

The Impact of Demographics Factors on Level Consumer Satisfaction towards Purchase of Certified Pre-Owned Cars in Bengaluru City

“One Man’s Trash Can Be another Man’s Treasure”

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Abstract— This paper attempts to explore the effect of demographic factors on the level of consumer satisfaction towards certified pre-owned cars in Bengaluru city. The purpose of this study is to investigate the difference in the level of consumer satisfaction towards certified pre-owned cars, due to various demographic factors (gender, age, marital status, educational qualification, employment status, annual income, type of family, size of the family and number of children). To attain this objective a study was carried out among buyers of certified pre-owned cars. Research approach used is quantitative in nature. Hypotheses were developed to analyze the differences in consumers’ buying behaviour on the basis of various demographic characteristics. Questionnaires were administered to 100 pre-owned car owners, who constituted the sample. These were buyers who bought the certified pre-owned car from certified sellers in different parts of Bengaluru, India. Different statistical tools like one way ANOVA, independent sample t-test and simple descriptive techniques were used to derive results from the data collected with the help of SPSS 20.0. The results revealed that gender was the only variable which had a significant effect on level of satisfaction towards certified pre-owned cars.

Index Terms— pre-owned cars, consumer buying behavior, income, gender, age, demographics etc.

I. INTRODUCTION

Peter Drucker called the automobile industry as "the industry of industries". The automotive industry is an integral constituent of the global economy and is unique in that, it covers every aspect of the value chain—early from raw materials to design and development, manufacturing, sales and service, and even disposal. All of these value-creating areas are undergoing significant innovative changes as a result of environmental and competitive forces.

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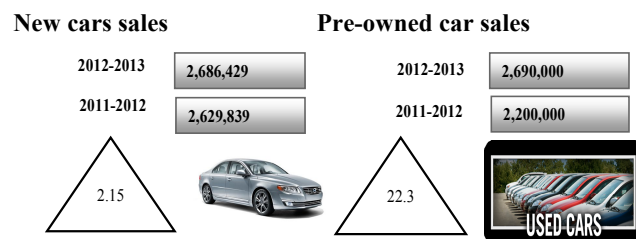
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India is expected to become a major Automobile Manufacturing hub and the third largest market for automobiles by 2020, according to a report published by Deloitte.

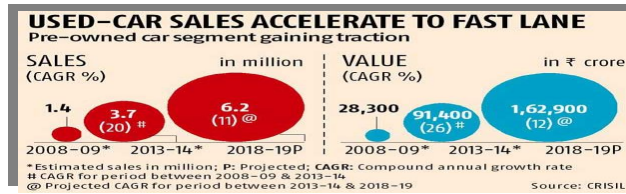
There cannot be a second opinion on the fact that the automobiles have become the indispensable part of our life. Today world over the augmentation of the automobile is just beyond imagination these years. It is barely an indicator of the country economy, but an individual’s development chart can be measured on the grounds of the automotive vehicles used by him for day to day work and also for delight, status and fashion as well. The vehicle industry in India is one of the largest in the world and one of the fastest growing globally. It is also considered as a most profitable industry worldwide. According to the reports of Society of Indian Automobile Manufacturers [SIAM], annual car sales are anticipated to attain more than 9 million by 2020. To trust New York Times reports, a number of automobile corporations like Nissan, Hyundai Motors, Toyota, Suzuki and Volkswagen have expanded their manufacturing amenities due to India's strong engineering base and expertise in the manufacturing of cost-effective, in terms of fuel-efficient cars.

Used car sales during 2011-12 and 2012 and 2013



Source: Hindustan Times dated Aug 1, 2013

Last year, for the first time, Indians bought many new cars as pre-owned ones. During 2012-2013, Indians bought 2.69 million used cars, an increase 22.3 over previous year. Compared this 2.68 million new cars were sold, a meager 2.2 more than the previous year. That provide a warranty. While new car sales continue to stagnate, the above sales graph for used vehicles is moving upwards.



Second-hand cars are also being sold like hotcakes. Pre-owned car segment has emerged as one of the major industries not only India but as well as globally. A recent analysis illustrates, the annual pre-owned car demand in the Indian market is around 10, 50,000 cars. To gain from the affluent trend, leading certified manufacturers pre-owned cars like Automartindia Ltd and Maruti True Value, Hyundai H Promise, Mahindra First Choice Wheels, Tata Motors Assured, BMW Premium Selection, Chevrolet Certified, as Welt Auto, Honda Auto Terrace, Ford Assured and Toyota U Trust, have made a foray into the pre-owned car business. Unlike other non-certified corporation, every provider assurance of guarantee, accurate ownership and accident certification to their customers and sellers along with better quality and advantages like warranty period and free repair services. The new brands which are introduced in the market over the years it will be sold in seconds, this trend is more emerging due to the availability of new brands, In recent past few years around 75 latest pre-owned cars models variants have been launched in India to cater to the needs of the pre-owned cars buyers. Many car owners want to change their current car with the newer brands. Thus pre-owned market has been creating large income.

II. LITERATURE REVIEW

The review focuses on the research conducted over the years on the demographic factors influencing the purchase satisfaction of certified pre-owned cars. The available literature highlights that though some studies have analyzed the satisfaction regarding certified pre-owned cars. In developing countries, there is a lack of research regarding analyzing the impact of demographic factors on purchase of certified Pre-Owned cars. The present study is an effort to fill this gap.

Most of the studies are in the form of research papers, reports, and published articles in newspapers. But most of these publications have been carried out in the foreign countries, as pre-owned car concept is still in the nascent stage in India.

Consumers do not make a decision in isolation. Their purchases are highly influenced by demographic such as gender, age, marital status, education, employment status, annual income, type of family, size of the family, and number of children, purchase of buying certified pre-owned car. For most of these are uncontrollable factors, which are beyond the reach of the organizations, the present study tried to examine demographic factors influencing on purchase of certified pre-owned cars.

Midgley (1983) went one step further and refined the “search style segments” by clustering individuals who utilized sources of information differently in the search process. Four dimensions explained patterns of the search for men’s suits; life cycle (age, attitude to change and risk, gregariousness, income and marital status) status involvement

(gregariousness, income, social class and purchase frequency) pro fashion attitudes (attitudes to change and risk, marital status) and store loyalty.

Solomon (2002) he opined that traditional demographic variables like income, education or gender cannot identify the complete characteristics of different markets because consumers in the same demographic group have very different psychographic make-ups.

Rusert & Wiseman (2003) have listed various advantages that the Manufacturer certified Pre-owned vehicle programs offer to the manufacturers and to the buyers. Some of these are that the Manufacturer Certified Pre-owned Programs are designed to give buyers the chance to purchase a pre-owned car with complete confidence by offering some or all of the benefits like comprehensive vehicle inspection, extended warranties, strict qualification guidelines, roadside assistance etc.

Gill, A.S., and Sudhir K. Jain, (2005) opined that the ever increasing market offerings and inducing purchase interest in brands motivate the consumers to upgrade. Consumers purchase a car depends on their disposable income. Important aspects that affect the purchase of second-hand vehicles are non-availability of established channels, which offers full service to consumers for buying, servicing and reconditioning.

Raja and Suresh (2006) revealed that consumer satisfaction was a growing concern of businesses throughout the world. The research tried to rank the small cars on these factors, sales support, vehicle design, purchase support, the cost of ownership and delight features as underlying factors of customer satisfaction. The study also tried to find out whether satisfaction varies among customers on the basis of demographics.

Ernest Johnson and Silas Sargunam (2011) in this study, an attempt has been made to understand the attitude of car buyers towards the import of used cars by using information system. Both descriptive and inferential statistics were used. Means and frequencies were used to describe the study data. For the interest in buying an imported used car. The result reveals that one-third of the respondents show interest in the imported used cars. Also, it is found that the demographic factors such as age, monthly household income and the number of earning members in the family have a significant impact on the positive attitude towards the imported used cars.

J.D. Power and Associates, National Automobile Dealers Association (NADA): Used Car Guide August (2016): The survey report reveals that when it comes to certified pre-owned programs, consumers and dealers alike are reaping significant benefits of buying and selling used vehicles through this purchase funnel compared to the standard used sales. For consumers, the peace of mind knowing that only vehicles in the best condition qualify along with a rigorous multi-point inspection and reconditioning process, extended warranty protection, roadside assistance, as well as low-interest financing can make certified pre-owned car

(CPO) units more appealing than their non-certified versions. For dealers, certified pre-owned car (CPO) vehicles are more easily marketed as relatively low-risk units. This product characteristic allows for higher prices than non-certified versions. The influx of used vehicle supply presents franchise dealers the opportunity to take greater advantage of revenue streams associated with CPO sales. As the results from the survey conducted by National Automobile Dealers Association (NADA) guide indicate, maximum success can only be achieved if automakers and dealers improve consumer awareness on the benefits of Certified Pre-Owned vehicle ownership.

III. RESEARCH HYPOTHESES

In this study, demographic analysis is done to test if there is any difference in level consumer satisfaction towards certified pre-owned car purchase in relation to gender, age, marital status, educational qualification, employment status, annual income, type of family, the size of the family and number of children. The following hypotheses have been developed which will enable us to analyse the difference in the level of consumer satisfaction towards purchase of certified pre-owned car on the basis of demographic characteristics.

H₁: Level of satisfaction differs significantly between male and female consumers towards purchase of certified pre-owned car.

H₂: Level of satisfaction varies significantly among the customers of different age group towards purchase of certified pre-owned car.

H₃: Level of satisfaction differs significantly between married and unmarried consumers of certified pre-owned car owners.

H₄: Level of satisfaction varies significantly among consumers of different educational qualification.

H₅: Level of satisfaction varies significantly among consumers of different employment status towards purchase of certified pre-owned car.

H₆: Level of satisfaction varies significantly among the consumers with different annual income towards certified pre-owned car owners.

H₇: Level of satisfaction differs significantly between nuclear and joint families towards certified pre-owned car purchase.

H₈: Level of satisfaction varies significantly among consumer with different family size towards purchase of certified pre-owned car.

H₉: Level of satisfaction varies significantly among the consumers having different number of children.

IV. RESEARCH METHODOLOGY

4.1. Research approach and sample design:

The study was intended to focus on the impact of demographic factors on consumer satisfaction towards certified pre-owned car buyers. The research design used is descriptive in nature. The sample size of the research was 100. Customers who own certified pre-owned car were surveyed with the help of a structured questionnaire. Thus, sampling procedure is purposive sampling. The survey was conducted in various certified pre-owned car seller location, by identifying the certified pre-owned car buyers through

address provided by the sellers of Bengaluru city for fifteen days.

4.2. Instrument design:

The research objective was to understand the impact of demographic factors on consumer satisfaction towards certified pre-owned car purchase. The questionnaire used for the research comprised of questions on demographic variables— gender, age, marital status, educational qualification, employment status, annual income, type of family, the size of the family and number of children. The consumer satisfaction was measured using a five-point LIKERT scale, with one denoting very dissatisfied and five denoting very satisfied. Respondents were asked to tick the parameters that best described their response.

4.3. Data analysis methods:

Data collected were entered into an Excel file. The data file was imported from Excel to the Statistical Packages for Social Sciences' (SPSS) software for analysis. Statistical methods used in the data analysis in this study were descriptive statistics and frequency tests, one-way ANOVA, and independent sample t-test. The significance level chosen for this study was 0.05. First, descriptive statistics and frequency tables were generated both for demographic factors and level of satisfaction. One way ANOVA was used to test the differences in the level of satisfaction towards certified pre-owned car owners across various gender, age, marital status, educational qualification, employment status, annual income, type of family, size of the family and number of children. Independent sample t-test was conducted to check the difference in the level of satisfaction on the basis of gender and marital status.

V. ANALYSIS AND DISCUSSION

Demographic analysis is the statistical analysis of the size, composition and spatial distribution of human population. Demographic analysis helps in understanding the human profile of respondents of a survey and relating it to their responses to arrive at conclusive patterns and trends. These patterns and trends have practical applications in planning, designing and executing specific activities.

5.1. Descriptive statistics for demographics:

Descriptive statistics for the sample can be found in table-1, providing information regarding the respondents' demographic profile, such as gender, age, marital status, educational qualification, employment status, annual income, type of family, size of the family and number of children. Almost 82% of the respondents were male and the only 18% were female customers. The majority of the respondents were in the age group 21-30 years (45%), 31-40 years (31%), 41-50 years (11%), <20 years (7%) whereas only 6% were in the age group of 51 and above years. Majority of the respondents were married (61%) and 31% were unmarried. The largest proportion (44%) of the respondents were master degree, 28% of respondent holds Bachelor's degree, followed by doctors or professional degree (12%), PUC (9%), and 7% were with no formal education. The majority of respondents were Business people (35%) Private employees (24%), Government employees (18%), followed by Not employed currently (5%), Retired and Farmer (1%) respectively. Most of the respondents fall in the income group of Rs 3-to-5 Lakhs

(32%), Rs 1–to-3 Lakhs (30%), 7-to-9 Lakhs (13%), Rs 5-to-7 (9%), Rs 9-to11Lakhs (8%), followed by 6% and 2% of Rs 11-to-14 Lakhs and 14 & above respectively. Almost more than half of the respondent dwell in nuclear family (63%) and 37% were of joint family. The family size also matters in the level of satisfaction, the majority of the respondents family size belongs to 3 to 4 members (56%) 5 and above 33% and 1-2 member (11%). Most of the respondents have none (45%), one child (28%), Two children (23%) and (1%) of respondents have 3 and above children.

Size of the family	1-2 members	11	11.0
	3-4 members	56	56.0
	5 and above member	33	33.0
	Total	100	100.0
Number of Children	None	45	45.0
	One	28	28.0
	Two	23	23.0
	Three	3	3.0
	3 & above	1	1.0
	Total	100	100.0

Variables	Categories	Frequency	Percentage
Gender	Male	82	82.0
	Female	18	18.0
	Total	100	100.0
Age	<20 Years	7	7.0
	21-30 Years	45	45.0
	31-40 Years	31	31.0
	41-50 Years	11	11.0
	51 & Above years	6	6.0
	Total	100	100.0
Marital Status	Married	61	61.0
	Unmarried	39	39.0
	Total	100	100.0
Education	No formal education	7	7.0
	PUC	9	9.0
	Bachelor’s degree	28	28.0
	Master degree	44	44.0
	Doctors or Professional degree	12	12.0
	Total	100	100.0
	Employment Status	Business	35
Govt Employee		18	18.0
Private Employee		24	24.0
Retired		1	1.0
Not employed currently		5	5.0
Student		16	16.0
Farmer		1	1.0
Total		100	100.0
Annual income	Rs 1-3 Lakh	30	30.0
	Rs 3-5 Lakh	32	32.0
	Rs 5-7 Lakh	9	9.0
	Rs 7-9 Lakh	13	13.0
	Rs 9-11 Lakh	8	8.0
	Rs 11-14 Lakh	6	6.0
	Rs 14 Lakh & above	2	2.0
	Total	100	100.0
Type of family	Nuclear	63	63.0
	Joint	37	37.0
	Total	50	100.0

Number	100
Mean	3.81
Std. Deviation	.761

	Frequency	Percent
Very Dissatisfied	1	1.0
Dissatisfied	8	8.0
Neither Satisfied nor Dissatisfied	10	10.0
Satisfied	71	71.0
Very Satisfied	10	10.0
Total	100	100.0

5.2. Descriptive Statistics for the level of satisfaction towards certified pre-owned car:

As a five-point Likert scale, which ranged from very dissatisfied=1 to very satisfied=5, was used to measure the level of satisfaction, a score of above 3 from respondents is considered as a sign of satisfaction. Therefore, the mean of 3.81 along with a standard deviation of 0.761 (table-2) may allow us to conclude that our sample is satisfied with the purchase of certified pre-owned car. From the above table no 3 it shows that 71% of the respondents are satisfied with certified pre-owned car purchase, 10% of the respondent were very satisfied and neither satisfied nor dissatisfied respectively, followed by 8% of the respondents were dissatisfied and 1% of the respondent was very dissatisfied.

5.3. Testing of hypotheses:

5.3.1. Analysis on level of consumer satisfaction towards certified pre-owned car based on gender:

Particulars	Gender	N	Mean	Std. Deviation
Level of consumer satisfaction towards purchase of Certified Pre-owned car	Male	82	3.89	.685
	Female	18	3.44	.984

Table-5: Independent sample t-test for gender-based analysis

As shown in table-4, comparing the means between the two genders obtained through the study, the male gender appears to have high level of satisfaction towards certified pre-owned car (mean=3.89) than the female gender (mean=3.44). An independent sample t-test is used to understand whether the level of satisfaction differed based on gender. The table-5 shows the results of the level of satisfaction towards certified pre-owned car according to the gender variable. The results indicate that there is a significant difference between the level of satisfaction with male and female consumers [t (df=98) = 2.298, p = 0.024] at the 5% level of significance. **Hence H₁ is accepted.**

5.3.2. Analysis of the level of consumer satisfaction towards certified pre-owned car based on age:

The table-3 above shows descriptive statistics for the level of satisfaction among consumers with various age groups. The age is measured in five groups: <20 years, 21-30 years, 31-40 years, 41-50 years and >51 and above years. As we can see in table 6, the data do not provide sufficient information to draw the conclusion that the level of satisfaction varies on the basis of age. The table- shows the result of one-way ANOVA to test the differences in the level of consumer satisfaction on the basis of age. The results (p > 0.05) indicate that age has no significant effect on the level of satisfaction at 5% level of significance. **Hence H₂ is rejected.**

Table-6: Descriptive statistics for age-based analysis

Particulars	Age group	N	Mean	Std. Deviation
Level of consumer satisfaction towards purchase of Certified Pre-owned car	< 20 Years	7	3.43	.787
	21 to 30 Years	45	3.82	.747
	31 to 40 Years	31	3.84	.898
	41 to 50 Years	11	3.73	.467
	> 51 Years & above	6	4.17	.408
	Total	100	3.81	.761

Table-7: ANOVA of age-based analysis

Level of consumer satisfaction towards purchase of Certified Pre-owned car		Sum of Squares	df	Mean Square	F	Sig.
	Between Groups	1.889	4	.472	.808	.523
	Within Groups	55.501	95	.584		
	Total	57.390	99			

5.3.3. Analysis of the level of consumer satisfaction towards certified pre-owned car based on marital status:

According to table-8, the mean score of married (mean=3.92) and unmarried (mean=3.64) consumer level of satisfaction. The table-9 presents the results of t test, which tests the difference between the opinion of married and unmarried consumers towards the level of satisfaction for certified pre-owned car. The results indicate that there is no significant difference between the level of satisfaction between married and unmarried consumers' towards certified pre-owned car at 5 % level of significance. **Hence H₃ is rejected.**

Table-8: Descriptive statistics for marital status based analysis

Particulars	t-test for Equality of Means		
	t	df	Sig.(2-tailed)
Level of consumer satisfaction towards purchase of Certified Pre-owned car	2.298	98	.024

Particulars	Gender	N	Mean	Std. Deviation
Level of consumer satisfaction towards purchase of Certified Pre-owned car	Married	61	3.92	.714
	unmarried	39	3.64	.811

Table-9: Independent sample t-test for marital status based analysis

Level of consumer satisfaction towards purchase of Certified Pre-owned car	t-test for Equality of Means		
	t	df	Sig.(2-tailed)
	1.794	98	0.76

5.3.4. Analysis of the level of consumer satisfaction towards certified pre-owned car based on qualification:

The variable of educational qualification is measured in five groups: No formal education, PUC, bachelors' degree and doctors or professional degree. As we can see in table 10, there is a difference in the mean scores of respondents with different educational qualification. Thus the data provide information to draw the conclusion that the consumer with PUC (mean 4.11) and Doctors (mean4.08) score is higher in the level of satisfaction towards certified pre-owned car. In addition to that, table-11 shows the result of one-way ANOVA to test the effect of educational qualification on level of satisfaction. The results indicate that education has no significant effect on the level of satisfaction at 5% level of significance. **Hence H₄ is rejected.**

Table-10: Descriptive statistics for educational qualification based analysis

Particulars	Qualification	N	Mean	Std. Deviation
Level of consumer satisfaction towards purchase of Certified Pre-owned car	No formal education	7	3.14	.900
	PUC	9	4.11	.333
	Bachelors Degree	28	3.89	.567
	Master Degree	44	3.73	.899
	Doctorate	12	4.08	.515
	Total	100	3.81	.761

Table-11: ANOVA of educational qualification based analysis.

Particulars	Sum of Squares	df	Mean Square	F	Sig.	
Level of consumer satisfaction	Between groups	5.321	4	1.330	2.427	.053
	Within groups	52.069	95	.548		
	Total	57.390	99			

5.3.5. Analysis of the level of satisfaction towards certified pre-owned car based on employment status:

Table-12 shows that level of satisfaction has a total mean score of 3.81 which indicates that consumer has level of satisfaction to a certain level at various employment status. The table-13 shows the result of one-way ANOVA to test the effect of employment status on the level of consumer satisfaction. The variable employment status is measured in seven groups: Business, Govt Employee, Private Employee, Retired, Not Employed currently, Student, and Farmer. The results ($p > 0.05$) indicate that there is no significant difference in the level of satisfaction with different employment status. **Hence H_5 is rejected.**

Table-12: Descriptive Statistics for employment status based analysis

Particulars	Employment status	N	Mean	Std. Deviation
Level of consumer satisfaction towards purchase of Certified Pre-owned car	Business	35	3.71	.750
	Govt Employee	18	4.17	.383
	Private Employee	24	3.92	.654
	Retired	1	4.00	.
	Not Employed currently	5	3.20	1.304
	Student	16	3.63	.957
	Farmer	1	4.00	.
	Total	100	3.81	.761

Table-13: ANOVA of employment status based analysis

Particulars	Sum of Squares	df	Mean Square	F	Sig.	
Level of consumer satisfaction	Between groups	5.364	6	.894	1.598	.156
	Within groups	52.026	93	.559		
	Total	57.390	99			

5.3.6. Analysis of level consumer satisfaction towards certified pre-owned car based on annual income:

The independent variable income is measured in seven groups: Rs 1-to- 3 Lakhs, Rs 3-to-5 Lakhs, Rs, 5-to-7 Lakhs, Rs 7-to-9 Lakhs, Rs 9-to11 Lakhs, Rs 11-to-14 Lakhs and Rs 14 Lakhs and above. Table-14 shows the customers who belong to the annual income group Rs 9-to11 Lakhs and Rs to-9 Lakhs have more level of satisfaction than others with a mean score of 3.81. The table-14 shows the result of one-way ANOVA to test the effect of annual income on consumer level of satisfaction. The results indicate that annual income has not significant effect on the level of consumer satisfaction as p-value (0.761), is greater than 0.05. **Hence H_6 is rejected**

Table-13: Descriptive statistics for annual income based analysis

Particulars	Annual income (in Rs)	N	Mean	Std. Deviation
Level of consumer satisfaction towards purchase of Certified Pre-owned car	1 to 3 Lakhs	30	3.63	.890
	3 to 5 Lakhs	32	3.81	.896
	5 to 7 Lakhs	9	3.78	.441
	7 to 9 Lakhs	13	4.08	.277
	9 to 11 Lakhs	8	4.13	.354
	11 to 14 Lakhs	6	4.00	.000
	14 Lakhs and Above	2	3.00	1.414

	Total	100	3.81	.761
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Table-14: ANOVA of annual income based analysis

Particulars	Sum of Squares	df	Mean Square	F	Sig.	
Level of consumer satisfaction towards Certified Pre-owned car	Between groups	4.195	6	.699	1.222	.302
	Within groups	53.195	93	.572		
	Total	57.390	99			

5.3.7. Analysis on the level of consumer satisfaction towards certified pre-owned car based on family type:

As shown in table-14, comparing the means between the type of family obtained through the study, the joint family appears to have more level of satisfaction towards certified pre-owned car (mean=3.97) than the nuclear family (mean=3.73). An independent sample t-test is used to understand whether the level of satisfaction differed based on family type. The table-15 shows the results of the level of satisfaction towards certified pre-owned car according to the family type variable. The results indicate that there is no significant difference between the level of satisfaction with Nuclear and joint family consumers [$t (df=97) = -1.533, p = 0.128$] at the 5% level of significance. **Hence H_7 is rejected.**

Table-15: Descriptive statistics for family type based analysis

Particulars	Gender	N	Mean	Std. Deviation
Level of consumer satisfaction towards purchase of Certified Pre-owned car	Nuclear	63	3.73	.884
	Joint	36	3.97	.446

Table-16: Independent sample t-test for family type based analysis

Particulars	t-test for Equality of Means		
	t	df	Sig.(2-tailed)
Level of consumer satisfaction towards purchase of Certified Pre-owned car	-1.533	97	.128

5.3.8. Analysis on the level of consumer satisfaction towards certified pre-owned car based on the size of the family:

The variable of size of the family is measured in three groups: 1-to-2 members, 3-to-4 members, and 5 and above members. As we can see in table 17, there is no much difference in the mean scores of respondents with different family size. Thus

the data do not provide sufficient information to draw the conclusion that on the level of satisfaction towards certified pre-owned car. In addition to that, table-18 shows the result of one-way ANOVA to test the effect of family size on consumer satisfaction. The results indicate that family size has no significant effect on the level of satisfaction at 5% level of significance. **Hence H₀ is rejected.**

Table-17: Descriptive statistics for family size based analysis

Particulars	Qualification	N	Mean	Std. Deviation
Level of consumer satisfaction towards purchase of Certified Pre-owned car	1 to 2 Members	11	3.36	.924
	3 to 4 Members	56	3.86	.796
	5 and Above Members	33	3.88	.600
	Total	100	3.81	.761

Table-18: ANOVA of family size based analysis

Level of consumer satisfaction	Particulars	Sum of Squares	df	Mean Square	F	Sig.
Level of consumer satisfaction	Between Groups	2.472	2	1.236	2.183	.118
	Within Groups	54.918	97	.566		
	Total	57.390	99			

5.3.9. Analysis on the level of consumer satisfaction towards certified pre-owned car based on number of children.

The independent variable number of children is measured in five groups: None, One, Two, Three, Three and above. Table-19 shows the customers who belong to the number of children Three, and Two have more level of satisfaction than others with a mean score of 3.81. The table-20 shows the result of one-way ANOVA to test the effect of number of children on consumer level of satisfaction. The results indicate that number of children has not significant effect on the level of consumer satisfaction as p-value (0.097), is greater than 0.05. **Hence H₀ is rejected**

Table-19: Descriptive statistics for number of children based analysis

Particulars	Annual income (in Rs)	N	Mean	Std. Deviation
Level of consumer satisfaction towards purchase of Certified Pre-owned car	None	45	3.67	.798
	one	28	3.75	.701
	Two	23	4.04	.706
	Three	3	4.33	.577
	Three and above	1	5.00	
	Total	100	3.81	.761

Table-20: ANOVA of number of children based analysis

Particulars	Sum of Squares	df	Mean Square	F	Sig.	
Level of consumer satisfaction towards purchase of Certified Pre-owned car	Between groups	4.517	4	1.129	2.029	.097
	Within groups	52.873	95	.557		
	Total	57.390	99			

CONCLUSION

From the above results, we have reached the conclusion that the demographic factors of consumer's gender, age, marital status, educational qualification, employment status, annual income, type of family, the size of the family and number of children have no significant effect on consumer level of satisfaction. In addition, our study shows that only gender a significant impact on consumer level of satisfaction. The results indicate that there is a significant difference between the level of satisfaction of male and female consumers. The male gender appears to have more level of satisfaction than the female gender. The results revealed that only one demographic factor viz., gender significantly affect the consumer level of satisfaction. The remaining demographic factors have not shown any significant impact on consumer level of satisfaction towards certified pre-owned car purchase behavior in Bengaluru city in the current research.

LIMITATIONS AND FUTURE RESEARCH

The sample was limited by a demographic variable of geography which limits the generalizability of results to other consumers. The research was conducted only on the certified pre-owned car buyers. Results may differ for consumers of non-certified pre-owned cars. These limitations lead to a recommendation that further research studies should use samples from different geographic locations provide further evidence to verify the findings of the study. A future research may be undertaken to make a comparison between the certified and non-certified pre-owned cars. The consumer level of satisfaction can be compared with that of tier II cities. These variables can be taken up in future research for the analysing level of satisfaction with certified cars. Finally, since the study of pre-owned goods can be taken for the sustainable consumption which helps in maintain the healthy environment.

REFERENCE

[1] David F Midgley. (1983) Pattern of Interpersonal Information seeking for the purchase of a Symbolic Product. Journal of Marketing Research, 20(1) 74-83
 [2] Solomon, M.R. (2002), Consumer Behaviour – Buying , Having and Being , Prentice-Hall of India, New Delhi, pp.177-84
 [3] Rusert, B; and Wiseman, P (2003) "Certified Pre-Owned Vehicles Seen as attractive alternative to New and Used Vehicles" Harward Business Review Vol 46 PP 96-98.
 [4] Gill, A.S. and Sudhir, K. Jain (2005), "Consumer Purchase Process for Passenger Cars in India," Journal of Marketing and Communication, Vol.1, Issue 2, September-December, pp. 67-70.

The Impact of Demographics Factors on Level Consumer Satisfaction towards Purchase of Certified Pre-Owned Cars in
Bengaluru City

“One Man’s Trash Can Be another Man’s Treasure”

- [5] Raja K G and Suresh A M (2006) Measuring customer satisfaction for small cars: An empirical study. Retrieved on Jul 29, 2008 from <http://www.indianjournalofmarketing.com/archives/2006/feb2006.htm>.
- [6] Johnson, E., & Sargunam, S. (2011). Attitude of Car Buyers’ Towards Imported used Cars: An Indian Empirical Study.
- [7] Biradar sharnagoud, Kulkarni S V Pre-Owned Car Market in India: An Overview nternational Journal of Multidisciplinary Research and Development Volume: 2, Issue: 7, 567-574 July 2015e-ISSN: 2349-4182p-ISSN: 2349-5979
- [8] J.D. Power and Associates, National Automobile Dealers Association (NADA): Used Car Guide August (2016) P 1-1.