of 0.6338 and P- Value < 0.00001

Bubble Chart describes Model types and its count



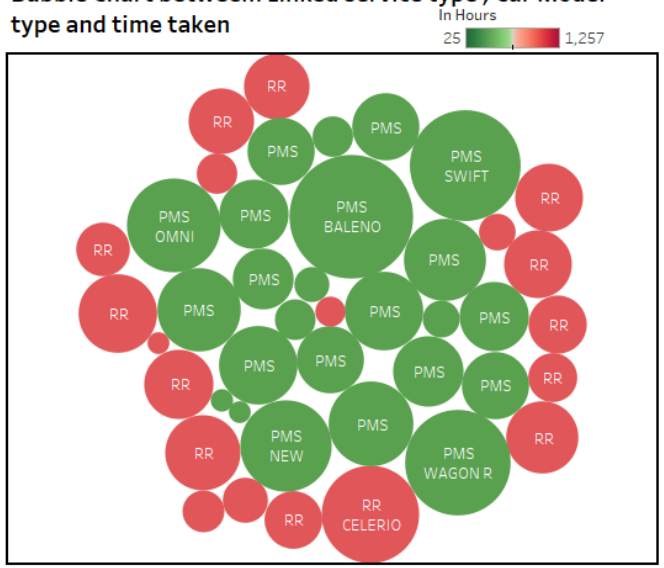
This Bubble chart helps to understand what model types consumes how amount of time (Unit in Hours for time)

Bubble plot



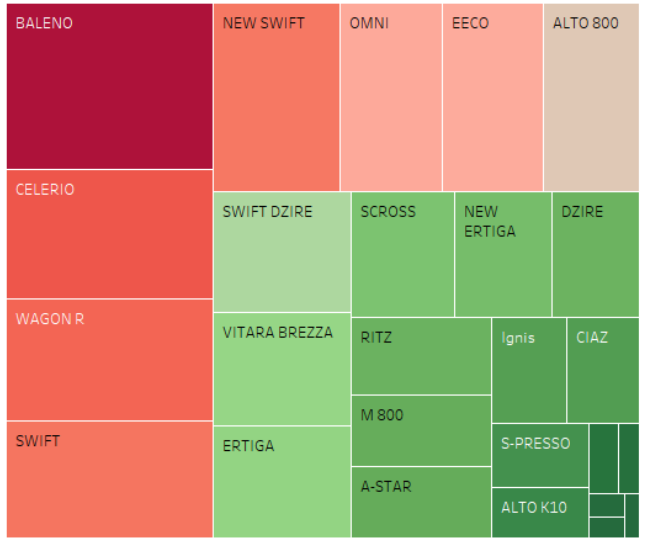
This Bubble chart help us to understand what service was mostly used and tells us PMS are the most

Bubble Chart betweem Linked service type , Car Model type and time taken



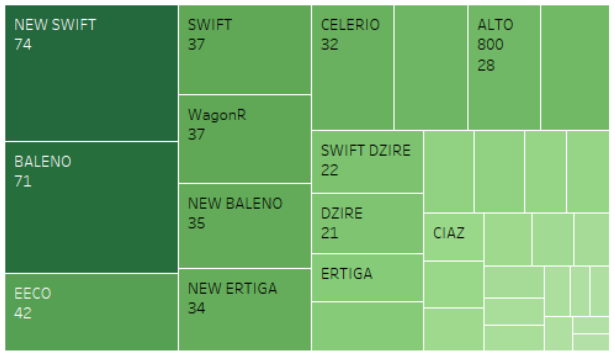
This Bubble chart describes what are the Service contain which model and time taken for it to servces . Fromt this chart , we can able to understand that PMS holds most of the service with 53% and to the second most RR service hold next most service

Heatmap for Model vs Time Taken(in hours)



Above heatmap help us to understand what car madel take how much amount of time to get processed and service and what we learn is that BALENO , NEW SWIFT , CELERIO , WAGON R AND SWIFT , ALTO 800, EECO are anomaly consumes severe amount of time in the process

Heatmap for most Incoming cars



Conclusion

1. With the help Data Analysis and Data Visualization using Tableau to find the Time Consumption in the Service Process where identified and which helps to optimize the time of the Car service .
2. Educating and Training the Employee in the area where the Time Consumption might be the best method to optimize the Service Time
3. In Future, Using the Machine learning model to predicate and forecast where problem in the Service Management by feeding the data will simplify everything .