"A Study Of Factors Influencing Purchase of A Sedan Car In Indore Region"

***Dr.Nitin Tanted ** Shreya Lalwani**

CONCEPTUAL FRAMEWORK

INTRODUCTION:

Shinde G P and Dubey M (2011), "A sedan is a passenger car in a three-box configuration with separate compartments for engine, passenger, and cargo. Sedan's first recorded use as a name for a car body was in 1912. The name comes from a 17th-century development of a litter, the sedan chair, a one-person enclosed box with windows and carried by porters. Variations of the sedan style of body include close-coupled sedan, club sedan, convertible sedan, fastback sedan, hardtop sedan, notchback sedan and Sudanet/Sedan Ette."

Campos R, Suarez M, do Nascimento T and Molica F (2012), The current definition of a sedan is a car with a closed body (i.e. a fixed metal roof) with the engine, passengers, and cargo in separate compartments. This broad definition does not differentiate sedans from various other car body styles, but in practice the typical characteristics of sedans are:

- A B-pillar (between the front and rear windows) that supports the roof
- Two rows of seats
- A three-box design with the engine at the front and the cargo area at the rear
- A less steeply sloping roofline than a coup, which results in increased headroom for rear
- passenger and a less sporting appearance.

Vashisht P (2008), "Sedans are distinct from other body styles by having two full-access rows for seating, and some form of cargo space at the rear accessible by a trunk.

Sedans can vary in size, length and volume, but for a car to be called a sedan it generally means four doors, engine in the front, trunk in the back. Sedans are distinct from wagons, which also have four doors, but which have an optional third row for seating accessible via a liftgate or tailgate."

Dhole P (2013), "Usually when one uses the word "sedan" they're talking about a mid-size or full-size vehicle. Compact and smaller cars also come in sedan form (four doors with trunk) but the word "sedan" is just describing its form factor. (When one says, "I need to rent a sedan" they're usually not meaning a Honda Civic 4-door. They're talking about something more like an Accord.)"

Ranawat M and Tiwari R (2009), "Also, sedans are not typically known for their performance capabilities. There are *sports sedans* which are (Mazda6, Nissan Maxima, Infiniti G37), but these are a small subset of the class. For the most part, sedans are cushy, smooth, full of passenger amenities and designed for daily, utility driving with an emphasis on comfort and reliability rather than driving excitement."

Automobile Sector

Becker D (2013), "The Indian automobile industry is the ninth largest in the world. India is the second largest market for two wheelers, the fourth largest market for commercial four wheelers, and the eleventh largest for passenger cars. With continued rapid growth, India may soon become the third largest market for automobiles in the world, next only to USA and China. The automobile industry is also a significant contributor to India's GDP, and provides direct and indirect employment to over 10 million people, including those in the raw material and ancillary industries. India is expected to top the world in automobile population with approximately 611 million vehicles on the nation's roads by 2050."

Bhaskar V (2013), "The Sedan car market in India too has witnessed considerable growth in the recent years. This is a high visibility segment of the automobile industry and has attracted many of the world's leading passenger manufacturers to invest in and market their products in India. Given this background, it was decided to carry out a study that would help in understanding the parameters that influence Indian consumers' choice of a passenger car (sedan in particular) and consumers' perceptions regarding selected brands of popular sedans."

India Brand Equity Foundation (2019), "The Indian auto industry became the 4th largest in the world with sales increasing 9.5 per cent year-on-year to 4.02 million units (excluding two wheelers) in 2017. It was the 7th largest manufacturer of commercial vehicles in 2018.

India is also a prominent auto exporter and has strong export growth expectations for the near future. Automobile exports grew 14.5 per cent during FY 2019. It is expected to grow at a CAGR of 3.05 per cent during 2016-2026. In addition, 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."

India Brand Equity Foundation (2019), "Overall domestic automobiles sales increased at 6.71 per cent CAGR between FY13-19 with 26.27 million vehicles getting sold in FY19. Domestic automobile production increased at 6.96 per cent CAGR between FY13-19 with 30.92 million vehicles manufactured in the country in FY19
In FY19, year-on-year growth in domestic sales among all the categories was recorded in commercial vehicles at 17.55 per cent followed by 10.27 per cent year-on-year growth in the sales of three-wheelers."

India Brand Equity Foundation (September 2019), "The government aims to develop India as a global manufacturing as well as a research and development (R&D) hub. It has set up National Automotive Testing and R&D Infrastructure Project (NATRiP) centres as well as a National Automotive Board to act as facilitator between the government and the industry. Under (NATRIP), five testing and research centres have been established in the country since 2015. NATRIP's proposal for Grant-In-Aid for test facility infrastructure for Electric Vehicle (EV) performance Certification from NATRIP Implementation Society under FAME Scheme which

had been approved by Project Implementation and Sanctioning Committee (PISC) on 3rd January 2019."

India Brand Equity Foundation (September 2019), "The Indian government has also set up an ambitious target of having only electric vehicles being sold in the country. Indian auto industry is expected to see 8-12 per cent increase in its hiring during FY19. The Ministry of Heavy Industries, Government of India has shortlisted 11 cities in the country for introduction of electric vehicles (EVs) in their public transport systems under the FAME (Faster Adoption and Manufacturing of (Hybrid) and Electric Vehicles in India) scheme. The first phase of the scheme has been extended to March 2019 while In February 2019, the Government of India approved the FAME-II scheme with a fund requirement of Rs 10,000 crore (US$ 1.39 billion) for FY20-22. Number of vehicles supported under FAME scheme has increased to 192,451 units in March 2018 from 5,197 units in June 2015. On July 29, 2019, Inter-ministerial panel has sanctioned 5,645 electric buses for 65 cities."

Overall automobile exports reached 4.63 million vehicles in FY19, implying a CAGR of 8.11 per cent between FY13-19. Automobile exports grew 14.50 per cent in FY19. It is expected to grow at a CAGR of 3.05 per cent during 2016-2026.

GST – Goods and Services Tax

REVIEW OF LITERATURE

Du *et al.* (2015) have pointed out the growing experience and significance of different product features in shaping consumers' buying decisions, which is also relevant for the automotive industry.

Malhotra *et al.* (2015) have stated that the Indian automobile industry had experienced remarkable transformation during the last 10 years with a growth rate of 11.5%.

According to a report published by KPMG **(Becker, 2013)**, the Indian automobile sector is at a point of expansion. The report highlights several issues, which provide directions to automobile manufacturers as to how they could take advantage of opportunities that would arise in the coming years.

In a paper by **Bhaskar (2013)**, it has been asserted that the Indian automobile industry and the Indian market for automobiles are quite significant by global standards, prompting many foreign companies to enter the Indian market to capture a part of the business.

Campos *et al.* (2012) researched on consumption pattern of automobiles and found specific individualistic differentiable pattern of consumer behavior, which they referred to as longitudinal rite of passage.

The research by **Shinde and Dubey (2011)** on the automobile industry, which covered the period from 2005 to 2010, deduce that the industry was dynamic and sustainable even during the phases of recession, due to its differentiable nature and strength.

According to **Ranawat and Tiwari (2009)**, the development of the automobile industry from starting to current time has helped to build some of the crucial financial and strategic policies of the Indian government.

According to the study conducted by **Vashisht (2008)**, the Indian automobile sector enjoys several important determinants of competitiveness, which facilitate its economic sustainability in the market.

Valentinia (2002), Shinde and Dubey (2011) and Dhole (2013) in their research showed that the automobile sector is very high in contribution and is also an integral part of the Indian economy; and also any further study on automobiles could throw more light for the betterment of the industry as a whole.

Nikhil Monga, Bhuvender Chaudhary, Car Market and Buying behavior - A study on Consumer Perception, IJRMEC Vol.2, Issue-2, pp. 44-63, Feb 2012.

RATIONALE OF THE STUDY

This study will help us to find out, how people have different perception about purchasing sedan cars in Indore because very few researches have been done in Indore region.

This tells us how various number of factors affect the behaviour of customers regarding the purchase of sedan cars in Indore and helps in selecting the car.

This research helps in identifying different opinions of people regarding the purchase sedan cars. This research will give me an insight about people perception regarding purchase of sedan cars in Indore.

OBJECTIVE

To find out the parameters influencing the purchase of sedan cars in Indore region.

CHAPTER 2

METHODOLOGY

RESEARCH METHODOLOGY

The Study:

The study is empirical in nature.

The Sample:

The Sample is collected from 138 respondents residing in Indore city.

Tools for Data Collection:

A self-structured questionnaire was constructed to collect the data from Indore region.

Tools for Data Analysis:

Factor Analysis is used for data analysis. Factor analysis is a method of data reduction. Factor analysis is a statistical technique for identifying which underlying factors are measured by a (much larger) number of observed variables. Such "underlying factors" are often variables that are difficult to measure such as IQ, depression or extraversion. For measuring these, we often try to write multiple questions that -at least partially- reflect such factors.

CHAPTER 3

RESULTS AND ANALYSIS

Table 1

Age of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 21-30	95	68.8	68.8	68.8
31-40	20	14.5	14.5	83.3
41-50	8	5.8	5.8	89.1
51-60	6	4.3	4.3	93.5
61 & above	9	6.5	6.5	100.0
Total	138	100.0	100.0	

Graph 1

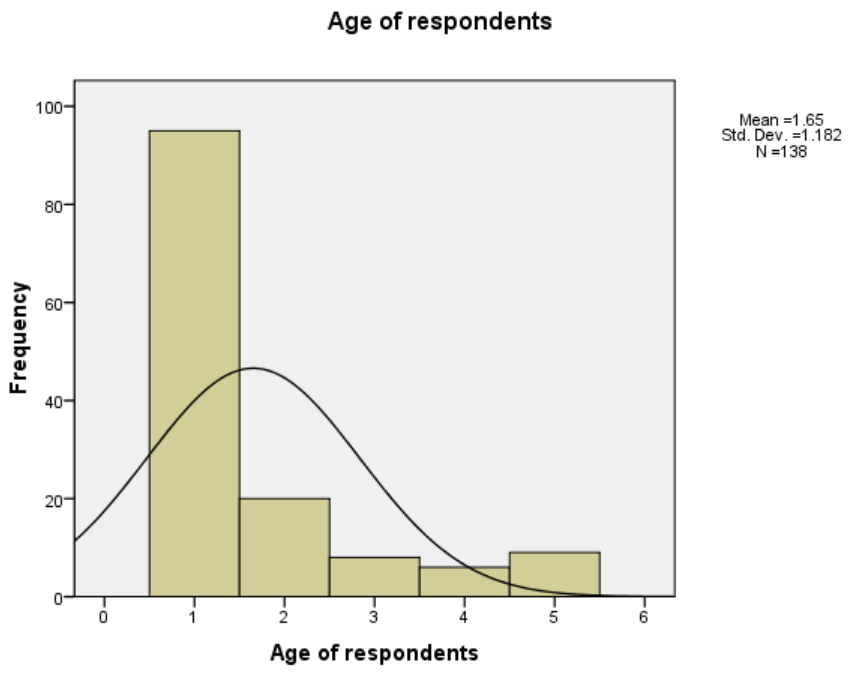


Table 2

Gender of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	72	52.2	52.2	52.2
	Female	66	47.8	47.8	100.0
	Total	138	100.0	100.0	

Graph 2

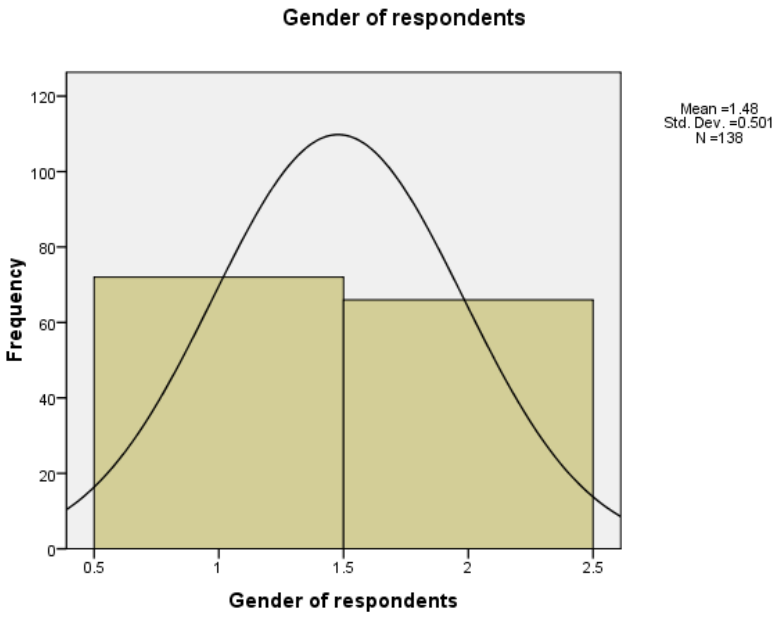


Table 3

Occupation of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Business	64	46.4	46.4	46.4
Service	74	53.6	53.6	100.0
Total	138	100.0	100.0	

Graph 3

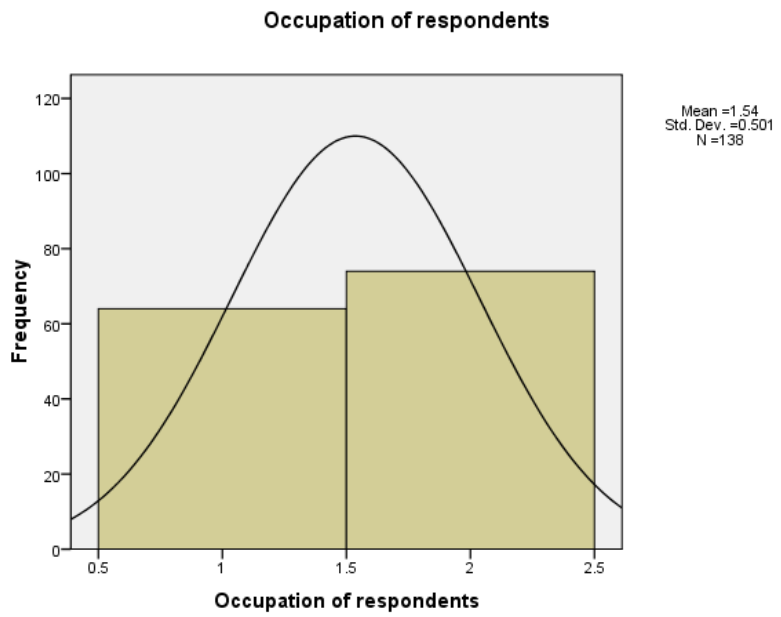


Table 4

User Control

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	80	58.0	58.0	58.0
	Important	37	26.8	26.8	84.8
	Neutral	20	14.5	14.5	99.3
	Very Unimportant	1	.7	.7	100.0
	Total	138	100.0	100.0	

Graph 4

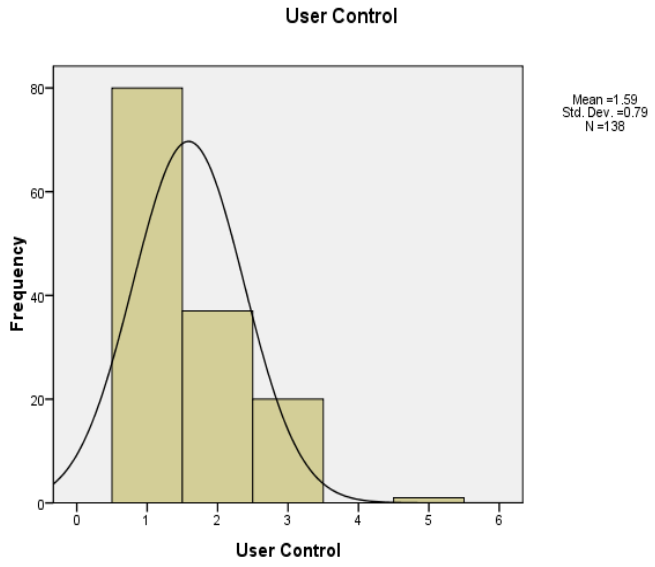


Table 5

Space (Leg room & Head space)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	56	40.6	40.6	40.6
	Important	71	51.4	51.4	92.0
	Neutral	9	6.5	6.5	98.6
	Very Unimportant	2	1.4	1.4	100.0
	Total	138	100.0	100.0	

Graph 5

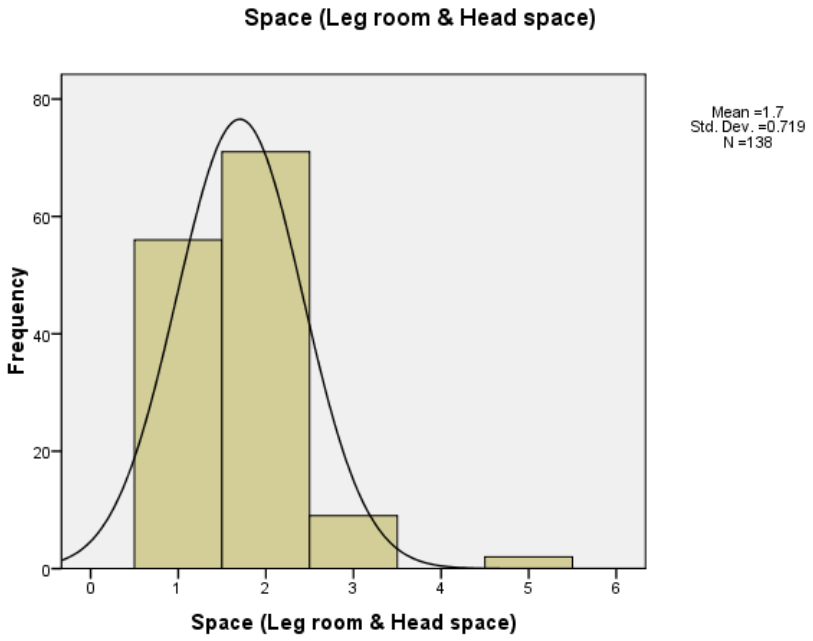


Table 6

Reverse Park Assist

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	59	42.8	42.8	42.8
	Important	46	33.3	33.3	76.1
	Neutral	30	21.7	21.7	97.8
	Very Unimportant	3	2.2	2.2	100.0
	Total	138	100.0	100.0	

Graph 6

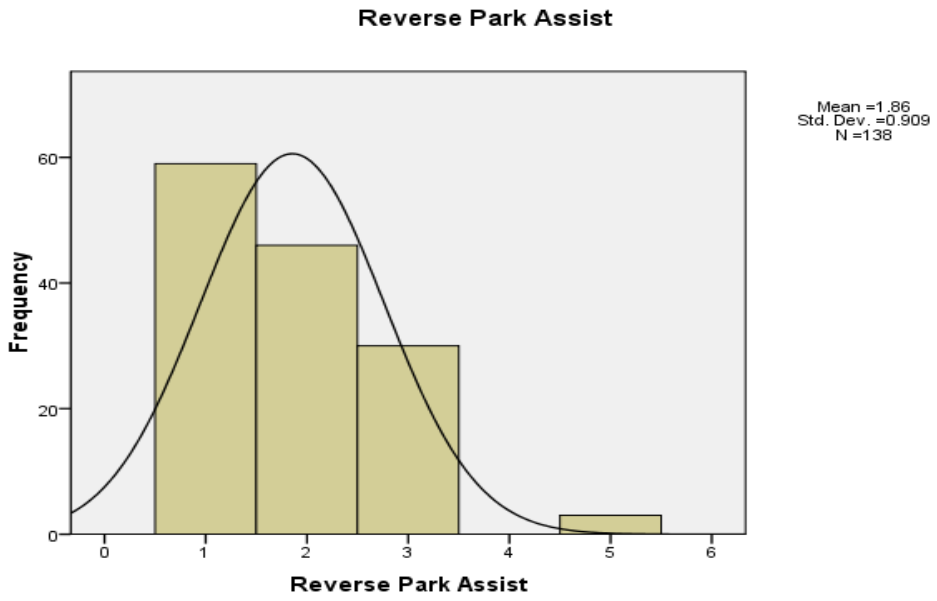


Table 7

Seat Controls

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	44	31.9	31.9	31.9
	Important	63	45.7	45.7	77.5
	Neutral	28	20.3	20.3	97.8
	Unimportant	3	2.2	2.2	100.0
	Total	138	100.0	100.0	

Graph 7

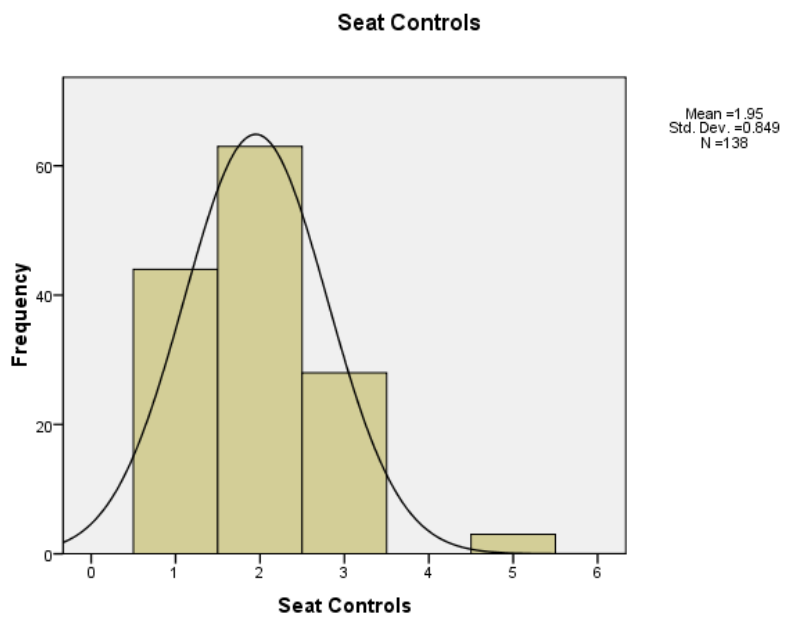


Table 8

Infotainment System

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Important	63	45.7	45.7	45.7
	Very Important	51	37.0	37.0	82.6
	Neutral	19	13.8	13.8	96.4
	Unimportant	1	.7	.7	97.1
	Very Unimportant	4	2.9	2.9	100.0
	Total	138	100.0	100.0	

Graph 8

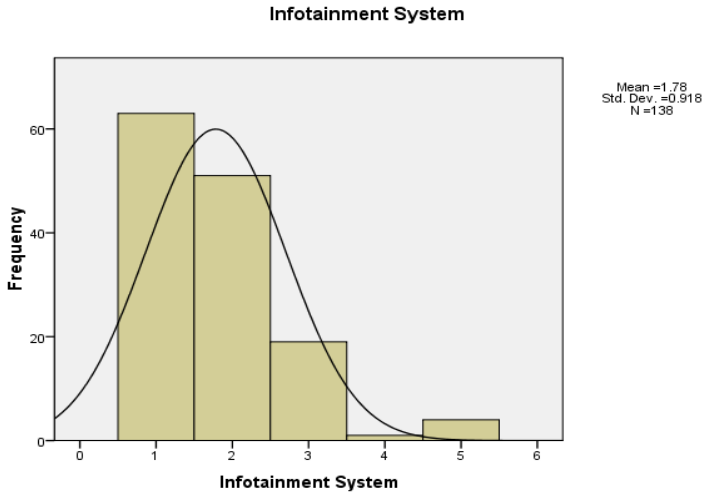


Table 9

Added Features

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	45	32.6	32.6	32.6
	Important	66	47.8	47.8	80.4
	Neutral	23	16.7	16.7	97.1
	Unimportant	1	.7	.7	97.8
	Very Unimportant	3	2.2	2.2	100.0
	Total	138	100.0	100.0	

Graph 9

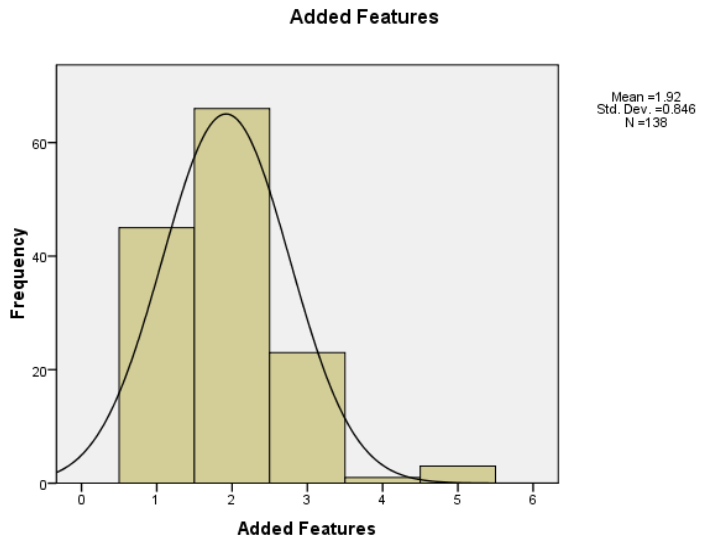


Table 10

Safety

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	72	52.2	52.2	52.2
	Important	51	37.0	37.0	89.1
	Neutral	13	9.4	9.4	98.6
	Very Unimportant	2	1.4	1.4	100.0
	Total	138	100.0	100.0	

Graph 10

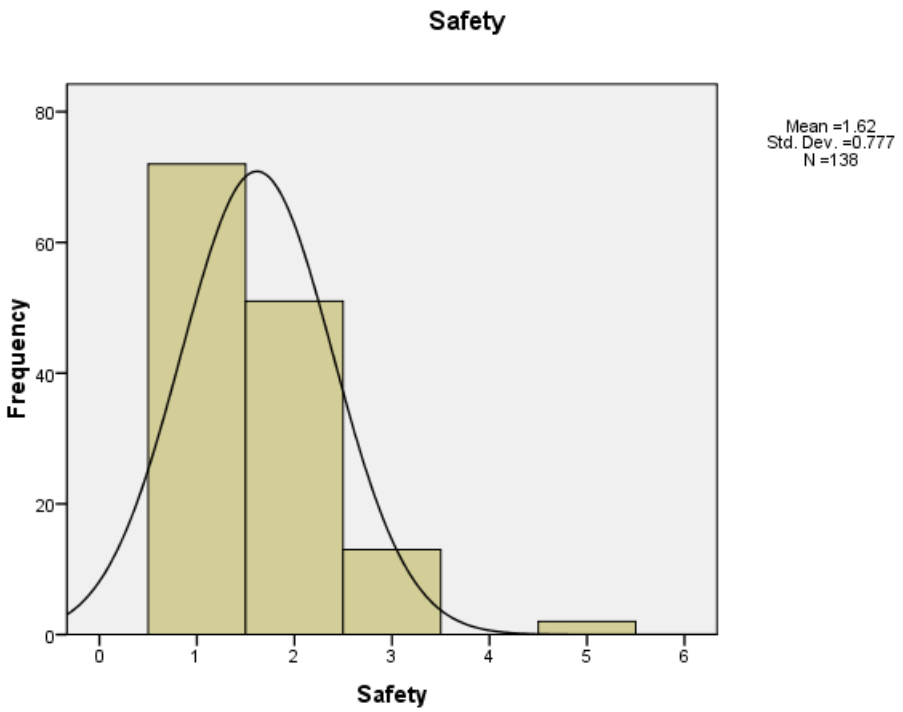


Table 11

Mileage

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	52	37.7	37.7	37.7
	Important	68	49.3	49.3	87.0
	Neutral	14	10.1	10.1	97.1
	Unimportant	2	1.4	1.4	98.6
	Very Unimportant	2	1.4	1.4	100.0
	Total	138	100.0	100.0	

Graph 11

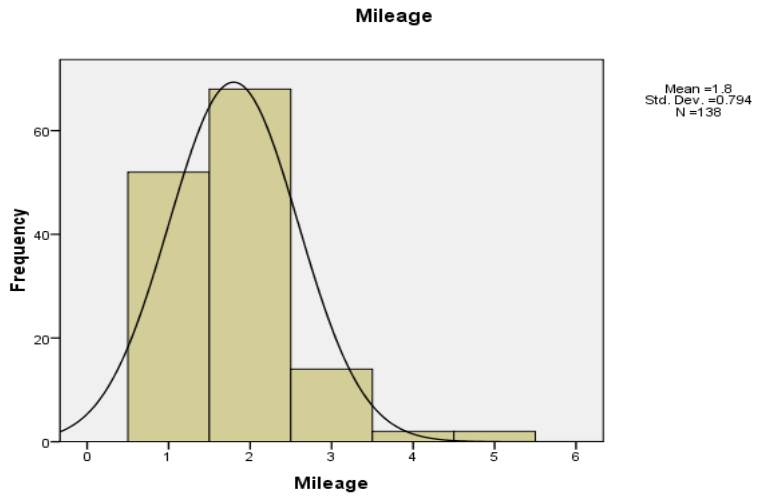


Table 12

Speed, Power & Acceleration

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	62	44.9	44.9	44.9
	Important	44	31.9	31.9	76.8
	Neutral	28	20.3	20.3	97.1
	Very Unimportant	4	2.9	2.9	100.0
	Total	138	100.0	100.0	

Graph 12

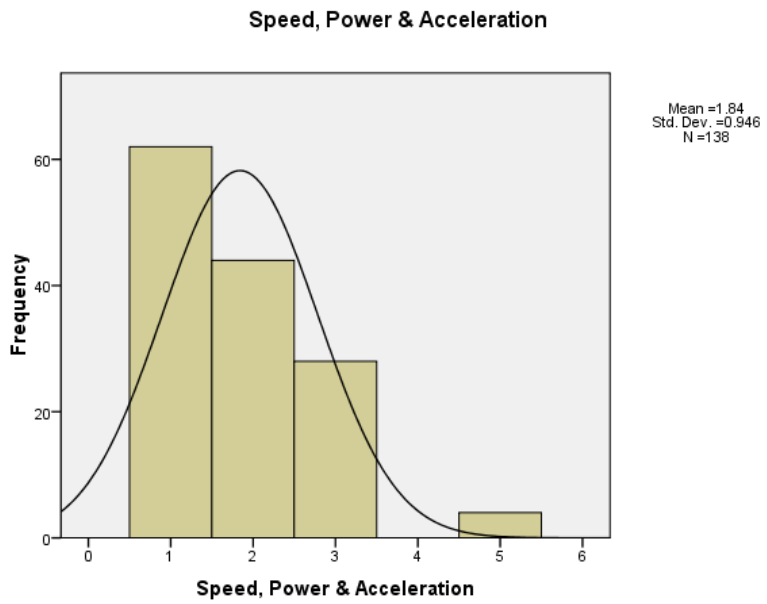


Table 13

Boot Space

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	48	34.8	34.8	34.8
	Important	64	46.4	46.4	81.2
	Neutral	20	14.5	14.5	95.7
	Unimportant	1	.7	.7	96.4
	Very Unimportant	5	3.6	3.6	100.0
	Total	138	100.0	100.0	

Graph 13

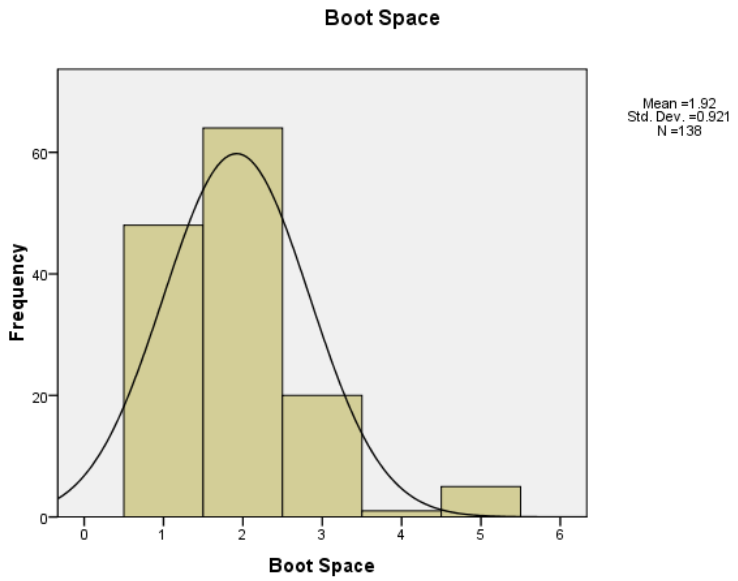


Table 14

Fuel Type

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	60	43.5	43.5	43.5
	Important	53	38.4	38.4	81.9
	Neutral	18	13.0	13.0	94.9
	Very Unimportant	7	5.1	5.1	100.0
	Total	138	100.0	100.0	

Graph 14

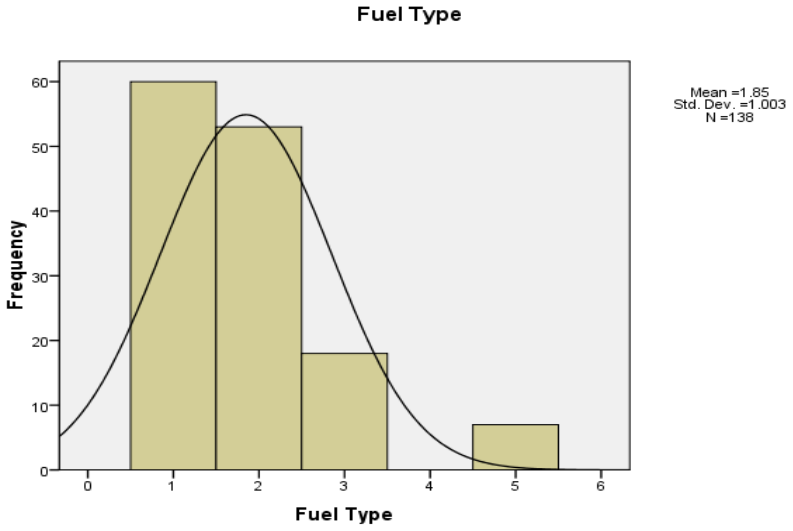


Table 15

Service Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	54	39.1	39.1	39.1
	Important	60	43.5	43.5	82.6
	Neutral	17	12.3	12.3	94.9
	Unimportant	1	.7	.7	95.7
	Very Unimportant	6	4.3	4.3	100.0
	Total	138	100.0	100.0	

Graph 15

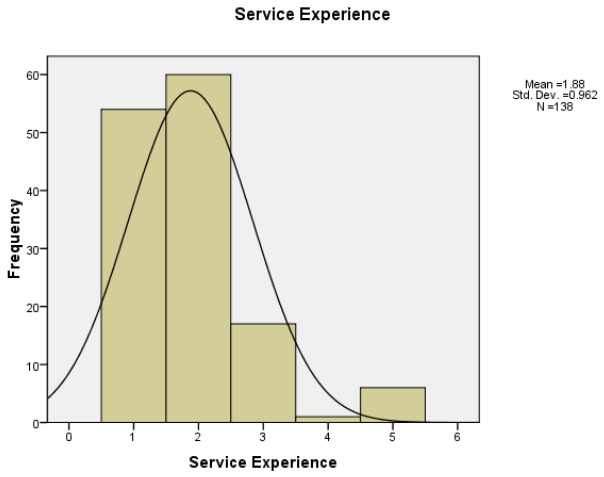


Table 16

Air Conditioning

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	70	50.7	50.7	50.7
	Important	47	34.1	34.1	84.8
	Neutral	12	8.7	8.7	93.5
	Unimportant	2	1.4	1.4	94.9
	Very Unimportant	7	5.1	5.1	100.0
	Total	138	100.0	100.0	

Graph 16

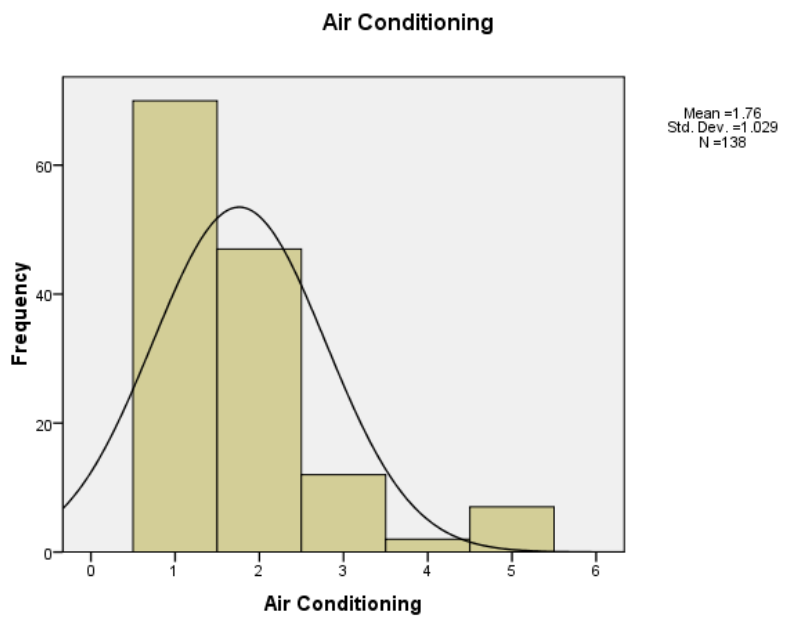


Table 17

Popularity of Brand

	Frequenc	Percent	Valid	Cumulative

	y		Percent	Percent
Valid Very Important	56	40.6	40.6	40.6
Important	57	41.3	41.3	81.9
Neutral	21	15.2	15.2	97.1
Unimportant	1	.7	.7	97.8
Very Unimportant	3	2.2	2.2	100.0
Total	138	100.0	100.0	

Graph 17

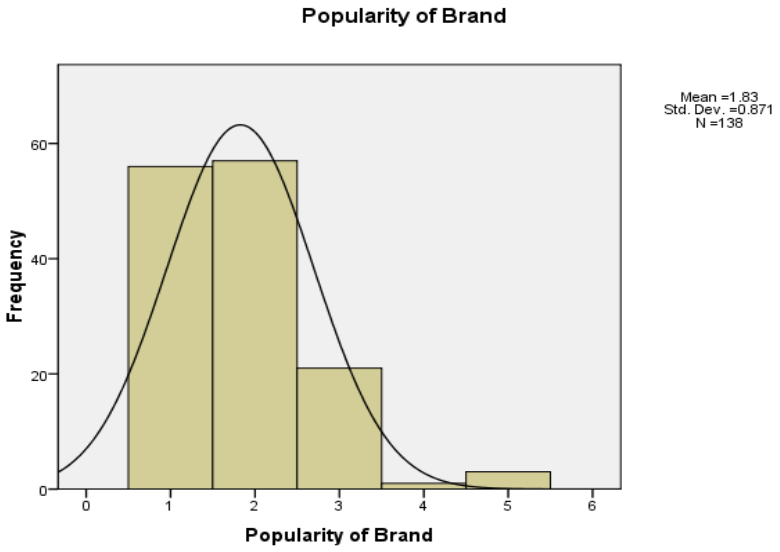


Table 18

Quality

	Frequenc	Percent	Valid	Cumulative

	y		Percent	Percent
Valid Very Important	47	34.1	34.1	34.1
Important	72	52.2	52.2	86.2
Neutral	14	10.1	10.1	96.4
Unimportant	2	1.4	1.4	97.8
Very Unimportant	3	2.2	2.2	100.0
Total	138	100.0	100.0	

Graph 18

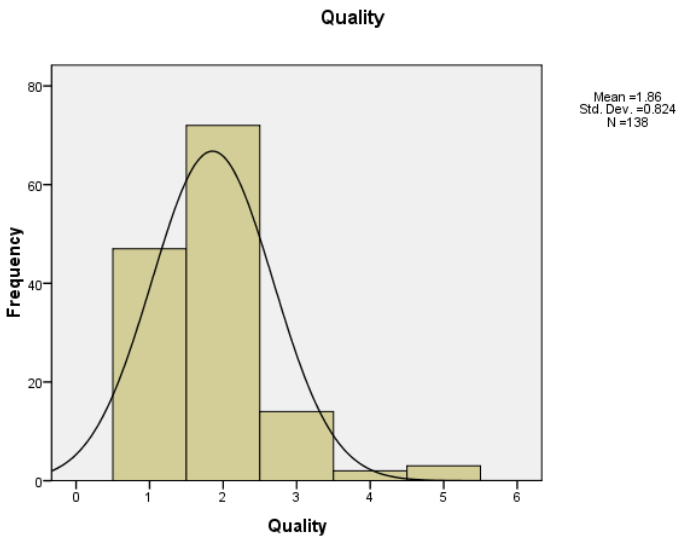


Table 19

Distinctiveness in intimate circle (Peers)

	Frequenc	Percent	Valid	Cumulative

	y		Percent	Percent
Valid Very Important	50	36.2	36.2	36.2
Important	58	42.0	42.0	78.3
Neutral	26	18.8	18.8	97.1
Unimportant	3	2.2	2.2	99.3
Very Unimportant	1	.7	.7	100.0
Total	138	100.0	100.0	

Graph 19

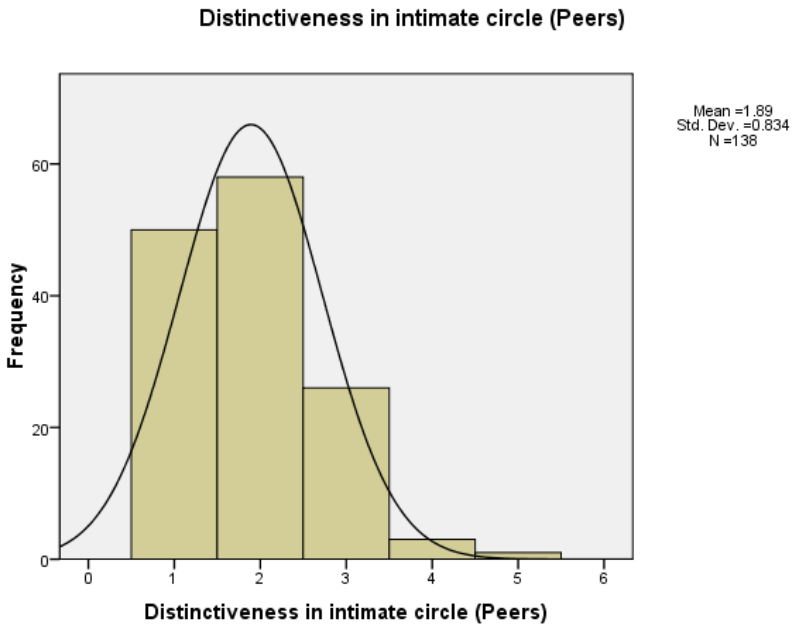


Table 20

Maintenance

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Important	53	38.4	38.4	38.4

Important	65	47.1	47.1	85.5
Neutral	15	10.9	10.9	96.4
Unimportant	2	1.4	1.4	97.8
Very Unimportant	3	2.2	2.2	100.0
Total	138	100.0	100.0	

Graph 20

Table 21

Resale Value

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Very Important	58	42.0	42.0	42.0
	Important	46	33.3	33.3	75.4
	Neutral	27	19.6	19.6	94.9
	Unimportant	5	3.6	3.6	98.6
	Very Unimportant	2	1.4	1.4	100.0
	Total	138	100.0	100.0	

Graph 21

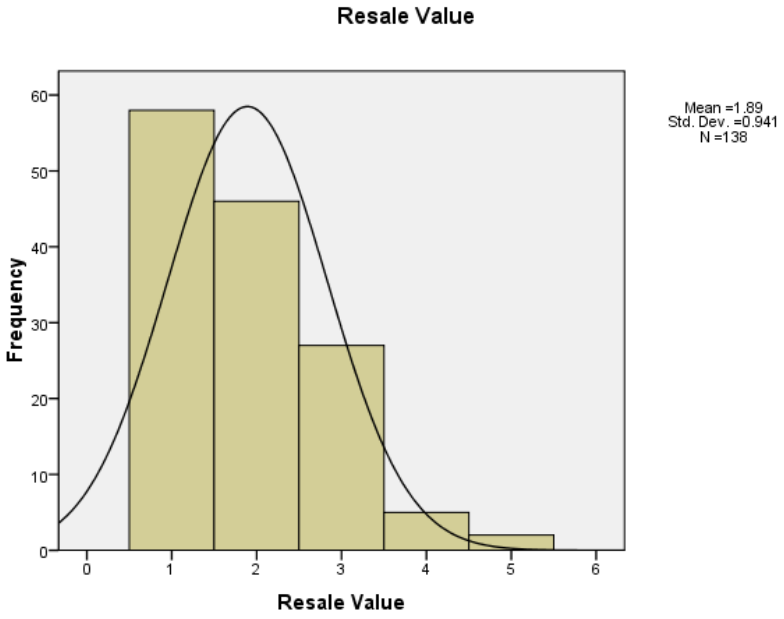


Table 22

Spare Availability

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	59	42.8	42.8	42.8
	Important	61	44.2	44.2	87.0

Neutral	12	8.7	8.7	95.7
Unimportant	2	1.4	1.4	97.1
Very Unimportant	4	2.9	2.9	100.0
Total	138	100.0	100.0	

Graph 22

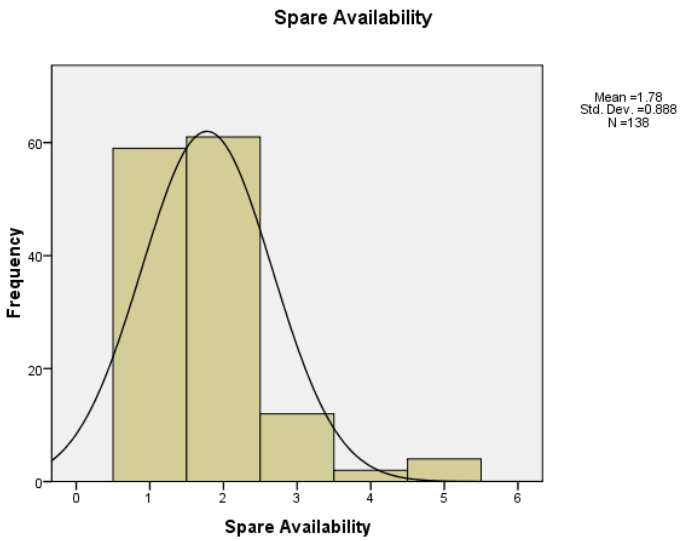


Table 23

Front Design (Grill & Bumper)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Important	69	50.0	50.0	50.0
Important	54	39.1	39.1	89.1
Neutral	12	8.7	8.7	97.8

	Unimportant	2	1.4	1.4	99.3
	Very Unimportant	1	.7	.7	100.0
	Total	138	100.0	100.0	

Graph 23

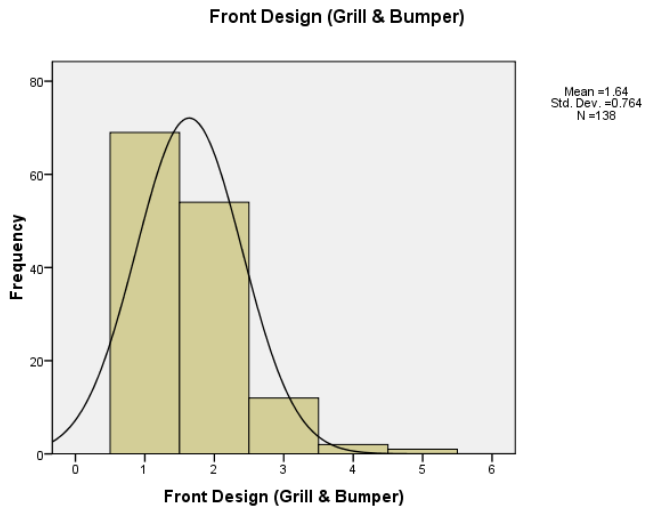


Table 24

Aerodynamics curves

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	51	37.0	37.0	37.0
	Important	63	45.7	45.7	82.6

Neutral	20	14.5	14.5	97.1
Unimportant	1	.7	.7	97.8
Very Unimportant	3	2.2	2.2	100.0
Total	138	100.0	100.0	

Graph 24

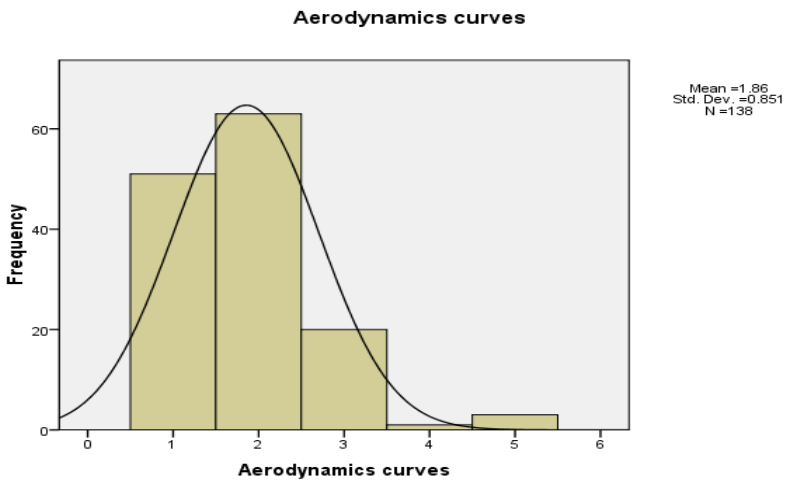


Table 25

Light Design (Head & Tails)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	44	31.9	31.9	31.9
	Important	75	54.3	54.3	86.2

Neutral	14	10.1	10.1	96.4
Unimportant	3	2.2	2.2	98.6
Very Unimportant	2	1.4	1.4	100.0
Total	138	100.0	100.0	

Graph 25

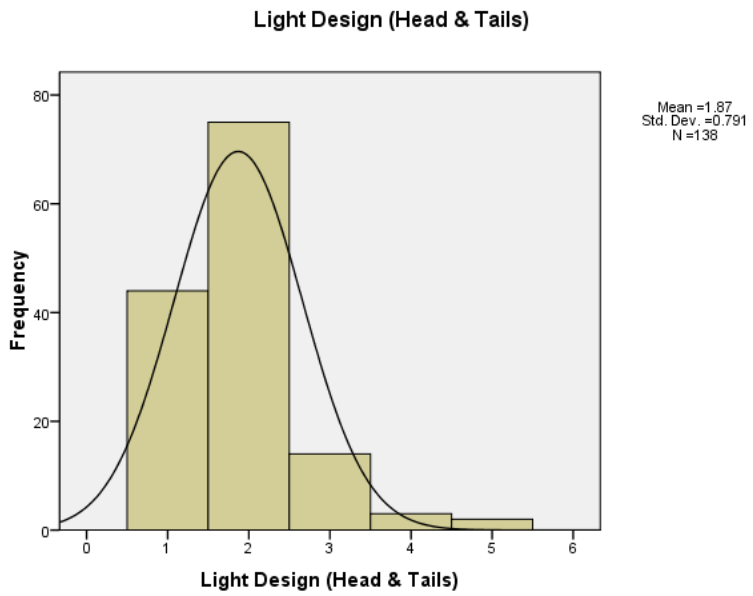


Table 26

Dashboard Design

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	45	32.6	32.6	32.6
	Important	69	50.0	50.0	82.6
	Neutral	19	13.8	13.8	96.4
	Unimportant	2	1.4	1.4	97.8

	Very Unimportant	3	2.2	2.2	100.0
	Total	138	100.0	100.0	

Graph 26

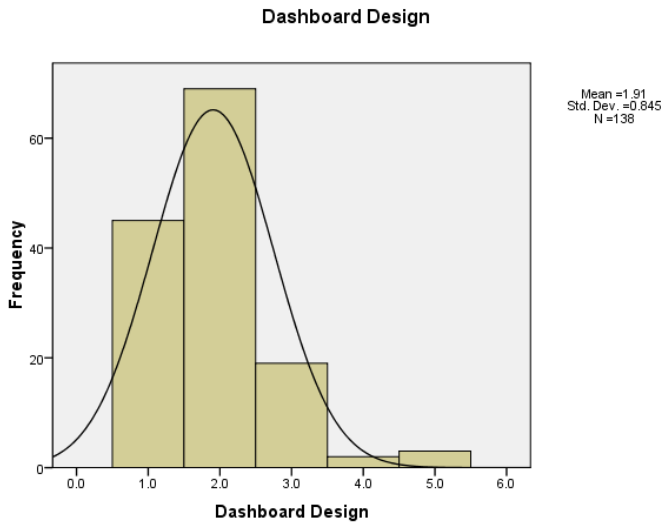


Table 27

Infotainment System Design

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	62	44.9	44.9	44.9
	Important	50	36.2	36.2	81.2
	Neutral	19	13.8	13.8	94.9
	Unimportant	5	3.6	3.6	98.6

Very Unimportant	2	1.4	1.4	100.0
Total	138	100.0	100.0	

Graph 27

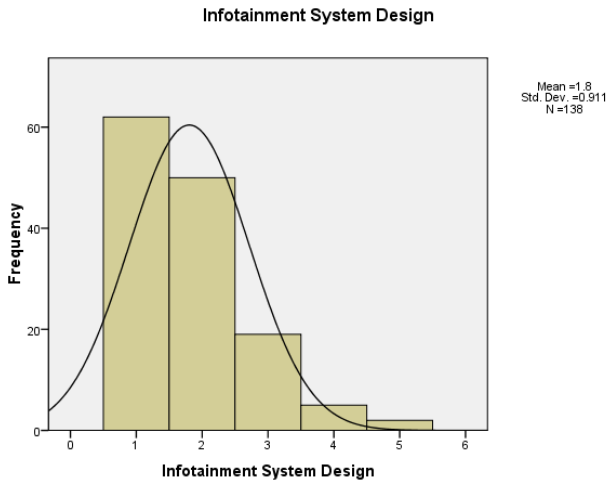


Table 28

Console Design

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	46	33.3	33.3	33.3
	Important	60	43.5	43.5	76.8
	Neutral	28	20.3	20.3	97.1
	Unimportant	2	1.4	1.4	98.6
	Very	2	1.4	1.4	100.0

	Unimportant			
	Total	138	100.0	100.0

Graph 28

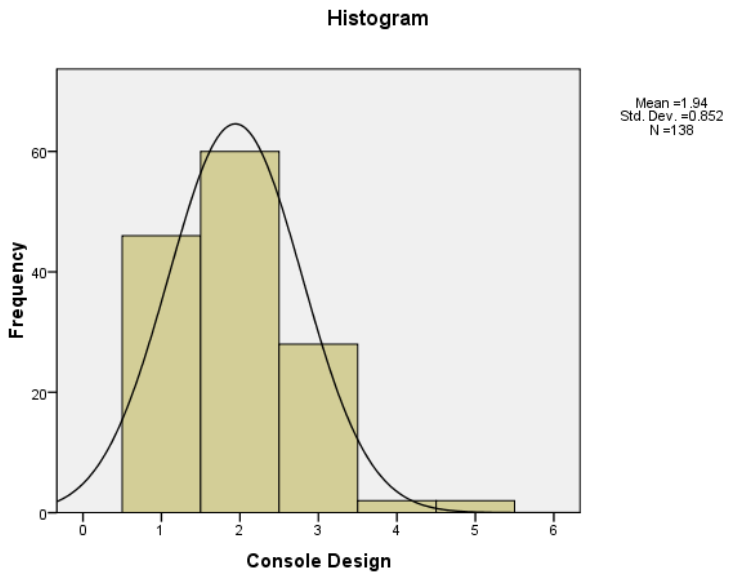


Table 29

Door Panel Features

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	52	37.7	37.7	37.7
	Important	58	42.0	42.0	79.7
	Neutral	21	15.2	15.2	94.9
	Unimportant	5	3.6	3.6	98.6

Very Unimportant	2	1.4	1.4	100.0
Total	138	100.0	100.0	

Graph 29

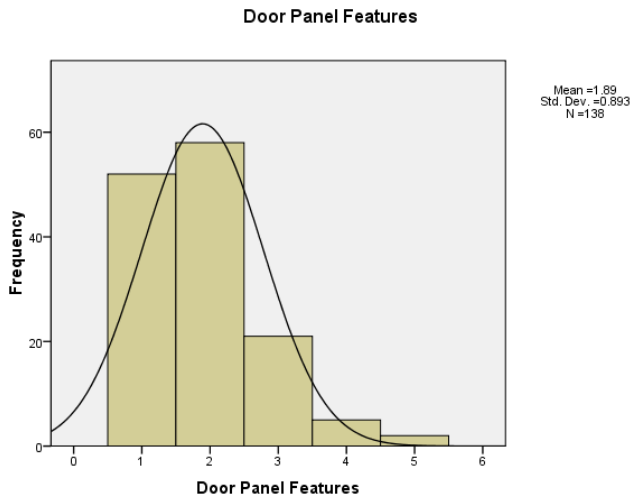


Table 30

Sound System

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	45	32.6	32.6	32.6
	Important	69	50.0	50.0	82.6
	Neutral	19	13.8	13.8	96.4
	Unimportant	2	1.4	1.4	97.8
	Very	3	2.2	2.2	100.0

	Unimportant			
	Total	138	100.0	100.0

Graph 30

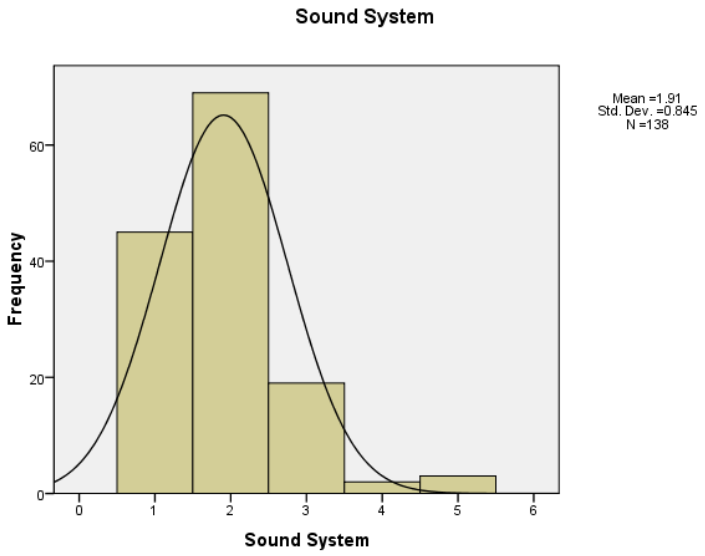


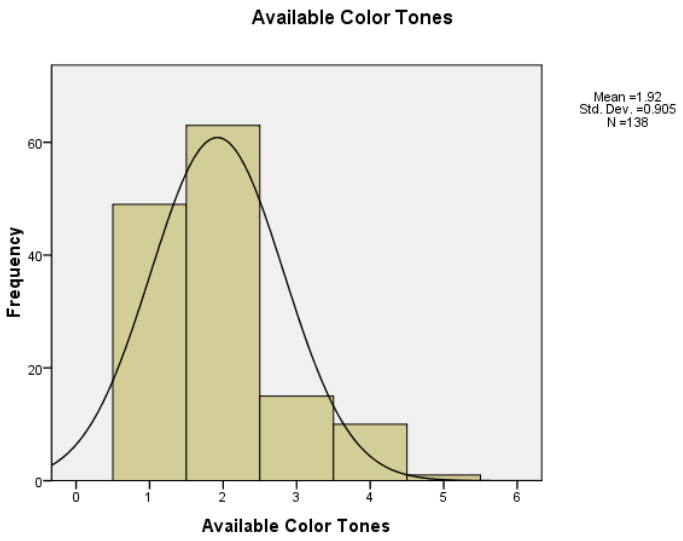
Table 31

Available Color Tones

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	49	35.5	35.5	35.5
	Important	63	45.7	45.7	81.2
	Neutral	15	10.9	10.9	92.0
	Unimportant	10	7.2	7.2	99.3
	Very	1	.7	.7	100.0

	Unimportant				
	Total	138	100.0	100.0	

Graph 31



T-Test

Group Statistics

	Gender of respondents	N	Mean	Std. Deviation	Std. Error Mean
Avg	Male	72	1.7312	.43552	.05133
	Female	66	1.8827	.41829	.05149

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Avg	Equal variances assumed	.010	.920	-2.080	136	.039	-.15152	.07283	-.29554	-.00749
	Equal variances not assumed			-2.084	135.696	.039	-.15152	.07270	-.29529	-.00774

T-Test

Group Statistics

	Occupation of ...	N	Mean	Std. Deviation	Std. Error Mean
Avg	Business	64	1.7893	.49941	.06243
	Service	74	1.8160	.36814	.04280

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Avg	Equal variances assumed	1.862	.175	-.361	136	.719	-.02673	.07407	-.17320	.11975
	Equal variances not assumed			-.353	114.336	.725	-.02673	.07569	-.17666	.12320

Oneway Annova

Descriptives

Avg

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
21-30	95	1.7076	.33214	.03408	1.6400	1.7753	1.00	2.90
31-40	20	1.8516	.48409	.10824	1.6251	2.0782	1.35	3.55
41-50	8	2.0323	.54006	.19094	1.5808	2.4838	1.58	3.32
51-60	6	2.2043	.83763	.34196	1.3253	3.0833	1.52	3.84
61 & above	9	2.2401	.39380	.13127	1.9374	2.5428	1.68	2.68
Total	138	1.8036	.43253	.03682	1.7308	1.8765	1.00	3.84

ANOVA

Avg

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.018	4	1.004	6.181	.000
Within Groups	21.613	133	.163		
Total	25.631	137			

Post Hoc Test

Multiple Comparisons

Avg
Tukey HSD

(I) Age of respondents	(J) Age of respondents	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
21-30	31-40	-.14397	.09918	.596	-.4182	.1303
	41-50	-.32462	.14840	.191	-.7350	.0858
	51-60	-.49666*	.16969	.032	-.9659	-.0274
	61 & above	-.53250*	.14059	.002	-.9213	-.1437
31-40	21-30	.14397	.09918	.596	-.1303	.4182
	41-50	-.18065	.16864	.821	-.6470	.2857
	51-60	-.35269	.18764	.333	-.8716	.1662
	61 & above	-.38853	.16181	.121	-.8360	.0590
41-50	21-30	.32462	.14840	.191	-.0858	.7350
	31-40	.18065	.16864	.821	-.2857	.6470
	51-60	-.17204	.21771	.933	-.7741	.4300
	61 & above	-.20789	.19588	.826	-.7496	.3338
51-60	21-30	.49666*	.16969	.032	.0274	.9659
	31-40	.35269	.18764	.333	-.1662	.8716
	41-50	.17204	.21771	.933	-.4300	.7741
	61 & above	-.03584	.21246	1.000	-.6234	.5517
61 & above	21-30	.53250*	.14059	.002	.1437	.9213
	31-40	.38853	.16181	.121	-.0590	.8360
	41-50	.20789	.19588	.826	-.3338	.7496
	51-60	.03584	.21246	1.000	-.5517	.6234

*. The mean difference is significant at the 0.05 level.

Homogeneous

Avg

Tukey HSD

Age of respondents	N	Subset for alpha = 0.05	
		1	2
21-30	95	1.7076	
31-40	20	1.8516	1.8516
41-50	8	2.0323	2.0323
51-60	6		2.2043
61 & above	9		2.2401
Sig.		.338	.172

Means for groups in homogeneous subsets are displayed.

Factor Analysis

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.831
Bartlett's Test of Sphericity	Approx. Chi-Square	1.688E3
	df	378
	Sig.	.000

Communalities

	Initial	Extraction
User Control	1.000	.755
Space (Leg room & Head space)	1.000	.454
Reverse Park Assist	1.000	.740
Seat Controls	1.000	.725
Infotainment System	1.000	.720
Added Features	1.000	.733
Safety	1.000	.631
Mileage	1.000	.660
Speed, Power & Acceleration	1.000	.721
Boot Space	1.000	.695
Fuel Type	1.000	.732
Service Experience	1.000	.717
Air Conditioning	1.000	.660
Popularity of Brand	1.000	.627
Quality	1.000	.630
Distinctiveness in intimate circle (Peers)	1.000	.744
Maintenance	1.000	.701
Resale Value	1.000	.627
Spare Availability	1.000	.644
Front Design (Grill & Bumper)	1.000	.702
Aerodynamics curves	1.000	.605
Light Design (Head & Tails)	1.000	.760
Dashboard Design	1.000	.681
Infotainment System Design	1.000	.644
Console Design	1.000	.621
Door Panel Features	1.000	.705
Sound System	1.000	.709
Available Color Tones	1.000	.628

Extraction Method: Principal Component Analysis.

Since the extraction of all the parameters is more that 0.4, then we will not ignore it. But if in some case it is less than 0.4 than we would have ignored it.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.034	28.693	28.693	8.034	28.693	28.693	3.618	12.923	12.923
2	2.622	9.365	38.058	2.622	9.365	38.058	3.144	11.228	24.151
3	2.033	7.261	45.319	2.033	7.261	45.319	2.496	8.914	33.066
4	1.581	5.646	50.965	1.581	5.646	50.965	2.197	7.847	40.913
5	1.402	5.006	55.971	1.402	5.006	55.971	2.075	7.410	48.322
6	1.231	4.397	60.368	1.231	4.397	60.368	2.068	7.386	55.708
7	1.038	3.708	64.076	1.038	3.708	64.076	1.934	6.908	62.617
8	1.029	3.673	67.750	1.029	3.673	67.750	1.437	5.133	67.750
9	.962	3.435	71.185						
10	.841	3.004	74.189						
11	.767	2.741	76.930						
12	.607	2.169	79.099						
13	.605	2.159	81.258						
14	.580	2.072	83.330						
15	.511	1.825	85.155						
16	.473	1.690	86.844						
17	.446	1.594	88.438						
18	.404	1.444	89.882						
19	.395	1.412	91.295						
20	.370	1.320	92.615						
21	.356	1.272	93.887						
22	.335	1.196	95.083						
23	.283	1.010	96.093						
24	.274	.978	97.071						
25	.246	.880	97.951						
26	.215	.770	98.721						
27	.183	.653	99.374						
28	.175	.626	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component							
	1	2	3	4	5	6	7	8
Boot Space	.756	.038	.230	.158	.135	.044	-.088	.127
Service Experience	.752	.120	-.043	.213	.277	.062	-.091	.003
Fuel Type	.745	.146	-.046	.171	-.065	.044	.332	.091
Speed, Power & Acceleration	.671	-.009	.241	-.043	-.079	.141	.426	.054
Mileage	.661	-.159	.303	.094	.192	-.049	.202	.128
Air Conditioning	.617	.366	-.103	.176	.067	.158	.196	-.189
Light Design (Head & Tails)	-.051	.779	.056	.253	.055	.096	.148	.220
Infotainment System Design	.072	.733	.185	.224	-.059	.072	.011	.092
Available Color Tones	.377	.582	.286	-.113	.063	.159	.155	-.027
Aerodynamics curves	.109	.581	.347	.040	.178	.217	.168	-.163
Sound System	.054	.088	.811	.132	.100	.029	.040	.103
Door Panel Features	.259	.311	.688	-.002	.139	.137	.033	.170
Console Design	.216	.473	.568	.156	.007	.004	.046	-.015
Dashboard Design	-.078	.470	.560	.234	.069	.127	.238	-.091
Maintenance	.289	.123	.139	.741	-.013	.116	.090	.111
Quality	.067	.210	.021	.717	-.028	.255	.021	-.027
Spare Availability	.267	.149	.247	.610	.235	.200	.032	-.144
Seat Controls	.066	.013	-.008	.058	.816	.084	.170	.124
Added Features	.176	.057	.189	-.015	.793	.161	.063	-.069
Space (Leg room & Head space)	.090	.102	.146	.022	.440	-.416	.153	.155
Distinctiveness in intimate circle (Peers)	.134	.165	.106	.125	.159	.789	.063	.143
Resale Value	.070	.071	.204	.231	.015	.690	.129	-.171
Popularity of Brand	.080	.221	-.034	.185	.098	.671	-.078	.267
Reverse Park Assist	.197	.093	.007	-.034	.343	-.001	.728	.209
Infotainment System	.233	.319	.230	.116	.351	.058	.606	.055
Safety	.157	.158	.080	.486	-.019	-.001	.578	.061
User Control	.150	.005	.115	-.086	.044	.067	.289	.788
Front Design (Grill & Bumper)	.022	.515	.092	.172	.170	.101	-.066	.595

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 14 iterations.

RESULT

The study explored 8 factors influencing the purchase of sedan cars in Indore region. These factors are named as **Facilities**, **Design, Internal Factor, Spare Availability and Seat Controls**, **Added Features and Resale, Popularity of Brand, Other components and Front Design.** These factors are covering 67.75% of variance and the eigen value of each factor in more than 1. These factors are explained below in quantitative ways in terms of their item load, eigen value, and % of variance.

The first factor entitled "**qwerty**" consists of six items. Boot Space (item load - 0.756), Service Experience (item load - 0.752), Fuel Type (item load – 0.745), Speed, Power & Acceleration (item load – 0.671), Mileage (item load – 0.661) and Air Conditioning (item load – 0.617). Total Load of the Factor is 4.202 with 12.923% of variance.

FACTOR 1: FACILITIES

S. No.	Statement	Item Load	Factor Load	% of Variance
1.	Boot Space	.756		

2.	Service Experience	.752	4.202	12.923
3.	Fuel Type	.745		
4.	Speed, Power & Acceleration	.671		
5.	Mileage	.661		
6.	Air Conditioning	.617		

The second factor entitled "**Design**" consists of five items.
Light Design (Head & Tails) (item load – 0.779), Infotainment System Design (item load – 0.733), Available Color Tones (item load – 0.582), Aerodynamics curves (item load – 0.581) and Sound System (item load – 0.088). Total Load of the Factor is 2.675 with 11.228% of variance

FACTOR 2: DESIGN

S. No.	Statement	Item Load	Factor Load	% of Variance
7.	Light Design (Head & Tails)	.779	2.675	11.228
8.	Infotainment System Design	.733		
9.	Available Color Tones	.582		
10.	Aerodynamics curves	.581		
11.	Sound System	.088		

The third factor entitled "**Internal Factors**" consists of five items.
Door Panel Features (item load – 0.688), Console Design (item load – 0.568), Dashboard Design (item load – 0.560), Maintenance (item load – 0.139) and Quality (item load – 0.021). Total Load of the Factor is 1.976 with 8.914% of variance.

FACTOR 3: INTERNAL FACTORS

S. No.	Statement	Item Load	Factor Load	% of Variance
12.	Door Panel Features	.688	1.976	8.914
13.	Console Design	.568		
14.	Dashboard Design	.560		
15.	Maintenance	.139		
16.	Quality	.021		

The fourth factor entitled "**Spare Availability and Seat Controls**" consists of two items. Spare Availability (item load – 0.610) and Seat Controls (item load – 0.058). Total Load of the Factor is 0.668 with 7.847% of variance.

FACTOR 4: SPARE AVAILABILITY AND SEAT CONTROLS

S. No.	Statement	Item Load	Factor Load	% of Variance
17.	Spare Availability	.610	0.668	7.847
18.	Seat Controls	.058		

The fifth factor entitled "**Added Features and Resale Value**" consists of four items. Added Features (item load – 0.793), Space (Leg room & Head space) (item load – 0.440), Distinctiveness in intimate circle (Peers) (item load – 0.159), Resale Value (item load – 0.015). Total Load of the Factor is 1.407 with 7.410% of variance.

FACTOR 5: ADDED FEATURES AND RESALE VALUE

S. No.	Statement	Item Load	Factor Load	% of Variance
19.	Added Features	.793	1.407	7.410
20.	Space (Leg room & Head space)	.440		
21.	Distinctiveness in intimate circle (Peers)	.159		
22.	Resale Value	.015		

The sixth factor entitled "**Popularity of Brand**" consists of one item. Popularity of Brand (item load – 0.671). Total Load of the Factor is 0.671 with 0.671% of variance.

FACTOR 6: Popularity of Brand

S. No.	Statement	Item Load	Factor Load	% of Variance
23.	Popularity of Brand	.671	.671	7.386

The seventh factor entitled "**OTHER COMPONENTS V**" consists of four items. Reverse Park Assist (item load – 0.728), Infotainment System (item load – 0.606), Safety (item load – 0.578), User Control (item load – 0.578). Total Load of the Factor is 2.201 with 6.908% of variance.

FACTOR 7: OTHER COMPONENTS

S. No.	Statement	Item Load	Factor Load	% of Variance
24.	Reverse Park Assist	.728	2.201	6.908
25.	Infotainment System	.606		
26.	Safety	.578		
27.	User Control	.289		

The eighth factor entitled "**FRONT DESIGN**" consists of one item. Front Design (Grill & Bumper) (item load – 0.595). Total Load of the Factor is 0.595 with 0.595% of variance.

FACTOR 8: FRONT DESIGN

S. No.	Statement	Item Load	Factor Load	% of Variance
	Front Design (Grill & Bumper)	.595	.595	5.133

The purchaser or the buyer should keep in mind the first factor i.e. Facilities before purchasing a sedan car. Boot Space, Service Experience, Fuel Type, Speed, Power & Acceleration, Mileage, and Air Conditioning are the first and foremost parameters to be kept in mind.

The next important factor is the Design factor. Light Design (Head & Tails), Infotainment System Design, Available Color Tones, Aerodynamics curves and Sound System are the parameters that should also kept in mind before purchasing because the design and look of the car matters to the buyer.

Another factor i.e. the other components includes Reverse Park Assist, Infotainment System, Safety and User Control, next factor i.e. internal factors which includes Door Panel Features, Console Design, Dashboard Design, Maintenance and Quality must be given third priority for the purchase decision.

Also, the rest of the factors like Added features and resale value, spare availability and seat controls, popularity of brand and front design should be given less importance as compared to the above factors.

LIMITATION

The research study measured the parameters influencing the purchase of sedan cars in Indore, limited to some of the car owners in India, so there is scope to expand the study to all the cities in India.

SUGGESTIONS

- The above parameters should be taken into consideration while purchasing sedan cars in Indore region.
- Car manufacturers need to track these parameters and align their product strategies accordingly.
- Also, the internal factors like door panel design, console design and dashboard design should made in a very innovative way as the respondents feel that these internal factors are equally important.
- It has been seen that Facilities provided by a sedan car like fuel type, speed, power and acceleration are very important parameter while purchasing sedan car in Indore.
- Comfort level provided by sedan car is also seen as an essential parameter while purchasing sedan car in Indore.
- Also, the Respondents feel that the reverse park assist is another important factor as the purchaser feels that it is important so the manufacturers should also give it more importance.
- Also, all the models should be available in both the variants of fuel i.e. petrol and diesel.
- The respondents didn't give enough importance to the seat controls so, the manufacturers should pay attention little attention to it and more attention to other parameters.

CONCLUSION

The above study revealed that the facilities factor plays an important role in buying decision of sedan cars in Indore. The respondents have been found to have significant source of information and influencers in purchasing the sedan car. Also, the fuel type, mileage, boot space, service experience, air conditioning and speed, power & acceleration in the sedan cars are found to be

the foremost reasons for the preference of the sedan cars. Sedan car manufacturers should improve their product in terms of the above parameters plus the other components, design factor, internal factors as well to attract more customers in Indore region.

S. No.	Factor	Table	Graph
1.	Age of respondents	1.	1.
2.	Gender of respondents	2.	2.
3.	Occupation of respondents	3.	3.
4.	User Control	4.	4.
5.	Space (Leg room & Head space	5.	5.
6.	Reverse Park Assist	6.	6.
7.	Seat Controls	7.	7.
8.	Infotainment System	8.	8.
9.	Added Features	9.	9.
10.	Safety	10.	10.

11.	Mileage	11.	11.
12.	Speed, Power & Acceleration	12.	12.
13.	Boot Space	13.	13.
14.	Fuel Type	14.	14.
15.	Service Experience	15.	15.
16.	Air Conditioning	16.	16.
17.	Popularity of Brand	17.	17.
18.	Quality	18.	18.
19.	Distinctiveness in intimate circle (Peers)	19.	19.
20.	Maintenance	20.	20.
21.	Resale Value	21.	21.
22.	Spare Availability	22.	22.
23.	Front Design (Grill & Bumper)	23.	23.
24.	Aerodynamics curves	24.	24.
25.	Light Design (Head & Tails)	25.	25.
26.	Dashboard Design	26.	26.
27.	Infotainment System Design	27.	27.
28.	Console Design	28.	28.
29.	Door Panel Features	29.	29.
30.	Sound System	30.	30.
31.	Available Color Tones	31.	31.

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