

# Online Shopping Behavior : Demographics' Influence on Online Travel

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## Abstract

Online purchasing of travel tickets has become a popular phenomena, yet the understanding of influence of demographics needs attention. Many behavioral factors including demographic variables influence consumers while purchasing travel tickets online. The purpose of this study was to identify which of these demographic variables influenced online purchase intention/online satisfaction while booking train tickets online. Also, an attempt was made to identify the demographic variables that predicted online train ticket booking behavior. A sample of 729 Internet users were approached, data was collected using a questionnaire during the year 2014, and logistic regression analysis was carried out using SPSS software. It was found that gender, educational qualifications, and income significantly influenced the actual online train ticket booking behavior ; whereas, age and profession were found to be insignificant.

**Keywords :** online travel, online booking, influence of demographics, online shopping

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Online shopping in the recent past has recorded tremendous growth not in one industry, but across diverse businesses, of which travel service is not an exception. A study by Joshi and Achuthan (2016) indicated that along with metros, tier II and tier III cities & towns are registering considerable sales of products and services using the online channel. The study also indicated that almost one - third of travel booking is done online; and 1 out of 5 online users visit IRCTC, the website of Indian railways. One of the main travel service providers in India, Indian railways embraced online ticket booking system on par with other large private e-commerce entities. Consumers were allowed to book train tickets online through their own website - irctc.com along with other OTAs like makemytrip.com, yatra.com. Many of the consumers identified early advantage from the online booking system, and soon, the web traffic increased multifold. However, as of 2013 data, the online booking of train tickets stood at 42% of the total train tickets booked ("IRCTC website to book 7,200 tickets per minute: IRCTC," 2013). It was also understood that not all consumers who use the Internet were purchasing train tickets online. There are many reasons why Internet users do not want to purchase train tickets online, but some of the factors that are influencing online purchase of train tickets are : trust, website features, convenience, attitude, and consumer demographics, etc. This study focuses on understanding whether demographics have any influence in booking of train tickets online.

Zhang and Li (2002) found that demographics have a significant impact on consumers' shopping intention as well as behavior and satisfaction along with other external environmental factors, personal characteristics, and e-store environment. Hence, this study focuses on the influence of select demographics (gender, age, education, income, profession) on online booking of train tickets and influence on online purchase intention/online satisfaction.

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## Literature Review

Many research studies are available on online shopping which have included TAM, TPB, and TRA models where variables like attitude, subjective norm, perceived EOU, perceived usefulness, etc. were measured. Over a period of time, researchers tried to understand demographics' influence on online purchase intention. Padmanabh, Jeevanandha, and Jose (2016) found that while purchasing household items online, women in the age group of 36-55 years were the decision makers, but they were reluctant to purchase online ; so, their concerns need to be addressed. This stresses the need to study demographics' influence on online purchase intention. According to Garbarino and Strahilevitz (2004), gender plays a role in perception of level of risk in the online purchasing environment. The study opined that women perceived a higher level of risk in online purchasing than men. Also, compared to men, women's willingness to buy online increases and there is a reduction in perceived risk if a site has been recommended by a friend. However, one of the earlier studies by Bhatnagar, Misra, and Rao (2000) found that the demographics were not significant in determining the online purchase intention, though there was a difference in types of products bought by males and females online.

Few studies have been conducted exclusively on the travel industry. One such study is of Kim, Lehto, and Morrison (2007), who examined the gender differences in the context of online travel website content preferences and functionality. It was found that there were gender differences both in terms of attitudes to information channels and travel website functionality preferences.

With reference to the influence of the online environment, one of the studies by Richard, Chebat, Yang, and Putrevu (2010) indicated that men differ from women in web navigation behaviour with men engaging in less exploratory behaviour and developing less website involvement than women. When it comes to key drives of website attitudes, both men and women look for entertainment, challenge, and effectiveness of information content. The study by Gonzalez and Stanley (2006) indicated that older consumers represent a sizable amount of market for travel products and services. It was indicated that older consumers have greatest personal disposable income among the affluent segment, and so, online travel companies are required to study to capture the real marketing value. Related to this, Wan, Nakayama, and Sutcliffe (2012) studied whether the impact of age differed across various types of goods and the study focused on influence of age and shopping experience on classification of search, experience, and credence goods. It was identified that age of the consumer and web shopping experience were significant factors. Web shopping experience was not a significant factor for search goods, but was for experience and credence goods. There was an interaction effect between age and web shopping experience for one credence goods.

Unlike few previous studies, the study by Prasad and Sharma (2016) researched exclusively on food & grocery category online buying behaviour and its influence based upon demographic variables like age, gender, family size, and family type (nuclear/joint). It was found that demographics did not impact online channel usage for food & grocery purchases. However, few studies tried to study on travel alone and one such study was conducted by Hernández, Jiménez, and Martín (2011). They analyzed whether the socioeconomic variables like age, gender, and income had an influence on the experienced e-shoppers, that is, consumers who often purchased travel tickets online. It was found that these variables moderated neither the influence of previous use of the Internet nor the perceptions of e-commerce.

Dahiya (2012) examined how online shopping in India is influenced by demographic factors like age, gender, marital status, income, and family size. The study was carried out across Chennai, Mumbai, Hyderabad, Bangalore, and Delhi with a sample of 580 respondents through a questionnaire. It was found that income, age, marital status, and education did not influence the online shopping intention ; whereas, family size and gender influenced online shopping intention.

Conyette (2011) studied the impact of demographics on online purchase intention and investigated which of these demographic variables should be considered to segment the online consumer base in the travel industry. Data

was collected from a sample of 1142 respondents, and it was found that age had no significant relationship with online booking intention ; whereas, with the rising education levels, there was a positive relationship with online booking intention. Though when tested with income's influence on online booking intention, upto a certain level of income, there was a significant relationship after which it reversed, indicating that the 'very high income group' segment relied on personal travel advice than on an automated online portal.

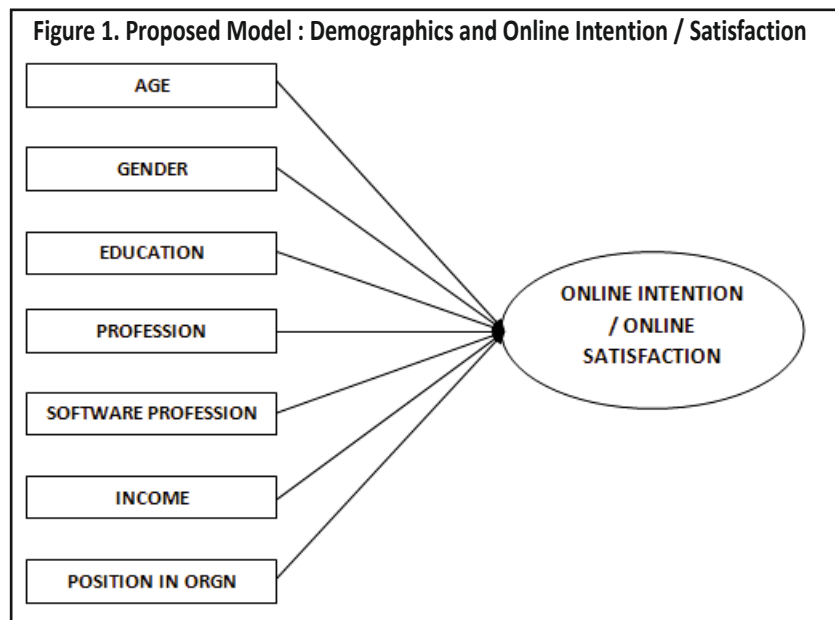
Goldsmith and Litvin (1999) examined segmentation of the travel industry, where in the interpretation was carried out to find how light users of travel agents differed from heavy users. The study was carried out on Singapore travelers, and it was found that heavy users were more involved in vacation travel, were more knowledgeable and innovative, and they were likely to be opinion leaders. There were also differences found among travelers who went for pleasure trips or business trips. Especially in case of pleasure trips, which were consumer initiated, differences were found in different segments. Javalgi, Thomas, and Rao (1992) found that there existed differences between senior and non-senior pleasure travelers in the U.S. in terms of usage of package trips, travel agents, and other travel related characteristics, and hence, these segments need to be addressed separately.

Jager and Ezeuduji (2015) studied whether socio-demographic variables would influence the travelers to choose online or offline channels (travel agent). The study was carried out across South African travelers, and it was found that age was not the main predictor to book online. Other demographics like income and race were found to have a significant relationship with booking travel tickets online.

Hashim, Ghani, and Said (2009) studied whether demographics' profile influenced online shopping during which five demographic variables namely age, gender, job designation, salary, and marital status were considered. It was found that males were more positive compared to female respondents towards online shopping attitude. Marital status was found to be insignificant, whereas consumers with good earnings/high net worth individuals tended to perform online shopping than with lower income or salaried consumers. Online shopping was done more by consumers within the age group of 30 - 39 years as compared to consumers in the age group of 20 - 29 years and >40 years, indicating that online shoppers were mostly within the group of 30-39 years age category. Nayyar and Gupta (2010) evaluated various demographic and psychographic factors that influenced consumers' willingness to purchase online. Data was collected from 500 consumers across urban and semi-urban locations in India using non-probabilistic convenience sampling method. It was found that males adopted computer technology faster than females which was also evident in their usage of the Internet for emailing, downloading, and purchasing activities. Another demographic - age was found to have an influence on internet retail adoption. Even education was found to have an insignificant association with online adoption. It was understood that 'higher position in the organization' indicated more online purchases. This study focused in general on online shopping, leaving a gap for the researchers to investigate specifically to online purchasing specific to few sectors like travel. Few of the other studies carried out by Koufaris (2002), Park and Jun (2003), Dholakia and Uusitalo (2002) also discussed the influence of demographics on online shopping, and motivated the present study. Furthermore, very little research has been carried out with reference to the Indian online travel industry, and more specifically, train travel. Hence, the present study was conducted to fill this research gap. Based on the literature review, the following objectives and hypotheses were framed. The Figure 1 explains the proposed model for the study.

## **Objectives of the Study**

- (1)** To examine the association between consumer demographics with online purchase intention as well as online satisfaction while booking train tickets online.
- (2)** To identify the best predictor among demographics that influenced consumers to book train tickets online.



## Research Methodology

The study was carried out in the city of Hyderabad. Using Krejcie and Morgan's table, a sample of 729 respondents who used the Internet were identified, of which there were 514 respondents who booked train tickets online and 215 did not book train tickets online. Purposive sampling method was used to identify the respondents as the subjects were to be selected deliberately by researchers who are more likely to meet one or more of the research criteria (Vogt, 1999).

Respondents were chosen based on whether they used the Internet, had purchased train tickets during the last six months, and were staying in the city of Hyderabad. Data was collected during 2013-14 using a structured questionnaire. Depending on the population, the demographic variables have been classified into different categories. Using Likert scale, online purchase intention and online satisfaction information was captured and was binned (as LOW & HIGH) from those who used the Internet for booking train tickets online. To study the association between demographics and online purchase intention/online satisfaction, chi-square test was conducted. To identify the best predictor among demographics that influenced consumers to book train tickets online, logistic regression was used as both the dependent and independent variables being the categorical variables. Logistic regression has been used as one of the prominent statistic methods by few of the researchers (Al-Ghaith, Sanzogni, & Sandhu, 2010 ; Chang & Chang, 2013 ; Keese & Shephard, 2011, Rokhman, 2011) who tried to predict the variables that influenced technology/innovation usage.

The following hypotheses are framed based on the literature review carried out :

- ↯ **H<sub>0</sub>1:** There is no association between consumers' age and online purchase intention of train tickets.
- ↯ **H<sub>0</sub>2:** There is no association between gender and online purchase intention of train tickets.
- ↯ **H<sub>0</sub>3:** There is no association between consumers' education and online purchase intention of train tickets.
- ↯ **H<sub>0</sub>4:** There is no association between consumers' profession and online purchase intention of train tickets.
- ↯ **H<sub>0</sub>5:** There is no association between software professionals and online purchase intention of train tickets.

- ↗ **H<sub>0</sub>6:** There is no association between consumers' income and online purchase intention of train tickets.
- ↗ **H<sub>0</sub>7:** There is no association between consumers' position in an organization and online purchase intention of train tickets.
- ↗ **H<sub>0</sub>8:** There is no association between consumers' age and satisfaction obtained from online purchase of train tickets.
- ↗ **H<sub>0</sub>9:** There is no association between gender and satisfaction obtained from online purchase of train tickets.
- ↗ **H<sub>0</sub>10:** There is no association between consumers' education and satisfaction obtained from online purchase of train tickets.
- ↗ **H<sub>0</sub>11:** There is no association between consumers' profession and satisfaction obtained from online purchase of train tickets.
- ↗ **H<sub>0</sub>12:** There is no association between software professionals and satisfaction obtained from online purchase of train tickets.
- ↗ **H<sub>0</sub>13 :** There is no association between consumers' income and satisfaction obtained from online purchase of train tickets.
- ↗ **H<sub>0</sub>14 :** There is no association between consumers' position in an organization and satisfaction obtained from online purchase of train tickets.

## Instrument Variables

**(1) Demographics :** The respondents were asked to respond to demographic questions in order to create a demographic profile of the participants. The following demographics were considered : age, gender, education qualifications, occupation, income, software professional, and whether they booked train tickets online or not.

**(2) Online Purchase Intention:** Online purchase intention was determined using three items identified from previous studies of Kim and Park (2005) and Shim, Eastlick, Lotz, and Warrington (2001) using Likert scale (with 1- *strongly disagree* & 5 - *strongly agree*).

**(3) Online Satisfaction :** Four items from the study carried out by Gefen and Straub (2004) were used to capture the online satisfaction of the consumers who were using the Internet to book train tickets. Responses were captured using a Likert scale (1- *strongly disagree* & 5 - *strongly agree*).

**(4) Reliability of the Instrument:** Cronbach's alpha was computed in order to determine the internal consistency of scales. An alpha of 0.739 for 'Online Satisfaction' and 0.728 for 'Online Intention' respectively was observed. Reliability scales were acceptable, as the threshold value of 0.7 was exceeded (Nunnally, 1978).

## Analysis and Results

**(1) Demographic Profile of the Respondents :** The Table 1 explains the demographic profile of the respondents. Out of 729 respondents using the Internet, majority of them (i.e., around 79.4%) of them were male and the remaining 20.6% were female. Out of the respondents who booked train tickets online, around 20% were female and 80% were male ; 10% of the respondents were the people who worked for the government sector ; 70% of the

**Table 1. Demographic Profile of the Respondents**

Demographic Variable	Internet Users		Online Booking Users		
	(Nos)	%	(Nos)	%	
<b>Age</b>	Below 20 years	15	2.1	10	1.9
	20-30 years	447	61.3	305	59.3
	31-50 years	246	33.7	188	36.6
	Above 50 years	21	2.9	11	2.1
	Total	729	100	514	100
<b>Gender</b>	Male	582	79.4	416	80.9
	Female	147	20.6	98	19.1
	Total	729	100	514	100
<b>Profession</b>	Government	72	9.9	53	10.3
	Private	519	71.2	371	72.2
	Self Employed / Business	138	18.9	90	17.5
	Total	729	100	514	100
<b>Highest Qualification</b>	Under Graduate	67	9.2	24	4.7
	Graduate	256	35.1	166	32.3
	Post Graduation & above	406	55.7	324	63.0
Total	729	100	514	100	
<b>Income Levels (in ₹)</b>	Below 20000	292	40.1	165	32.1
	20,000 to 50000	304	41.7	236	45.9
	Above 50,000	133	18.2	113	22.0
	Total	729	100	514	100
<b>Position in the Organization</b>	Lower or Junior Level	153	21	94	22.2
	Middle level	358	49.1	270	63.7
	Senior Level	80	11	60	14.1
	Total	591	81.1	424	100
<b>Software Professional</b>	Software professional	128	17.6	98	23.1
	Non-Software Professional	463	63.5	326	76.9
	Total	591	81.1	424	100
<b>Net Connection at Home</b>	Yes	526	72.2	401	78.0
	No	203	27.8	113	22.0
	Total	729	100	514	100

respondents were from the private sector ; whereas nearly 20% of the same were self employed. It can be inferred that out of 514 respondents who used the Internet for booking tickets online, people working with the government, private, and self-employed were in the percentages of 10.3%, 72.2%, and 17.5%, respectively.

Those respondents who were employed and held lower level, middle level, and senior level positions in the organizations were 22.2%, 63.7%, and 14.1%, respectively. Of those who worked (80.2% were employed), nearly 17% of them were software professionals and the remaining 63% were non-software professionals. Also, out of 424 respondents who booked train tickets online, there were 98 software professionals and the remaining 326 were non-software professionals. Respondents with highest educational qualifications comprised of 55.7% of the total sample (post graduation and above) ; 35.1% of the respondents were graduates ; and under-graduates were 9.2%.



Post graduates who booked train tickets online were about 63%; whereas, in case of graduates, this figure was 32.3% and the percentage of under-graduates stood at 4.7%. The respondents who fell in the income group of earning above 50k per month were 18.2%; 41.7% of the respondents earned between 20k - 50k ; and 40.1% of the respondents fell in the income category of earning below 20k per month. Online booking of train tickets was high in the respondent group who earned between 20k - 50k per month (45.9%).

Respondents used Internet across different mediums and the sample consisted of 72% Internet connections at home, though they used Internet more at office, Internet café than at home (i.e., 60.1%, 72.4%, and 47.8%, respectively) and of course, very less via mobile (7%).

**(2) Predicting Power of Demographics :** An attempt was made to understand the predicting power of demographics on actual online booking practice of train tickets by considering 'book online' as the dependent variable. Logistic regression was used for identifying the best predicting variable among the five demographic variables - age, income, educational qualification, profession, and gender. The following are the results of logistic regression.

**Table 2. Predictive Ability of the Model Proposed**

Observed		Predicted			
		book online or via traditional channel		%	
		NOT BOOK ONLINE	BOOK ONLINE	Correct	
Step 0	book online or via traditional channel	NOT BOOK ONLINE	0	215	.0
		BOOK ONLINE	0	514	100.0
Overall Percentage					70.5

a. Constant is included in the model.

b. The cut value is .500

**Table 3. Indication of Demographics' Reference**

		Frequency	Parameter Coding		
			(1)	(2)	(3)
<b>Age</b>	Below 20 years	15	.000	.000	.000
	20-30 years	447	1.000	.000	.000
	31-50 years	246	.000	1.000	.000
	Above 50 years	21	.000	.000	1.000
<b>Income per month (in ₹)</b>	Below 20000	292	.000	.000	
	20,000 to 50000	304	1.000	.000	
	Above 50,000	133	.000	1.000	
<b>Profession</b>	Government	72	1.000	.000	
	Private	519	.000	1.000	
	Self Employed / Business	138	.000	.000	
<b>Highest Educational Qualification</b>	Under Graduate	67	.000	.000	
	Graduate	256	1.000	.000	
	Post Graduation & above	406	.000	1.000	
<b>Gender</b>	Male	582	.000		
	Female	147	1.000		

**Table 4. Tests Indicating Model Fit**

		Chi-square	df	Sig.
Step 1	Step	101.397	10	.000
	Block	101.397	10	.000
	Model	101.397	10	.000

**Table 5. Model Summary**

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	782.883 <sup>a</sup>	.130	.185

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

**Table 6. Results of Hosmer and Lemeshow Test**

Step	Chi-square	df	Sig.
1	12.679	8	.123

**Table 7. Contingency Table Explaining the Expected Outcome with Reference to Observed Ones**

		book online or via traditional channel = NOT BOOK ONLINE		book online or via traditional channel = BOOK ONLINE		Total
		Observed	Expected	Observed	Expected	
Step 1	1	52	46.073	18	23.927	70
	2	40	45.161	57	51.839	97
	3	19	27.195	50	41.805	69
	4	31	30.152	68	68.848	99
	5	23	20.039	55	57.961	78
	6	22	16.014	54	59.986	76
	7	10	8.655	45	46.345	55
	8	8	10.537	67	64.463	75
	9	8	7.526	61	61.474	69
	10	2	3.649	<b>39</b>	<b>37.351</b>	41

The Table 2 (Block 0: beginning block) gives an idea about if there were no predictive variables for us to make the prediction, the model predictive ability would be around 70.5% accurate, indicating that the model is a better one.

Here, in parameter coding (Table 3), the reference category considered is below 20 years with respect to the variable - age. Likewise, with respect to profession, self employed/business category is considered to be a reference parameter. With respect to gender, male is considered to be a reference category, indicating Gender(1) as female.

**(i) Proposed Model Significance :** The omnibus tests of model coefficients are used to check that the new model (with explanatory variables included) is an improvement over the baseline model. Here, the model is significant as the  $p$  - value is less than 0.05 (Table 4), that is, the predictive variables are going to do a good job in predicting the outcome, that is, book online or not book online. The omnibus tests look at the model and compare the null hypotheses model. Here, the  $p$  - values are less than 0.05, indicating that the model is a better fit with the data.



The Table 5 and Table 6 show the model summary and the results of Hosmer and Lemeshow test of the goodness to fit, respectively and both of them suggest that the model is a good fit to the data as  $p = 0.123 (>0.05)$ , indicating that the predictive ability of the model is better.

Here, the closer the observed responses are with the expected responses, the more accurate is the model. The results in the Table 7 explain how best the model can predict the expected responses and it indicates that the observed responses of respondents who booked train tickets online is 39 and our model predicts 37.3, which is very close to indicating the expected responses. Thus, this model is good as it predicts 37 out of every 39 subjects correctly. Hence, the model proposed is a good one.

**(ii) Classification Table of Proposed Logistic Regression Model:** The Table 8 indicates how good our model is in predicting the actual outcomes. Here, the model is able to predict up to 74.6% of the actual outcomes. This means that almost 75% of the outcomes are correctly predicted by our model. This is better than the no hypotheses model or base line model (when no predictive variables are available) which gave 70% accuracy and it was classifying only the book online category consumers. But here, this model classifies both the book online as well as not book online cases 75% accurately. Hence, this model is an improvement on the baseline model.

**Table 8. Classification Table for Online and Offline Booking of Train Tickets**

Observed		Predicted			
		book online or via traditional channel		%	
		NOT BOOK ONLINE	BOOK ONLINE	Correct	
Step 0	book online or via traditional channel	NOT BOOK ONLINE	62	153	28.8
		BOOK ONLINE	32	482	93.3
Overall Percentage					74.6

**(iii) Predicting Capability of Demographics for Online Booking of Train Tickets :** The predicting capability of the demographics categorized is shown in the Table 9.

It is observed that the main effect for the items - gender, educational qualification, and income are statistically significant.

Age and profession are not found to be statistically significant. The same has been proved while the chi-square test was carried out to identify the relationship between age, profession, and online intention of purchasing train tickets online.

Here, Gender (1) refers to the female category which is found to be significant. Though gender is found to be significant, it explains that it is 0.5 times (50%) more likely for women to book train tickets online than men. Among the Internet users, women are more likely to use the Internet for booking train tickets than men.

Eduqual (1) and Eduqual (2) refer to graduates and post-graduates, respectively, which is found to be significant. It means that if the consumer is a graduate, it is three times likely that the consumer booked train tickets online, and if the consumer is a post-graduate, it is six times likely that the consumer booked train tickets online than an under-graduate. Hence, this indicates that higher the educational level, the higher is the acceptance of online technology while booking train tickets.

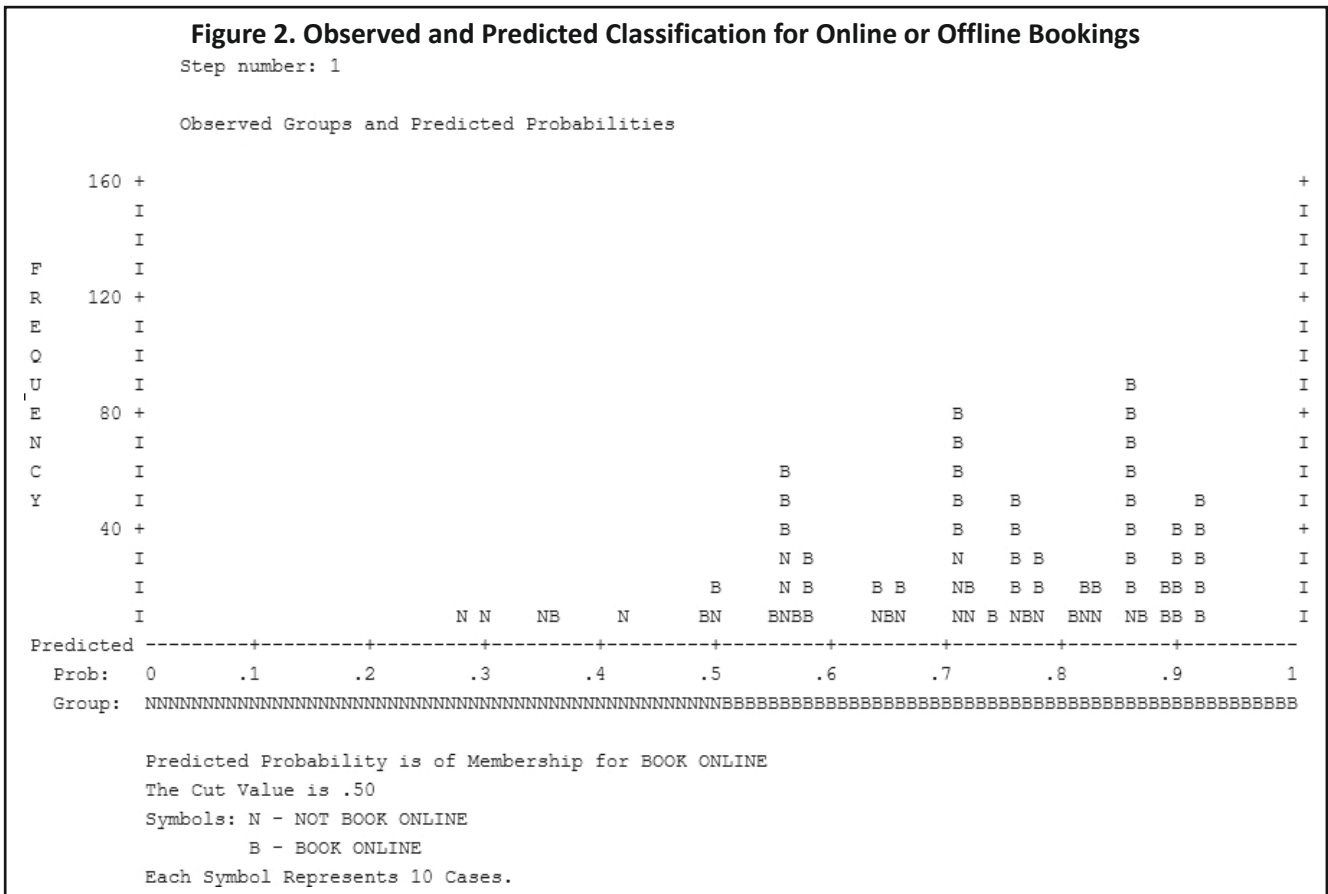
Income(1) and Income(2) refer to income group below 20k - 50k per month and 50k & above per month, respectively. It is observed that for the consumers who were in the income group 50k & above, it is three times likely that they booked train tickets online than consumers who were in the income group of < 20k. Whereas, with income below 20k - 50k per month, it is 2.5 times likely that the consumer booked train tickets online as compared to consumers' with income of < 20k.

For a model to be good at predicting the outcome of individual cases, we should see a bunch of observations

**Table 9. Demographics' Likelihood in Predicting Online Ticket Booking Usage**

	B	S.E.	Wald	Df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
gender(1)	-.556	.217	6.569	1	.010	.574	.375	.877
age			7.406	3	.060			
age(1)	-.506	.606	.697	1	.404	.603	.184	1.977
age(2)	-.175	.615	.081	1	.776	.839	.252	2.801
age(3)	-1.397	.763	3.353	1	.067	.247	.055	1.103
Step 1 <sup>a</sup> profession			1.085	2	.581			
profession(1)	.225	.352	.407	1	.523	1.252	.628	2.497
profession(2)	.234	.227	1.056	1	.304	1.263	.809	1.973
eduqual			37.965	2	.000			
eduqual(1)	1.174	.302	15.156	1	.000	<b>3.236</b>	1.792	5.845
eduqual(2)	1.842	.307	35.946	1	.000	<b>6.308</b>	3.454	11.517
income			28.350	2	.000			
income(1)	.923	.193	22.808	1	.000	<b>2.516</b>	1.723	3.674
income(2)	1.118	.301	13.818	1	.000	<b>3.059</b>	1.696	5.514
Constant	-.692	.652	1.127	1	.289	.500		

a. Variable(s) entered on step 1: gender, age, profession, eduqual, income.



**Table 10. Results of Hypotheses Testing**

Hypotheses	<i>p</i> - value	Yes - Associated/No - Not associated
H01 - Accepted	0.217	NO Association
H02 - Rejected	0.012	YES
H03 - Rejected	0.000	YES
H04 - Accepted	0.170	NO Association
H05 - Accepted	0.846	NO Association
H06 - Rejected	0.015	YES
H07 - Accepted	0.167	NO Association
H08 - Rejected	0.020	YES
H09 - Accepted	0.684	NO Association
H010 - Accepted	.095	NO Association
H011 - Accepted	0.131	NO Association
H012 - Accepted	0.558	NO Association
H013 - Rejected	0.014	YES
H014 - Rejected	0.017	YES

towards the left and right ends of the graph. As we see the classification plot in Figure 2, a lot of cases actually are skewed towards the right side area of the plot, that is, the model is predicting a probability of around 0.75 to 0.8 for 'book online'.

While the model identifies that gender, income, and education qualification are significantly associated with online booking, they may not predict the outcome for individual cases that accurately (that is where we observe 'N' in probability group 'B').

There can be substantial individual variability that cannot be explained by income, gender, and education qualification, and we might expect that this reflects individual factors like consumers' effort to learn, take effort, familiarity with online usage, etc.

**(iv) Association of Demographics with Online Intention to Purchase Tickets and Satisfaction with Online Booking of Tickets :** Association of demographics with online intention to purchase tickets and satisfaction with online booking of tickets is depicted in the Table 10. When the results of association of demographics with online intention are interpreted, it is found that income, gender, and educational qualifications have an association with online purchase intention. But the other demographics like profession, software profession, age, and position in the organization are found to have no association with online purchase intention of train tickets.

With reference to satisfaction from online purchase of train tickets, it is found that age, income, position in the organization are found to have an association as their *p* - values are less than 0.05. There are other demographics like gender, profession, qualification, and whether the respondent is a software professional - these are found to be insignificant ( $p > .05$ ) with reference to satisfaction from online purchase of train tickets.

The results of the hypotheses testing indicate that if a respondent is a software professional or is engaged in any other profession/gender, it does not influence the satisfaction from online purchase of train tickets, and the same is also found to be insignificant with online adoption/ intention while booking train tickets. This is to indicate that except income, other demographic variables show varied influences across trail, initial adoption (intention), and repeat usage (online satisfaction).

## Discussion and Conclusion

It is understood from the interpretation that demographics like - income, gender, and educational qualification have an association with online intention to purchase train tickets ; whereas, demographics like age, income, position in the organization have a positive association with satisfaction while purchasing train tickets online. One of the prominent results this study reveals is that profession is found to be insignificant in predicting whether the consumers used the online channel for booking train tickets, though it was presumed that people who work as software professionals or the type of profession could influence online booking of train tickets, and this is proved wrong. Also, the age of the consumer is identified to have no influence on online booking of train tickets. This is in line with the results obtained by Dahiya (2012). As per the study of Dahiya (2012), online shopping intention across various categories of products/services were considered, and it was found that gender impacted the frequency of online shopping, and family size impacted overall spending on online purchases. Dahiya's (2012) study is similar to the present study except that Dahiya (2012) indicated that 'education' did not impact online purchase intention. The reason for this difference in the results can be attributed to the respondents' profile (having credit cards & minimum qualification as graduation were considered). A study by Sultana and Henrichs (2000) indicated that income of the consumer was positively related to the intention to adopt the online channel for shopping.

When compared with men, women are more likely to book train tickets online, indicating that the female population is catching up faster than the male population when it comes to using the online medium for booking train tickets. This result of women being more active in adopting the online channel was proved by Al-Ghaith et al.(2010), which supports the present study's results. The same was identified by Pew Research Centre (2001) and the report indicated that the number of men who bought online (42%) was less than the number of women (58%) by 16%. Also, among male shoppers, only 17% reported the online experience as enjoyable, which was less than what was experienced by the female shoppers (37%), indicating that females are more likely to purchase online as compared to males.

Higher the education and income, it is more likely that the consumer uses the online medium for booking train tickets. In the present study, a respondent was identified to have six times likelihood to book train tickets online if the highest qualification was post graduation. This concludes that income, gender, and educational qualification are identified to have a significant predicting power to influence actual booking of train tickets online. These results are in line with the results obtained by Hashim et al. (2009) who found that the demographics - gender, income, and education influenced online shopping behavior. Higher the income and education, higher is the tendency to adopt the online channel for shopping, which is one the main results that is consistent with the present study.

## Managerial Implications

The study would push the managers to think that along with factors like attitude, convenience, website features, etc. (factors which have already been considered in various studies), demographics also influence consumers in adopting the online channel for purchases. Basically, women are more likely to adopt online train ticketing than men, and with higher income and education, there is higher probability of online adoption. Managers can address this segment - women with high income and higher education - and can probably look forward to targeting this segment with more marketing activities, which otherwise has been ignored. Managers need not look at profession or age only while addressing the consumers' intention to book train tickets only ; rather, they should focus more on gender (females more likely), education (higher education more likely), and income (higher income more likely). But when managers are addressing online satisfaction related to purchase intention, age, income, and position in the organization becomes more relevant (people with higher age, higher income, and higher position in the

organization tend to be better satisfied while using online booking of train tickets). Hence, the marketing strategy before/during online usage needs to be framed accordingly. Indian railways need to segment the customers based upon the results that the study witnessed. Based on specific categories of gender, income, education levels, where the likelihood of using online train ticketing is high, segments need to be identified, and appropriate marketing strategies need to be planned and implemented. This would improve the efficiency of the Indian railways system by aptly planning the right kind of resources for the right customer profiles which finally leads to better returns on marketing investment (ROMI).

## Limitations of the Study and Directions for Future Research

One of the limitations for this study is that this study does not consider responses from students, housewives who may also book train tickets online using their family members' credit/debit cards. Less focus was given to non-online users compared to online users and the study was confined to the city of Hyderabad.

The present study can be extended to other geographic locations, especially non-metros where Internet penetration is growing drastically. With the new medium of the Internet usage picking up, future research can be carried out across consumers using the Internet via different channels like smart phones, tablets, etc., and comparison across various channels can bring out more appreciated output for practitioners. This study can be also extended to other travel services as well as online shopping mechanisms in Indian metros/ tier I & II cities where present studies look inadequate.

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