Impact of Demographic Variables on Consumer's Online Buying Behavior

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Abstract-**With the globalization and ease of business initiative by Indian Government coupled with massive internet and smartphone penetration, organizations target customers across length and breadth of the country. Since Internet is the backbone of e-commerce, the online retailers must understand the importance of various demographic variables that impact the buying decisions of the customers across all age groups, gender, income levels, etc. The present paper has used both Qualitative and Quantitative research methods to study the impact of various demographic variables of customers on online shopping patterns like what they buy, how frequently they buy, how much they spend and likelihood of repeat purchase. The data was collected using a questionnaire across Tier 1, Tier 2 and Tier 3 cities. Simple random sampling was used and a sample of 120 respondents was considered for data analysis. The result of the study reveal that online shopping in India is significantly affected by various demographic variables like gender, income, location, education and marital status. Education play a vital role in online shopping spent. Also, there is a significant impact of gender on online shopping spent, where males are spending more in comparison to women. Also it is clearly seen that there is a significant relationship between Income and online shopping spent. Internet savviness is crucial for online shopping.**

Keywords: Consumer Behavior, Demographic variables, Independent Sample t test, Levene's Test, Online buying behavior, Post hoc

INTRODUCTION

The internet revolution has brought about a paradigm shift in the way things are done. The internet and worldwide web (www) have dramatically changed the way customers seek and use information. The internet has become an important place to conduct businesses. In order to utilize this medium to its maximum use, businesses must take into account who their customers are, what are their spending habits, and what products and services they prefer. Consuming habits have seen major changes over decades. The disposable income of middle class is increasing, and the focus is on spending than saving.

With ease of access of internet and smartphone penetration across all age groups, customers are free to shop anytime and from anywhere. The number of internet users are increasing constantly thanks to cheap smart phones and affordable internet rates, which is a significant factor for a consistent rise in online shopping. E-shops are virtually active all the time and customers have the liberty to order things at their will.

E-business has also helped in connecting with the customers directly and it helps e-retailers to understand their customers in terms of their choice, brand preference, their spending capacity and many more demographic factors which help them to improve their services and offerings to retain them.

However, it is not that only e-retailers are benefitted from online shopping. Online shopping brings more advantages to customers as well.

Online shopping will not be of much success had it not provided significant benefit to the customers. Customers can also compare brands and prices and also read other customer's reviews about the product. In online shopping, customer can browse thousands of products and brands of his/her choice at a reasonable rate and delivered at doorstep at his/her convenient time.

There are many factors affecting online shopping, therefore the statement of the problem can be represented as mentioned below:

What are the demographic factors that affect online shopping?
What are the factors (in general) that affect online shopping?
What encourages people to use online shopping?

The research significance due to following:
Millions of people are online on the internet daily to search about products and purchase from thousands of online merchants.

Due to various benefits of online shopping, more people today prefer this method over conventional shopping, as the customer decision making behavior has changed significantly towards online shopping.

LITERATURE REVIEW

The Internet is changing the way consumers shop for goods and services and has rapidly evolved globally. Online shopping is the process where consumers purchase products or services over the Internet. Bellman, Lohse and Johnson (1999) opined that demographic variable constitutes a very low contribution in purchase decision. Consumer's characteristics comprises of demographic factors (age, income, gender & education), which affect their online purchase intention. As far as age is concerned, GenY shows more promise to purchase online because of their curiosity in using new technology for comparing and evaluation the options. According to Burke(2002) and Wood (2002), four demographic factors (age, income, gender and education) have a compelling reference on buyer's attitude towards e-shopping.

Six shopping profiles have also been identified, each with different objectives: price shoppers, discovery shoppers, emotional shoppers, strategic shoppers, fashionistas, and shopping fans". Monsuwe et al., (2004) propositioned that there are 5 external factors that bring an insight into comprehending the shoppers' intentions when it comes to e shopping. These factors are shoppers persona, environmental factors, product features, earlier e shopping experiences, and the shoppers' belief in e shopping. Environmental factors

might let customer for intention shopping on internet, like urgency, unable to move freely, long distances, specific needs, and lure of choices. Moreover, e shopping could be an alternative of crowded market places, and in future the number of physical stores for apparels, shoes, electronic items, foods and cosmetics may reduce drastically. Shoppers decision to buy online is also get effected by the type of product or services they are looking for. Less touch and help, also the urge to get the feel of product impacted the suitableness and differs products according to their availability for e shopping. Depending on product categories conceived by information economists, Gehrt and Yan (2004) said explore goods that are goods that can be rated easily before a shopper shop them, i.e (books), against products that can be experienced that are more difficult to assess, i.e, , (clothing). Findings of e shopping have stressed mainly on demographic, psychographic, and personality characteristics. In their findings, Xia, Monroe and Cox (2009) founded that shoppers with shopping goal are more receptive towards advertising campaigns, such as "pay less" and "discount" while shoppers without shopping goals are receptive towards advertising campaigns, such as "save more" and "free gift". Moreover, a finding by Baldevbhai (2015) showed that there is no critical difference among gender and e shopping in India.

OBJECTIVES & RESEARCH VARIABLES

The objectives of the study can be summarized as:
- Identify the various demographic factors such as (education level, gender, income, salary, ect) of internet users who shop online.
- Study the effect of demographic factors on the online shopping buying behavior of customers.
- Explore the advantages and disadvantages of online shopping.
- Contribute to the development of online shopping through the results of the research.
- Review the identified consumer-perceived benefits obtained from online shopping.

Figure 1 represents the research model used to identify the effect of demographic factors of customer's online shopping buying behaviors.
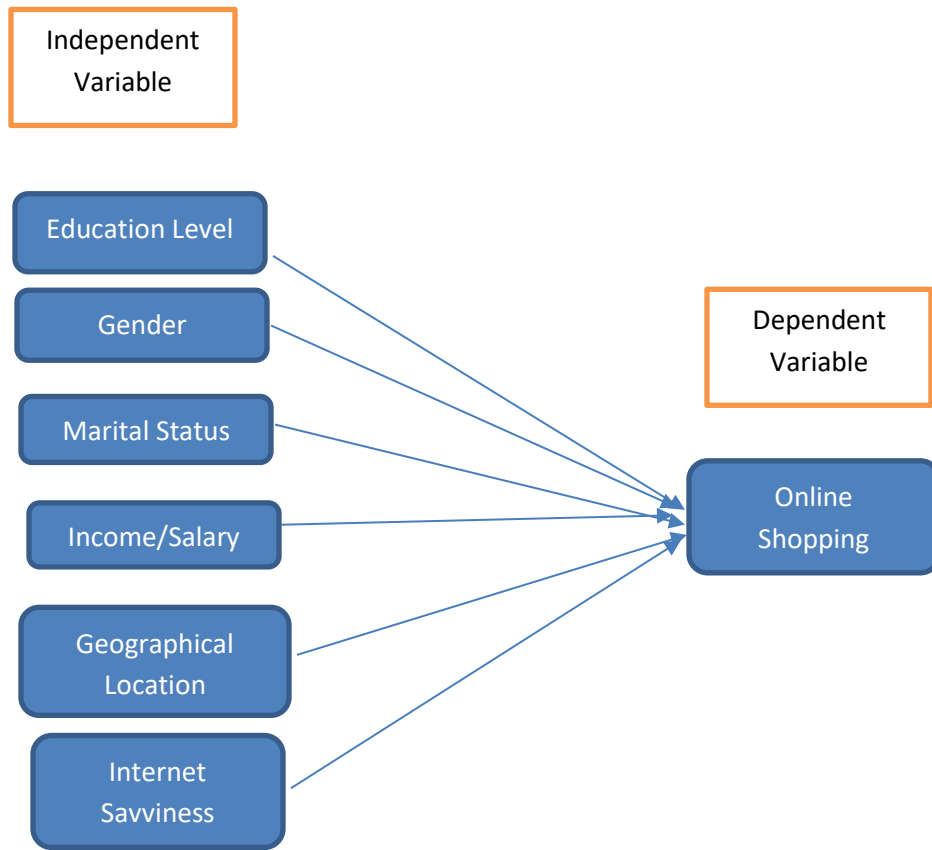
Figure 1. Research model, variables and hypotheses

RESEARCH VARIABLES

The research variables are classified into independent and dependent variables.
Independent variables: Education level, gender, salary, income, trust and the ability to use internet.
Dependent variable : Online shopping.
In order to achieve the objectives of this study, the following hypotheses were proposed from the research model. There are six hypotheses as shown in Figure 1. The research hypotheses are:
H0: There is no significant impact of education level on online shopping.
H0: There is no significant impact of gender on online shopping.
H0: There is no significant relationship between Marital Status and online shopping.
H0: There is no significant relationship between income/salary and online shopping.
H0: There is no significant impact of geographical location on online shopping.

H0: There is no significant impact of internet savviness on online shopping.

RESEARCH METHODOLOGY

This paper adopts the exploratory analysis approach and is carried out using primary data. The primary data was collected using a structured questionnaire. The data was collected from 120 customers using google form. SPSS is the tool used in this research study to analyze the data and test the hypothesis. The study encompassed all age groups and location. SPSS is the tool used in this research study to analyze the data and test the hypothesis.

DATA ANALYSIS & INTERPRETATION

There are five hypothesis statements which have been tested for this study which are summarized below:
H0 : There is no significant impact of education level on online shopping spent

ANOVA

ANNUAL_SPENT

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.167E8	2	1.084E8	9.969	.000
Within Groups	1.272E9	117	1.087E7		
Total	1.488E9	119			

ANNUAL_SPENT

Tukey HSD

		Subset for alpha = 0.05	
EDUCATION_LEVEL	N	1	2
UNDERGRADUATE	24	5.2083E3	
GRADUATE	65	6.2538E3	
POST GRADUATE	31		8.9032E3
Sig.		.398	1.000

Means for groups in homogeneous subsets are displayed.

Interpretation:

From the table above, since the p value at 95% significance level is <.05, so the hypothesis is rejected.

Therefore, we can say that there is a significant impact of education level on online shopping spent. Also, The online shopping spent of Undergraduate and Graduate is quite similar as compare to Post graduate,

H0: There is no significant impact of gender on online shopping spent.

Group Statistics

	GENDER	N	Mean	Std. Deviation	Std. Error Mean
ANNUAL_SPENT	Male	78	7.3333E3	3665.97790	415.09026
	Female	42	5.6071E3	3013.25469	464.95529

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
ANNUAL_SPENT	Equal variances assumed	3.927	.050	2.612	118	.010	1726.19048	660.90698	417.41473	3034.96623
	Equal variances not assumed			2.770	98.935	.007	1726.19048	623.28432	489.44916	2962.93179

Interpretation:

From the table above, since the p value at 95% significance level is <.05, so the hypothesis is rejected.

Therefore, we can say that there is a significant impact of gender on online shopping spent.

There is no significant impact of marital status on online shopping spent.

Group Statistics

	MARITAL_STATUS	N	Mean	Std. Deviation	Std. Error Mean
ANNUAL_SPENT	Married	79	6.5823E3	3312.20585	372.65227
	Unmarried	41	7.0122E3	3961.51455	618.68463

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
ANNUAL_SPENT	Equal variances assumed	2.714	.102	-.630	118	.530	-429.91664	682.46743	-1781.38796	921.55468
	Equal variances not assumed			-.595	69.592	.554	-429.91664	722.24676	-1870.54100	1010.70772

Interpretation:

From the table above, since the p value at 95% significance level is >.05, so the null hypothesis is accepted.

Therefore, there is significant impact of marital status on online shopping spent.

H0: There is no significant relationship between income/salary and online shopping spent.

Histogram

Dependent Variable: ANNUAL_SPENT

Mean =-4.46E-16
Std. Dev. =0.996
N =120
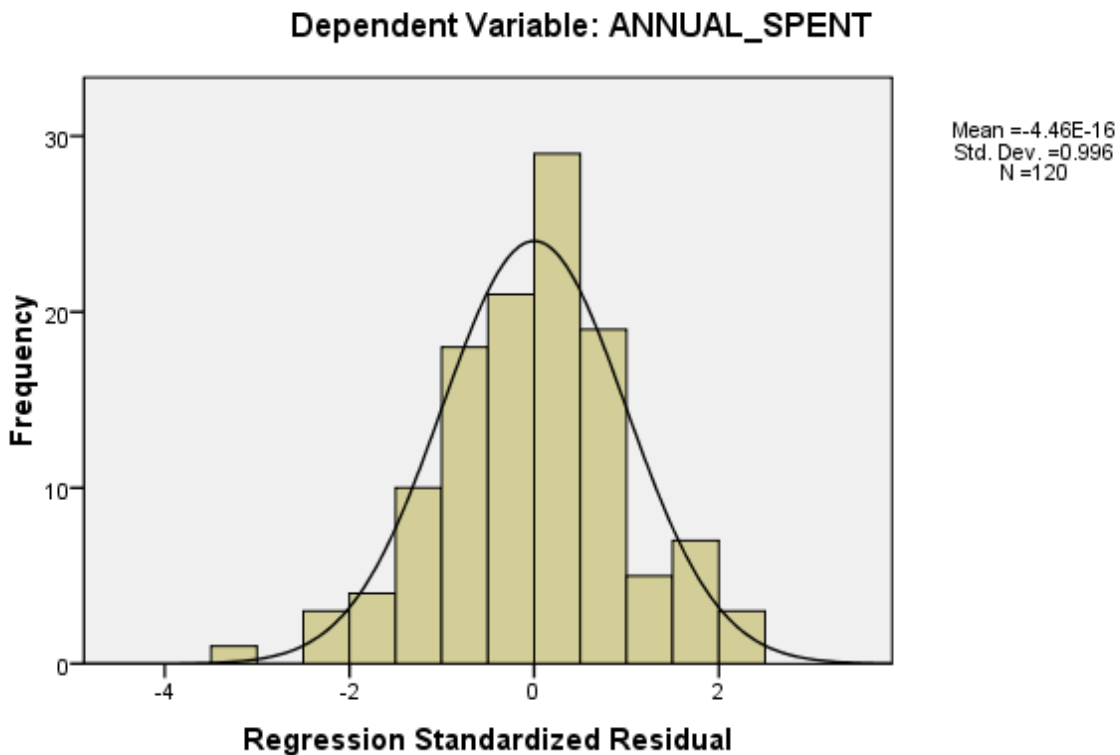
The data was found to have a normal distribution.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.877[a]	.769	.767	1705.55531

a. Predictors: (Constant), ANNUAL_INCOME

b. Dependent Variable: ANNUAL_SPENT

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.145E9	1	1.145E9	393.684	.000[a]
	Residual	3.433E8	118	2908918.921		
	Total	1.488E9	119			

a. Predictors: (Constant), ANNUAL_INCOME

b. Dependent Variable: ANNUAL_SPENT

Coefficients[a]

| Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2735.758	501.793		-5.452	.000
	ANNUAL_INCOME	.031	.002	.877	19.841	.000

a. Dependent Variable: ANNUAL_SPENT

Interpretation:

From the table above, since the p value at 95% significance level is <.05, so the null hypothesis is rejected.

Therefore, we can say that there is a significant relationship between Income and online shopping spent.

H0: There is no significant impact of geographical location on online shopping spent.

ANOVA

ANNUAL_SPENT

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.672E8	2	3.836E8	62.223	.000
Within Groups	7.213E8	117	6164717.181		
Total	1.488E9	119			

Multiple Comparisons

ANNUAL_SPENT

Tukey HSD

(I) CITY_TIER	(J) CITY_TIER	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	3512.64167[*]	5.15795E2	.000	2288.1891	4737.0943
	3	7470.39897[*]	6.78360E2	.000	5860.0331	9080.7649
2	1	-3512.64167[*]	5.15795E2	.000	-4737.0943	-2288.1891
	3	3957.75730[*]	6.26888E2	.000	2469.5801	5445.9345
3	1	-7470.39897[*]	6.78360E2	.000	-9080.7649	-5860.0331
	2	-3957.75730[*]	6.26888E2	.000	-5445.9345	-2469.5801

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

Multiple Comparisons

ANNUAL_SPENT
Tukey HSD

(I) CITY_TIER	(J) CITY_TIER	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	3512.64167*	5.15795E2	.000	2288.1891	4737.0943
	3	7470.39897*	6.78360E2	.000	5860.0331	9080.7649
2	1	-3512.64167*	5.15795E2	.000	-4737.0943	-2288.1891
	3	3957.75730*	6.26888E2	.000	2469.5801	5445.9345
3	1	-7470.39897*	6.78360E2	.000	-9080.7649	-5860.0331
	2	-3957.75730*	6.26888E2	.000	-5445.9345	-2469.5801

ANNUAL_SPENT

Tukey HSD

CITY_TIER	N	Subset for alpha = 0.05		
		1	2	3
3	21	2.3810E3		
2	62		6.3387E3	
1	37			9.8514E3
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Interpretation:

From the table above, since the p value at 95% significance level is <.05, so the null hypothesis is rejected.

Therefore, we can say that there is a significant impact of geographical location on online shopping spent.

H0: There is no significant impact of internet savviness on online shopping spent.

ANOVA

ANNUAL_SPENT

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.048E8	2	3.524E8	52.617	.000
Within Groups	7.836E8	117	6697667.653		
Total	1.488E9	119			

Multiple Comparisons

ANNUAL_SPENT
Tukey HSD

(I) INTERNET_SAVVINESS	(J) INTERNET_SAVVINESS	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
LOW	MEDIUM	-3573.84615*	6.25744E2	.000	-5059.3077	-2088.3846
	HIGH	-6528.84615*	6.40174E2	.000	-8048.5617	-5009.1306
MEDIUM	LOW	3573.84615*	6.25744E2	.000	2088.3846	5059.3077
	HIGH	-2955.00000*	5.34951E2	.000	-4224.9274	-1685.0726
HIGH	LOW	6528.84615*	6.40174E2	.000	5009.1306	8048.5617
	MEDIUM	2955.00000*	5.34951E2	.000	1685.0726	4224.9274

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

Multiple Comparisons

ANNUAL_SPENT

Tukey HSD

(I) INTERNET_SAVVINESS	(J) INTERNET_SAVVINESS	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
LOW	MEDIUM	-3573.84615*	6.25744E2	.000	-5059.3077	-2088.3846
	HIGH	-6528.84615*	6.40174E2	.000	-8048.5617	-5009.1306
MEDIUM	LOW	3573.84615*	6.25744E2	.000	2088.3846	5059.3077
	HIGH	-2955.00000*	5.34951E2	.000	-4224.9274	-1685.0726
HIGH	LOW	6528.84615*	6.40174E2	.000	5009.1306	8048.5617
	MEDIUM	2955.00000*	5.34951E2	.000	1685.0726	4224.9274

ANNUAL_SPENT

Tukey HSD

INTERNET_SAVVINESS	N	Subset for alpha = 0.05		
		1	2	3
LOW	26	2.8462E3		
MEDIUM	50		6.4200E3	
HIGH	44			9.3750E3
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Interpretation:

From the table above, since the p value at 95% significance level is <.05, so the null hypothesis is rejected.

Therefore, we can say that there is a significant impact of internet savviness on online shopping impact.

FINDINGS AND CONCLUSION

From the above study we can say education play a vital role in online shopping spent. Also, there is a significant impact of gender on online shopping spent, where males are spending more in comparison to women. Also it is clearly seen that there is a significant relationship between Income and online shopping spent. Internet savviness is crucial for online shopping.

SUGGESTIONS

Since Smart phone penetration and cheaper internet is accessible to most of the population, e retailers should strategize to reach to people who are not very qualified but aspire to shop online. Also, to attract more female customers e retailers should be giving attractive offers.

REFERENCE

[1] Bellman, S., Lohse, G. L., & Johnson, E. J. (1999). Predictors of online buying behavior. *Communications of the ACM*, *42*(12), 32-38.

[2] Burke, R. R. (2002). Technology and the customer interface: what consumers want in the physical and virtual store. *Journal of the academy of Marketing Science*, *30*(4), 411-432.

[3] y Monsuwé, T. P., Dellaert, B. G., & De Ruyter, K. (2004). What drives consumers to shop online? A literature review. *International journal of service industry management*.

[4] Gehrt, K. C., & Yan, R. N. (2004). Situational, consumer, and retailer factors affecting Internet, catalog, and store shopping. *International Journal of Retail & Distribution Management*.

[5] Xia, L., Monroe, K. B., & Cox, J. L. (2004). The Price is Unfair! A Conceptual Framework of Price Fairness Perceptions. Journal of Marketing, 68(4), 1–15. https://doi.org/10.1509/jmkg.68.4.1.42733

[6] Baldevbhai, P. (2015). A study on consumer demographic profile influences on online shopping behaviour. *Indian Journal of Applied Research*, *5*(3).