



A STUDY ON CUSTOMER PREFERENCE ON FUEL FLEX ENGINES AMONG FACULTY OF CMRIT

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Abstract: The project is study and analyze about the Fuel flex engines are designed to be compatible with fuels like ethanol, methanol, and gasoline. These engines are becoming popular, which reduce emissions and provide a more sustainable fuel source. They work by adjusting the fuel injection and ignition timing to optimize performance, regardless of the type of fuel being used. By using renewable fuels, fuel flex engines can reduce greenhouse gas emissions and minimize our dependence on fossil fuels. This will change the transportation industry and lead to more sustainable future, because India is agriculture base country and ethanol can be manufactured from the extraction of sugarcane. So this would make India as a superpower Nation by equal development of both Technology and Agriculture sectors.

INTRODUCTION

As per the call of Sri. NITHIN GADKARI (Road and Transport Minister of India), the automobile industries like LMV(Light Motor Vehicle) and HMV(Heavy Motor Vehicle) manufacturers started to invent the fuel flex engines, which will meet the standard norms prescribed for the latest version of Bharat Stage-6.

Due to high rise in price of crude oil, which has impacted and burden on customers of different fuel version engines and on the other hand State Governments and Union Territories of India has levied high tax prices on Petrol and Diesel according to their State demographic factors like fuel consumption in Petrol and Diesel, Population in Urban and Rural, different automobile users (Two Wheeler, Cars, Buses, Trucks). Majority of State Governments will get lot of profits in form of taxes from Petroleum and Petrochemical corporation sector.

Srimati. NIRMALA SEETHA RAMAN (Finance Minister of India) has declared in year 2022 Finance bill that fuel prices will not be considered under GST slab rates till the year of 2030. But recently in 2023 Finance bill, Minister has said Union Government is ready to bring Petroleum products under GST. But until and unless all the State Governments of India are willing to support and accept a determined price on fuel across the entire Nation. Then the decision will be taken by the GST council for upcoming future. The government of India has started production of flex fuel in India. These are classified as E95, E90 and E85 depending on the petrol-ethanol ratio. Toyota Corolla Altis Hybrid is a first-of-its-kind pilot project vehicle that is based on Flexi-Fuel Strong Hybrid Electric Vehicles (FFV-SHEV) technology. It is powered by a 1.8-litre ethanol ready petrol-hybrid engine. Mahindra and Mahindra is second the company in India, which invented Fuel Flux Engine in Scorpio s11 classic. This engine has two separate fuel tanks, which run on petrol and diesel as well.

Key words : LMV, HMV, FuelFlex engines, GST etc.

REVIEW OF LITERATURE:**S.T. Coelho, José Goldemberg, 2004.**

Flex-fuel vehicles that can operate with multiple fuels. Such technology was created in 1980 and there are around 2 million flex-fuel vehicles in the United States today. The main fuels used include gasoline and ethanol. Already in use in Brazil is an ethanol–gasoline; blend at a percentage of 20–26% ethanol. Another blend of ethanol–gasoline (E85), with 85% ethanol, is used in the United States; a blend of methanol–gasoline also used in the United States has 85% methanol. The methanol–gasoline blend has a limited potential for widespread use, because most automobile manufacturers do not build fuel systems compatible with methanol blends. Flex-fuel vehicles have a small processor placed inside the fuel system; the processor detects the fuel blend being used and automatically adjusts the ignition time and the mixture of air and fuel. The greatest advantage of the flex-fuel vehicles is that they can operate with regular gasoline when alternative fuels are not available or are not economically competitive.

R.J. Pearson, J.W.G. Turner, 2012.

The concept of introducing a tri-FFV. Operating vehicles on combination of two alcohols and gasoline, it may be possible to introduce methanol in a far more pragmatic manner more quickly and thus accelerate the displacement of fossil energy. The aim of the concept outlined below is to exploit the physicochemical similarities of ethanol and methanol to produce ternary mixtures of the two alcohols with gasoline in a blended form that can be used seamlessly by any existing E85/gasoline FFV. 11-October-2022.

Union Minister Nitin Gadkari introduced India's first car with a flex-fuel engine. Toyota Motor has been driven in the Corolla Altis on an experimental basis as part of a pilot project on Flexi-Fuel Strong Hybrid Electric Vehicles (FFV-SHEV). It is the first on Indian roads to run on ethanol-mixed petrol after the Centre approved mixing of the sugarcane-sourced fuel. It is expected to be a more affordable option as cost is less than the petrol or diesel cars.

Flex-fuel engines are already popular in countries like the United States, Brazil, EU and China among others. Gadkari had earlier said that the plan is in line with the Centre's Aatmanirbhar Bharat policy to promote ethanol as a transport fuel. In December last year, Gadkari had issued an advisory to carmakers to introduce flex-fuel engines in vehicles within six months.

India is the fifth largest manufacturer of ethanol following the US, Brazil, EU and China. To make it more effective in India context, the Centre decided to introduce it as transport fuel to reduce costly imported oil. The Centre aims to offer petrol mixed with 20 per cent ethanol by 2025. In June 2022, India achieved target of mixing 10 per cent ethanol with petrol.

RESEARCH METHODOLOGY:-**PROBLEM STATEMENT:**

The main purpose of the study is to know the customer preference of fuel flex engines and identify the factors which influence customers to take up this fuel flex engines.

1. Dependent variable:- CUSTOMER PREFERENCE
2. Independent variable:- FUEL FLEX ENGINES

OBJECTIVE OF THE STUDY

- To know about the faculty's preference to buy FFV's.
- To identify the faculty preferences like petrol, diesel & electricity balanced to meet the transportation needs

SCOPE OF THE STUDY:

The study is purely based of fuel flex engines and their preferences among faculty on CMRIT only.

PERIOD OF THE STUDY

The study took around 45 days to complete the project.

LIMITATIONS OF THE STUDY

1. The study is on fuel flex engine vehicles only
2. For the purpose of study opinions of faculty only were considered
3. The answers may contain bias
4. The opinions are based purely on respondents interest only.

POPULATION : 200

SAMPLE : 124.

Data collection : the data has been collected through primary data and secondary data.

Primary data through questionnaire and secondary data through articles and journals.

Data collection tool: questionnaire with liker ts scale

Statistical tool : chi-square tool .

OVER VIEW OF TOPIC

Over view of project on fuel flex engines is the upcoming trend in automobile sector which is implemented as the pilot project in India to meet the transportation easy to reduce the expenditure on fuel prices and to know about that how efficient are the fuel flex engines when compared to present engines which run on the fuels like petrol and diesel.

The fuel flex engines will work on the combination of ethanol, methanol and gasoline. By using these combination fuels will help to fight against environmental issues like decrease in Pollution like carbon monoxide, hydrocarbons, nitrogen oxides, particles, volatile organic compounds and sulphur dioxide. Hydrocarbons and nitrogen oxides react with sunlight and warm temperatures to form ground-level ozone.

Moreover, customer perception about the fuel flex engines is the main plan to study because whatever the latest technology is invented and implemented in manufacturing by the giant automobile companies, ultimately the customers are the end users of the fuel flex engines in the market. On the other hand, government decision will effect and impact a lot because the guidelines, rules, regulations, policy schemes are the main area to attract the customers because fuel flex engines are the latest technology, so government has to give assurance to the customers and guarantee that there will be no chance in rise of problems once the purchase is done by the customer.

OVER VIEW OF THE COMPANY

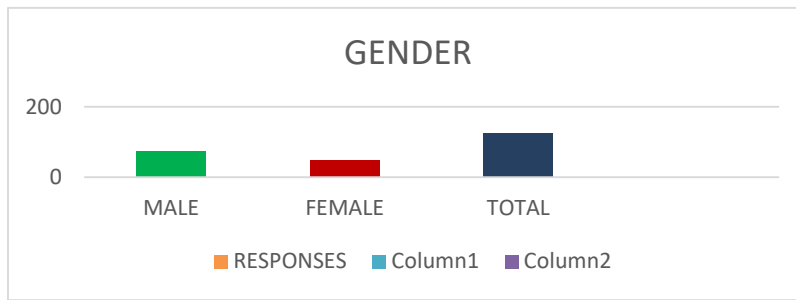
Toyota Company is an origin of Japanese multinational automotive founded by Kiichiro Toyoda in 1937. The company was a division of Toyoda Automatic Loom Works, a company that was founded by Kiichiro's father, Sakichi Toyoda.

For the first time in India Toyota started production of E95, E90, E85 in India. Before this Toyota used to manufacture various cars like Innova, Innova crysta, Fortuner, Etios, Etios liva, Yaris, in two fuel variants like petrol and diesel.

DATA ANALYSIS

1. What is your Gender?
 - A) Male
 - B) Female

GENDER	NO OF RESPONDENTS
MALE	75
FEMALE	49
TOTAL	124

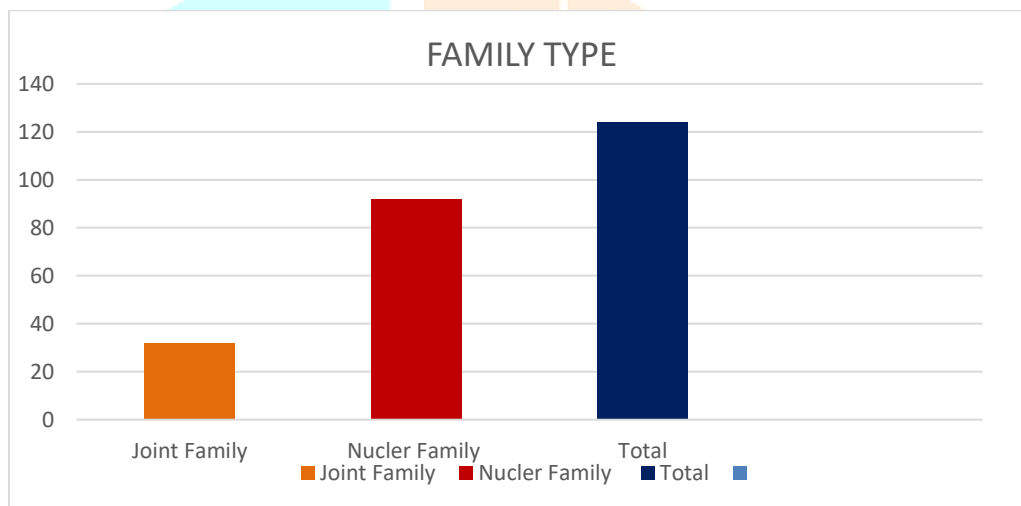
**INTERPRETATION:-**

From the above table, Total no of Respondents are 124. From the table it is clear that Male respondents are 75 and Female respondents are 49. So, Male respondents are more than Female respondents.

2. What is your Family type?

- A) Joint Family
- B) Nuclear Family

FAMILY TYPE	NO OF RESPONDENTS
JOINT FAMILY	32
NUCLEAR FAMILY	92
TOTAL	124

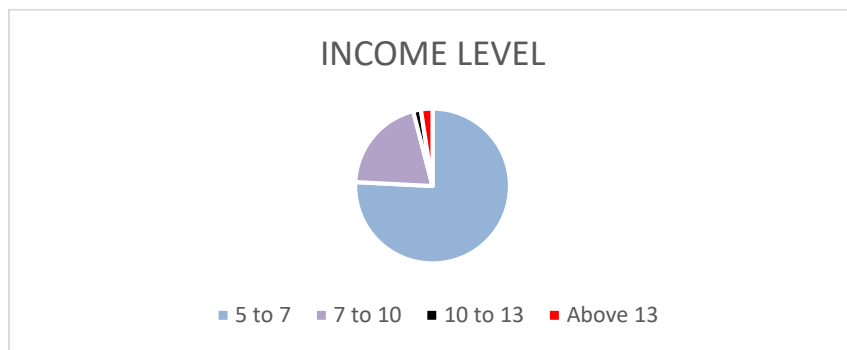
**INTERPRETATION:-**

From the above table total no of respondents are 124. From the table it is clear that joint family respondents are 32 and nuclear family respondents are 92. So, Nuclear family respondents are more than joint family.

3. What is your Income level?

- A) 5-7 LPA
- B) 7-10 LPA
- C) 10-13 LPA
- D) Above 13 LPA

INCOME LEVEL	NO OF RESPONDENTS
5-7 LAKHS	94
7-10 LAKHS	25
10-13 LAKHS	2
ABOVE 13 LAKHS	3
TOTAL	124



INTERPRETATION:-

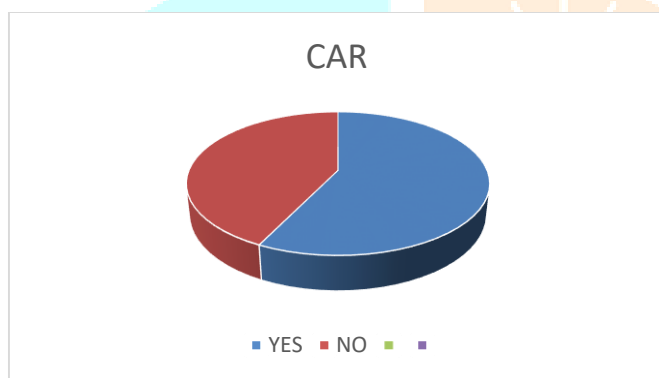
From the above table total no of respondents are 124. From this table it is clear that 5-7 lakh respondents are 94, 7-10 lakh respondents are 25, 10-13 lakh respondents are 2 and above 13 lakh respondents are 3. So, 5-7 lakh respondents are more when compared to others.

4. Do you own a car?

A) Yes

B) No

CAR	NO OF RESPONDENTS
YES	71
NO	53
TOTAL	124



INTERPRETATION:-

From the above table total no of respondents are 124. From table it is clear that Yes respondents is 71 and No respondents is 53. So, Yes 71 respondents is more than no 53 respondents.

5. Are you satisfied with your present car?

A) Highly satisfied

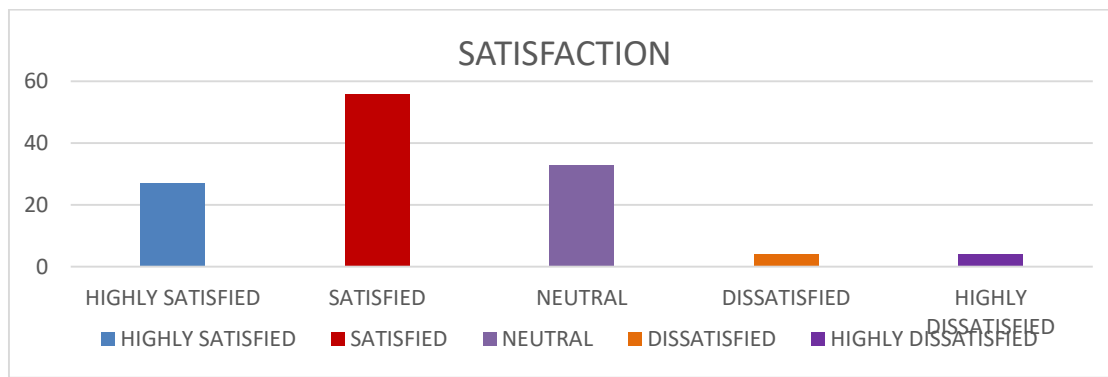
B) Satisfied

C) Neutral

D) Dissatisfied

E) Highly Dissatisfied

SATISFACTION	NO OF RESPONDENTS
HIGHLY SATISFIED	27
SATISFIED	56
NEUTRAL	33
DISSATISFIED	4
HIGHLY DISSATISFIED	4
TOTAL	124



INTERPRETATION:-

From the above table total no of respondents are 124. From table it is clear that highly satisfied respondents are 27, satisfied respondents are 56, neutral respondents are 33, dissatisfied respondents are 4 and highly dissatisfied respondents are 4. So, satisfied respondents are more when compared to remaining respondents.

6. Are you willing to buy new car?
 A) Yes
 B) No

BUY	NO OF RESPONDENTS
YES	91
NO	33
TOTAL	124

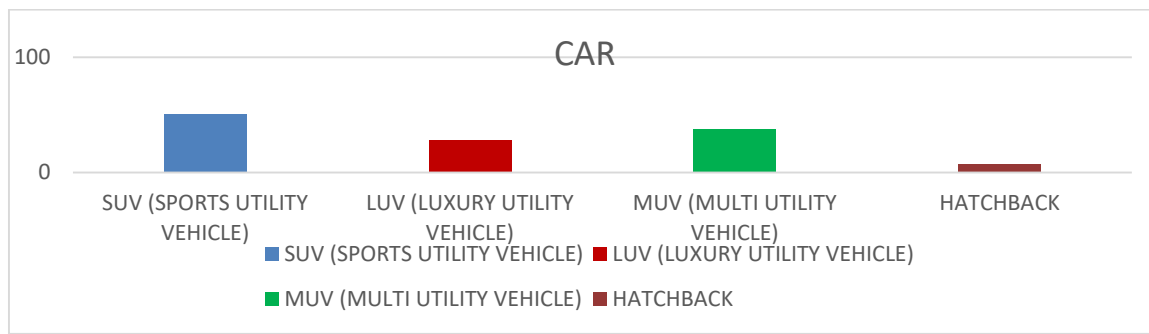


INTERPRETATION:-

From the above table No of respondents are 124. From the table it is clear that YES is 91 respondents and NO is 33 respondents. So, Yes 91 is the maximum respondents than No 33.

7. Which type of car do you prefer to buy?
 A) SUV (SPORTS UTILITY VEHICLE)
 B) LUV (LUXURY UTILITY VEHICLE)
 C) MUV (MULTI UTILITY VEHICLE)
 D) HATCHBACK

CAR	NO OF RESPONDNETS
SUV (SPORTS UTILITY VEHICLE)	51
LUV (LUXURY UTILITY VEHICLE)	28
MUV (MULTI UTILITY VEHICLE)	38
HATCHBACK	7
TOTAL	124



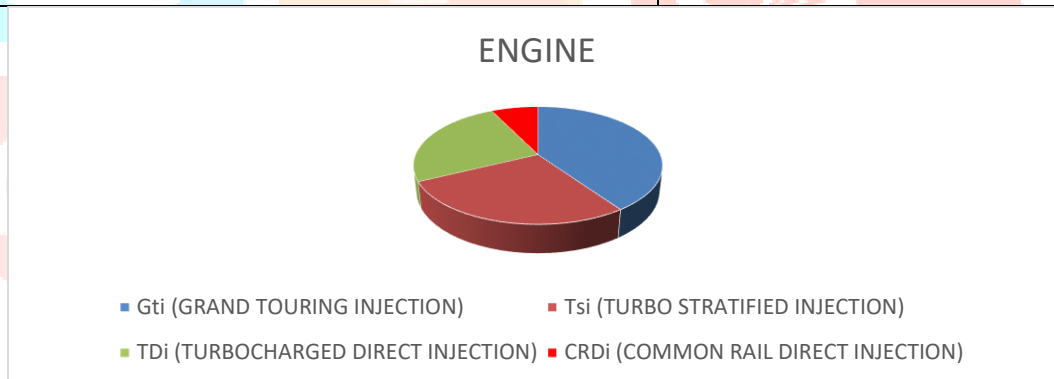
INTERPRETATION:-

From the above table, total no of respondents is 124. From table it is clear that, SUV (SPORTS UTILITY VEHICLE) respondents is 51, LUV (LUXURY UTILITY VEHICLE) respondents is 28, MUV (MULTI UTILITY VEHICLE) respondents is 38, HATCHBACK respondents is 7. So, SUV (SPORTS UTILITY VEHICLE) respondents 51 is the maximum, when compared to remaining respondents.

8. Which type of engine car do you prefer to buy?

- A) GTi (Grand Touring Injection)
- B) TSi (Turbo Stratified Injection)
- C) TDi (Turbocharged Direct Injection)
- D) CRDi (Common Rail Direct Injection)

ENGINE	NO OF RESPONDNETS
GTi (GRAND TOURING INJECTION)	50
TSi (TURBO STRATIFIED INJECTION)	34
TDi (TURBOCHARGED DIRECT INJECTION)	31
CRDi (COMMON RAIL DIRECT INJECTION)	9
TOTAL	124



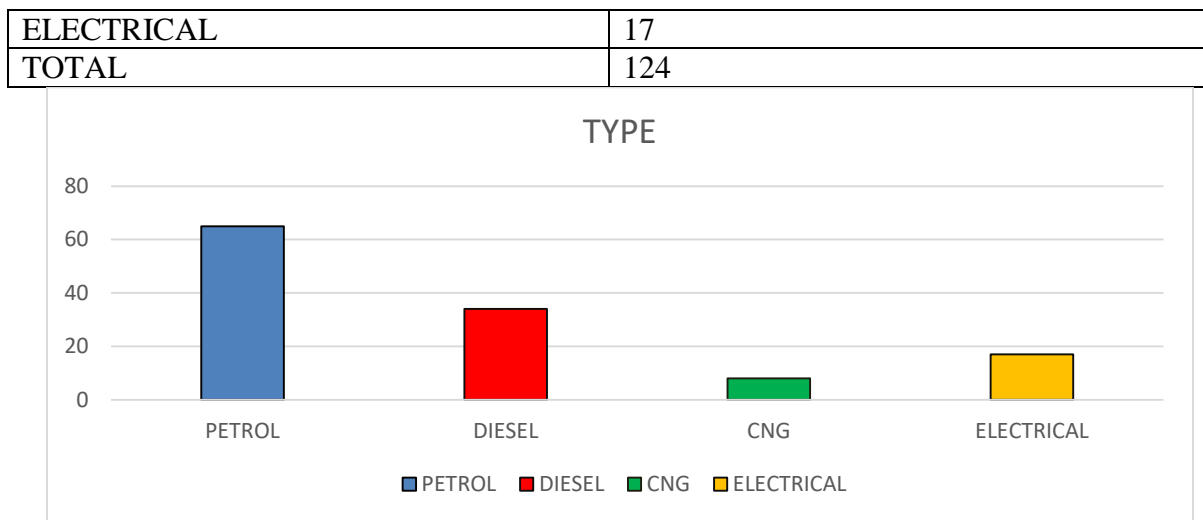
INTERPRETATION:-

From the above table, total no of respondents is 124. From table it is clear that GTi (GRAND TOURING INJECTION) respondents is 50, TSi (TURBO STRATIFIED INJECTION) respondents is 34, TDi (TURBOCHARGED DIRECT INJECTION) respondents is 31, CRDi (COMMON RAIL DIRECT INJECTION) respondents is 9. So, GTi (GRAND TOURING INJECTION) respondents is 50 is the maximum when compared to remaining respondents.

9. Which type of fuel car do you prefer to buy?

- A) Petrol
- B) Diesel
- C) CNG
- D) Electrical

TYPE	NO OF RESPONDENTS
PETROL	65
DIESEL	34
CNG	8



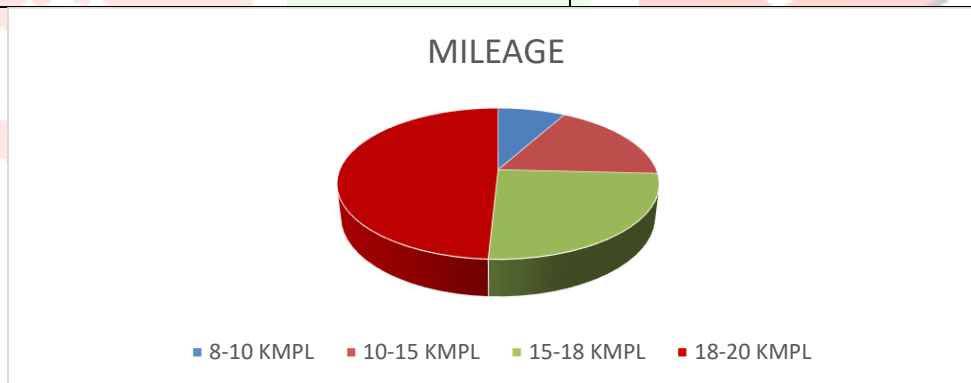
INTERPRETATION:-

From the above table, total no of respondents is 124. From table it is clear that Petrol respondents is 65, Diesel respondents is 34, CNG respondents is 8, Electrical respondents is 17. So, Petrol 65 is the maximum respondents when compared to remaining respondents.

10. How much mileage you expect from car?

- A) 8-10 kmpl
- B) 10-15 kmpl
- C) 15-18 kmpl
- D) 18-20 kmpl

MILEAGE	NO OF RESPONDENTS
8-10 KMPL	10
10-15 KMPL	22
15-18 KMPL	31
18-20 KMPL	61
TOTAL	124



INTERPRETATION:-

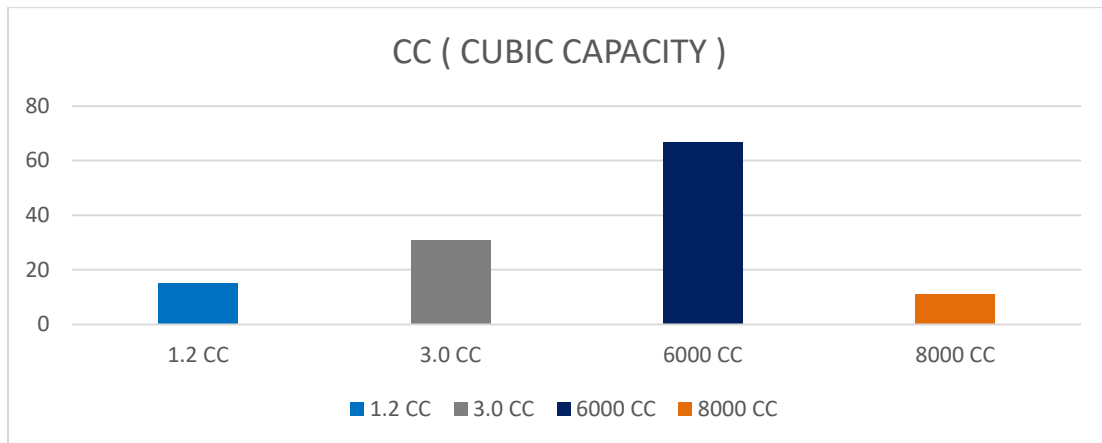
From the above table, total no of respondents is 124. From table it is clear that, 8-10 kmpl respondents is 10, 10-15 kmpl respondents is 22, 15-18 kmpl respondents is 31 and 18-20 kmpl respondents is 61. So, 18-20 kmpl respondents is more when compared to remaining respondents.

11. How much CC (CUBIC CAPACITY) do you expect in car?

- A) 1.2 CC
- B) 3.0 CC
- C) 6000 CC
- D) 8000 CC

CC (CUBIC CAPACITY)	NO OF RESPONDENTS
1.2 CC	15
3.0 CC	31
6000 CC	67

8000 CC	11
TOTAL	124



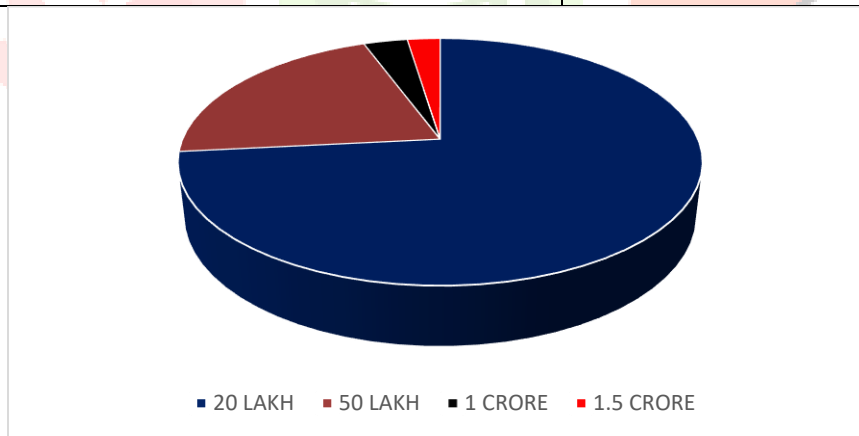
INTERPRETATION:-

From the above table, total no of respondents is 124. From table it is clear, 1.2 CC respondents is 15, 3.0 CC respondents is 31, 6000 CC respondents is 67, 8000 CC respondents is 11. So, 6000 CC respondents is more when compared to remaining respondents

12. How much can you afford to purchase car?

- A) 20 LAKH
- B) 50 LAKH
- C) 1 CRORE
- D) 1.5 CRORE

AFFORD	NO OF RESPONDNETS
20 LAKH	91
50 LAKH	26
1 CRORE	4
1.5 CRORE	3
TOTAL	124



INTERPRETATION:-

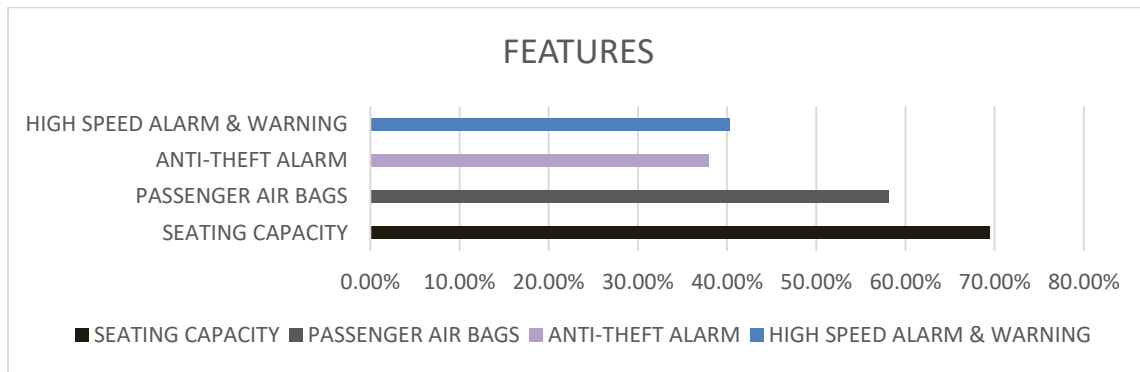
From the above table, total no of respondents is 124. From table it is clear 91 respondents chosen 20 Lakh, 26 respondents chosen 50 Lakh, 4 respondents chosen 1 Crore, 3 respondents chosen 1.5 Crore. So, 91 respondents for 20 lakh is maximum when compared to remaining respondents.

13. What feature do you expect from car?

- A) SEATING CAPACITY
- B) PASSENGER AIR BAGS
- C) ANTI-THEFT ALARM
- D) HIGH SPEED ALARM & WARNING

FEATURES	NO OF RESPONDENTS
Seating capacity	69.40%
Passenger air bags	58.10%

Anti-Theft alarm	37.90%
High speed alarm & warning	40.30%
TOTAL	124

**INTERPRETATION:-**

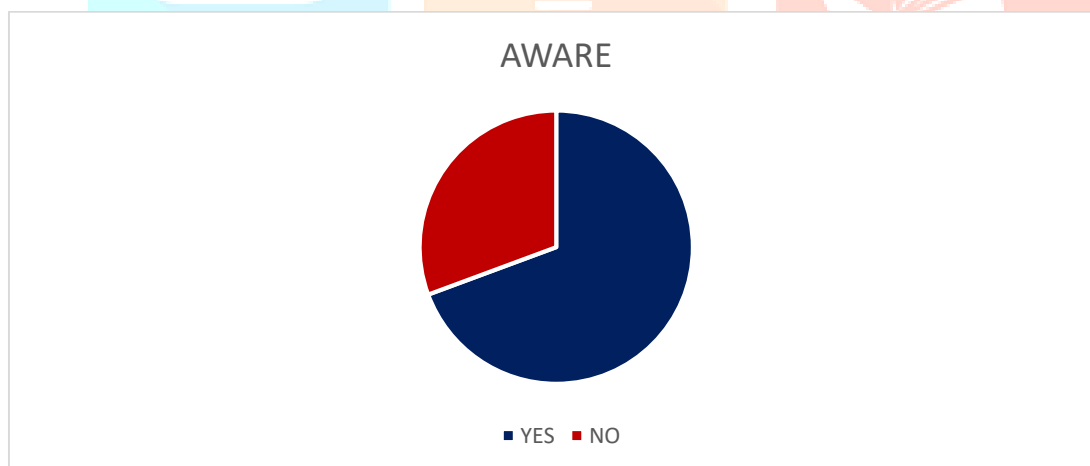
From the above table, total no of respondents is 124. From table it is clear 69.40% chosen for seating capacity, 58.10% chosen for passenger air bags, 37.90% chosen for anti-theft alarm and 40.30% chosen for high-speed alarm & warning. So, 69.40% for seating capacity is maximum when compared to remaining responses.

14. Are you aware of fuel flex engines?

A) YES

B) NO

AWARE	NO OF RESPONDENTS
YES	86
NO	38
TOTAL	124

**INTERPRETATION:-**

From the above table, total no of respondents is 124. From table it is clear, 86 respondents chosen for Yes and 38 respondents chosen for No. So, 86 respondents is maximum than No respondents.

15. What benefits do you expect after buying Fuel Flex car?

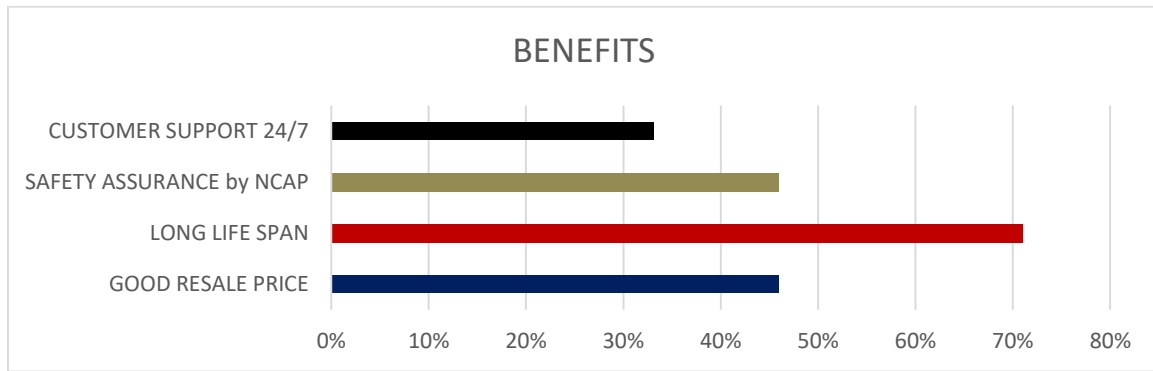
A) Good resale price

B) Long life span

C) Safety assurance by NCAP

D) Customer support 24/7

BENEFITS	NO OF RESPONDENTS
Good resale price	46%
Long life span	71%
Safety assurance by NCAP	46%
Customer Support 24/7	33.10%
TOTAL	124



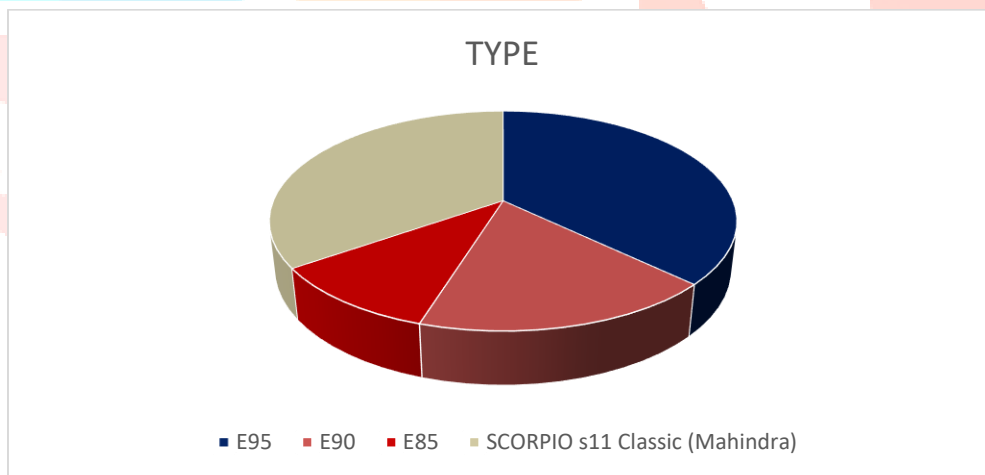
INTERPRETATION:-

From the above table, total no of respondents is 124. From table it is clear, 46% response for Good resale price, 71% response for long life span, 46% response for safety assurance by NCAP, 33.10% response for customer support 24/7. So, 71% response for long life span is maximum when compared to remaining responses

16. Which type(awareness) of Fuel Flex cars do you prefer to buy?

- A) E95 (TOYOTA)
- B) E90 (TOYOTA)
- C) E85 (TOYOTA)
- D) SCORPIO s11 classic (mahindra)

TYPE	NO OF RESPONDNETS
E95 (TOYOTA)	46
E90 (TOYOTA)	22
E85 (TOYOTA)	13
SCORPIO s11 CLASSIC (MAHINDRA)	43
TOTAL	124



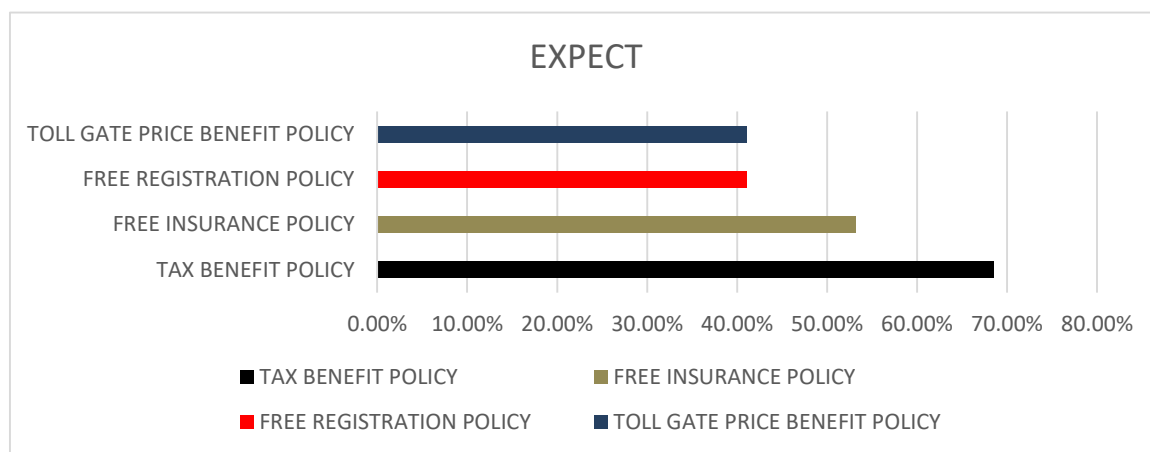
INTERPRETATION:-

From the above table, total no of respondents is 124. From the table it is clear that, 46 responses chosen for E95, 22 responses for E90, 13 responses for E85 and 43 responses for SCORPIO s11 CLASSIC. So 46 responses for E95 TOYOTA is the maximum when compared to remaining responses.

17. What policies do you Expect(awareness) from Government to buy Fuel flex car?

- A) Tax benefit policy
- B) Free insurance policy
- C) Free registration policy
- D) Toll gate price benefit policy

EXPECT	NO OF RESPONDNETS
TAX BENEFIT POLICY	68.50%
FREE INSURANCE POLICY	53.20%
FREE REGISTRATION POLICY	41.09%
TOLL GATE PRICE BENEFIT POLICY	41.01%
TOTAL	124



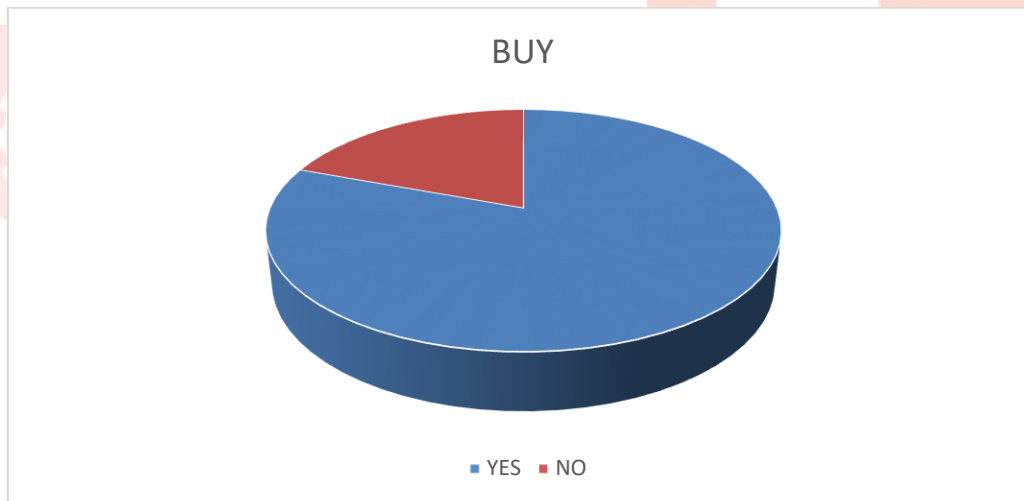
INTERPRETATION:-

From the above table, total no of respondents is 124. From the table it is clear that, 68.50% of response for tax benefit policy, 53.20% of response for free insurance policy, 41.09% of response for free registration policy, 41.01% of response for toll gate price benefit policy. So 68.50% is maximum response for tax benefit policy when compared to remaining responses.

18. Are you willing to buy FUEL FLEX Car?

- A) YES
- B) NO

BUY	NO OF RESPONDENTS
YES	100
NO	24
TOTAL	124



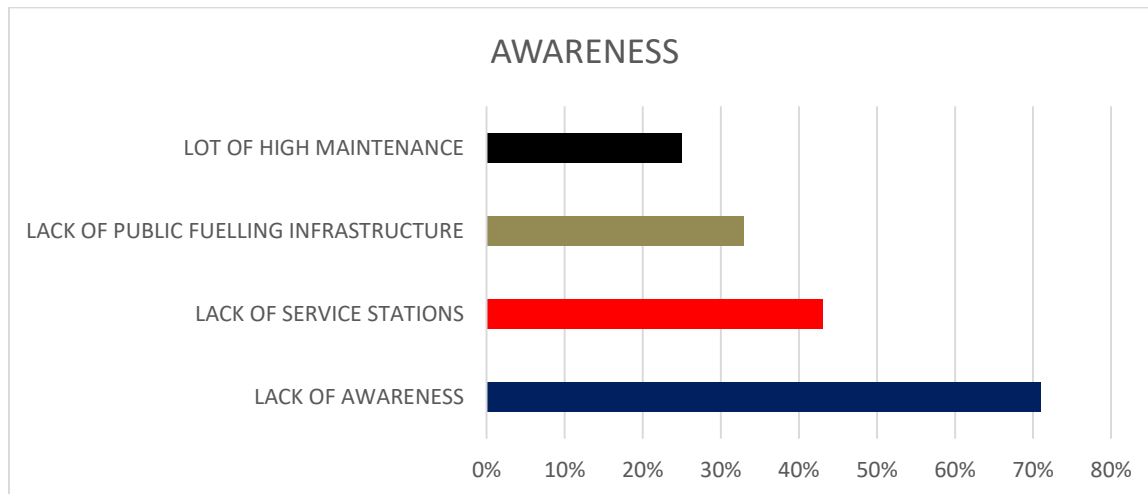
INTERPRETATION:-

From the above table, total no of responses is 124. From the table it is clear that Yes got the responses of 100 and NO got the responses of 24. So YES for 100 responses is the maximum than NO of 24.

19. What are the Obstacles for Customers to Buy Fuel Flex Car?

- A) Lack of Awareness
- B) Lack of service stations
- C) Lack of public fuelling infrastructure
- D) Lot of high maintenance

AWARENESS	NO OF RESPONDENTS
LACK OF AWARENESS	71%
LACK OF SERVICE STATIONS	43.05%
LACK OF PUBLIC FUELLING INFRASTRUCTURE	33.01%
LOT OF HIGH MAINTENANCE	25.08%
TOTAL	124

**INTERPRETATION:-**

From the above table, total no of respondents is 124. From the table it is clear, 71% of response is for lack of awareness, 43.05% of response is for lack of service stations, 33.01% of response is for lack of public fuelling infrastructure, 25.08% of response is for lot of high maintenance. So, 71% of response is the maximum when compared to the remaining responses.

STATISTICAL ANALYSIS

Ho: there is no significant difference in awareness of fuel flex engines based on gender

H1: there is significant difference in awareness of fuel flex engines based on gender

Gender/awareness	yes	no	total
Male	55	20	75
Female	31	18	49
Total	86	38	124

Chi square

Observed frequency	Expected frequency	O-E	(O-E) ²	(O-E) ² /E
55	$75 \cdot 86 / 124 = 52$	3	9	0.17
20	$75 \cdot 38 / 124 = 23$	-3	9	0.39
31	$86 \cdot 49 / 124 = 34$	-3	9	0.26
18	$49 \cdot 38 / 124 = 15$	3	9	0.6
			Total(cal)	1.42

D.F : $(r-1)(c-1) = (2-1)(2-1) = 1$

LOS 5% = 0.05

Cal value 1.42

Tabulated value : 3.84

Since calculated value 1.42 is less than tabulated value 3.84 accept Ho.

Conclusion: there is no significant difference in awareness of fuel flex engines based on gender

Ho : There is no significant difference in marital status regarding purchase of fuel flex engines.

H1 : There is significant difference in marital status regarding purchase of fuel flex engines.

Gender/awareness	yes	no	total
Married	11	10	21
Unmarried	89	14	103
Total	100	24	124

Observed frequency	Expected frequency	O-E	(O-E) ²	(O-E) ² /E
11	$21 \cdot 100 / 124 = 17$	-6	36	2.11
10	$21 \cdot 24 / 124 = 4$	6	36	9
89	$100 \cdot 103 / 124 = 83$	6	36	0.43
14	$24 \cdot 103 / 124 = 20$	-6	36	1.8

			total	13.34
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D.F : $(r-1)(c-1) = (2-1)(2-1) = 1$

LOS 5% = 0.05

Cal value 13.34

Tabulated value : 3.84

Since calculated value 13.34 is more than tabulated value 3.84 accept H1

Conclusion: There is significant difference in marital status regarding purchase of fuel flex engines. Unmarried people are willing to purchase more of this type engines.

FINDINGS:-

1. Total no of Respondents are 124. From the table it is clear that Male respondents are 75 and Female respondents are 49. So, Male respondents are more than Female respondents.
2. total no of respondents are 124. From the table it is clear that joint family respondents are 32 and nuclear family respondents are 92. So, Nuclear family respondents are more than joint family.
3. total no of respondents are 124. From this table it is clear that 5-7 lakh respondents are 94, 7-10 lakh respondents are 25, 10-13 lakh respondents are 2 and above 13 lakh respondents are 3. So, 5-7 lakh respondents are more when compared to others.
4. total no of respondents are 124. From table it is clear that Yes respondents is 71 and No respondents is 53. So, Yes 71 respondents is more than no 53 respondents.
5. total no of respondents are 124. From table it is clear that highly satisfied respondents are 27, satisfied respondents are 56, neutral respondents are 33, dissatisfied respondents are 4 and highly dissatisfied respondents are 4. So, satisfied respondents are more when compared to remaining respondents.
6. No of respondents are 124. From the table it is clear that YES is 91 respondents and NO is 33 respondents. So, Yes 91 is the maximum respondents than No 33.
7. total no of respondents is 124. From table it is clear that, SUV (SPORTS UTILITY VEHICLE) respondents is 51, LUV (LUXURY UTILITY VEHICLE) respondents is 28, MUV (MULTI UTILITY VEHICLE) respondents is 38, HATCHBACK respondents is 7. So, SUV (SPORTS UTILITY VEHICLE) respondents 51 is the maximum, when compared to remaining respondents.
8. total no of respondents is 124. From table it is clear that GTi (GRAND TOURING INJECTION) respondents is 50, TSi (TURBO STRATIFIED INJECTION) respondents is 34, TDi (TURBOCHARGED DIRECT INJECTION) respondents is 31, CRDi (COMMON RAIL DIRECT INJECTION) respondents is 9. So, GTi (GRAND TOURING INJECTION) respondents is 50 is the maximum when compared to remaining respondents.
9. total no of respondents is 124. From table it is clear that Petrol respondents is 65, Diesel respondents is 34, CNG respondents is 8, Electrical respondents is 17. So, Petrol 65 is the maximum respondents when compared to remaining respondents.
10. total no of respondents is 124. From table it is clear that, 8-10 kmpl respondents is 10, 10-15 kmpl respondents is 22, 15-18 kmpl respondents is 31 and 18-20 kmpl respondents is 61. So, 18-20 kmpl respondents is more when compared to remaining respondents.
11. total no of respondents is 124. From table it is clear, 1.2 CC respondents is 15, 3.0 CC respondents is 31, 6000 CC respondents is 67, 8000 CC respondents is 11. So, 6000 CC respondents is more when compared to remaining respondents.
12. total no of respondents is 124. From table it is clear 91 respondents chosen 20 Lakh, 26 respondents chosen 50 Lakh, 4 respondents chosen 1 Crore, 3 respondents chosen 1.5 Crore. So, 91 respondents for 20 lakh is maximum when compared to remaining respondents.
13. total no of respondents is 124. From table it is clear 69.40% chosen for seating capacity, 58.10% chosen for passenger air bags, 37.90% chosen for anti-theft alarm and 40.30% chosen for high-speed alarm & warning. So, 69.40% for seating capacity is maximum when compared to remaining responses.
14. total no of respondents is 124. From table it is clear, 86 respondents chosen for Yes and 38 respondents chosen for No. So, 86 respondents is maximum than No respondents.
15. total no of respondents is 124. From table it is clear, 46% response for Good resale price, 71% response for long life span, 46% response for safety assurance by NCAP, 33.10% response for customer support 24/7. So, 71% response for long life span is maximum when compared to remaining responses.
16. total no of respondents is 124. From the table it is clear that, 46 responses chosen for E95, 22 responses for E90, 13 responses for E85 and 43 responses for SCORPIO s11 CLASSIC. So 46 responses for E95 TOYOTA is the maximum when compared to remaining responses.

17. total no of respondents is 124. From the table it is clear that, 68.50% of response for tax benefit policy, 53.20% of response for free insurance policy, 41.09% of response for free registration policy, 41.01% of response for toll gate price benefit policy. So 68.50% is maximum response for tax benefit policy when compared to remaining responses.
18. total no of responses is 124. From the table it is clear that Yes got the responses of 100 and NO got the responses of 24. So YES for 100 responses is the maximum than NO of 24.
19. total no of respondents is 124. From the table it is clear, 71% of response is for lack of awareness, 43.05% of response is for lack of service stations, 33.01% of response is for lack of public fuelling infrastructure, 25.08% of response is for lot of high maintenance. So, 71% of response is the maximum when compared to the remaining responses.

SUMMARY OF THE STUDY

The summary of this project is about the fuel flex engines, which is upcoming growth in automobile industry in India to cut short the fuel prices as huge burden on consumers, by the combination of ethanol, methanol and gasoline.

CONCLUSION OF THE STUDY

From the data analysis, fuel flex engines which are launched in India of various models like E95, E90, E85 from Toyota and Scorpio The study of fuel flex engines gave a conclusion that CMRIT faculty is aware about the s11 Classic from Mahindra.

SUGGESTIONS OF THE STUDY

1. The customers expected the long life span for fuel flex engines as compared to present Diesel & Petrol Engines.
2. To purchase the fuel flex engines, customers demand the government to provide free tax benefit policy.
3. The customers expectation is to get features like good seating capacity in the fuel flex engine cars .

