

AN EMPIRICAL STUDY OF CUSTOMERS BEHAVIOUR REGARDING ONLINE SHOPPING

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ABSTRACT

Online shopping have emerged as an important segment of overall development of economy and so far have delivered facilities to the customers. These initiatives would help towards making the market more vibrant ,creative and competitive. Since, the need of study has been aroused in order to see the factor influencing the customers to prefer online shopping in Gujarat.

Hypothesis 1: Mean number of preferences of female and male customers for “preference for online shopping” is same.

Hypothesis 2 :Mean number of preferences of different education group’s customers for “online shopping” is same

We study the comparison of preferences for online shopping of the customer in Gujarat using T-test, ANOVA and post hoc test.

INTRODUCTION

Online shopping, a form of electronic commerce has made customer to directly buy goods & services from a seller over the internet via different form of platform such as web browser from desktop, online shopping applications from play store etc. Sometimes it is also referred as E-commerce which provides transaction of buying or selling. It employs business-to-business buying and selling. Now-a-days, there are many options available for paying up bills. It is seen that some customers uses credit card or a PayPal account in order to make payments, whereas some customers uses cash on delivery option too.

OBJECTIVES OF THE STUDY

The main objectives of the present study are as follows:

1. To develop a profile of customers of Gujarat who purchasers inonline shopping in terms of their demographic.
2. To do detailed frequency analyses of customers of online shopping.
3. To analyzed for male and female customer’s preference of “Online Shopping Reduces Time and travelling expenses and physical limitations”.
4. To find association between gender of customer and their payment method of online shopping
5. Customer’s preference of “Online Shopping Reduces Time consumption, travel expenses and physical limitations

HYPOTHESIS OF THE STUDY

The study is based on the formulation of the following hypotheses:

H₀ :Mean number of preferences of female and male customers' for "preference for online shopping" is same.

H₀ :Mean number of preferences of different education group's customer's for "online shopping" is same.

H₀ : Mean number of preferences for "Consumers find a product of interest by visiting the website of the retailer directly" is the same for all education groups.

H₀ :Mean number of preferences for "Online Shopping Reduces Time consumption, travel expenses and physical limitations" is the same for all education group.

H₀ :There is no association between customer preference and the gender of the customer

METHOD OF DATA COLLECTION:

The study depends on primary data. Questionnaires have been used to collect the needed particulars. Questions related to the objectives have been framed after consulting experts. Based on the information gathered through a pilot study, the structure of the questionnaire has been restructured.

Selection of Sample Customers for Opinion Survey:

This study has attempted to elicit the effect of demographic variables on Customers of the Gujarat who does online shopping. we collected primary data from the customer's living in Gujarat and participated in online shopping during the period Dec 1, 2017 to Jan 28, 2018 through a Structured Questionnaire. At random, a nominal number of 260 customers were identified though it forms an inadequate sample size. Finally their socio economic profiles were examined besides eliciting and analyzing their opinions on the online shopping. Out of the 260 respondents selected, 4 respondents did not respond and the balances of 256 were included in the study. Out of the 256 respondents selected 152 were females and 104 males. They represent different socio-economic backgrounds. All the respondents selected under convenient sampling method were interviewed with a simple questionnaire during the period from Dec 1, 2017 to Jan 28, 2018. We classified customers' education into five groups. Education group details are given in table 1

Table-1: Frequency distribution of Education among the Customers

| EDUCATION | Frequency | Percent |
|--|-----------|---------|
| Master's degree in Arts & Commerce ,sci and more | 31 | 12.10 |
| Arts College grad | 22 | 8.59 |
| Commerce College grad | 40 | 15.62 |
| Science & technology College grad | 68 | 26.56 |
| Hsc and less than Hsc | 28 | 10.93 |
| Total | 256 | 100% |

Source: Primary data

It is observe from table-1 that 12.10% of Custmerss belong to the Master's degree in Arts &Commercescience and more15.62% of Custmerss belong to Commerce College grad group. Maximum percentage of 26.56% belongs to the Science&technology Collegegrad group.

Gender of Respondents:

Gender plays a vital role in on online shopping of Universities that are preferred. In order to understand the influence of gender on online shopping of Universities the researcher has classified gender as male and female. The frequency distribution is presented in the following table-2.

Table-2:Genderamong the customer

| Gender | Frequency | Percent | Cumulative Percent |
|--------|-----------|---------|--------------------|
| Male | 104 | 40.63 | 40.63 |
| Female | 152 | 59.37 | 100.00 |
| Total | 256 | 100 | |

Source: primary data

From the above analysis, it is found that, 40.63% of Customerbelong to the male group and remaining percentage of 59.37% belongs to female group.

Analysis pertaining to find out the comparison of mean number of preferences for “Online Shopping”.

The objective is to find out the comparison of mean number of preferences of **Online Shopping** of male & female respondent customers

Table-3 :Group Statistics

| gender | N | Mean | Std. Deviation | Std. Error Mean |
|----------------------------|-----|--------|----------------|-----------------|
| online_preferenc e Male | 103 | 1.1262 | .33371 | .03288 |
| Femal e | 152 | 2.0000 | .00000 | .00000 |

This statements is given in two points scale which ranges from prefer and not prefer. For this respondents were asked to give points 1=not prefer and 2=prefer

H₀ :Mean number of preferences of female and male customers for “Online Shopping is same.

Table-4:Independent Samples T- Test of preferences of customers for”online shopping”

| Online shopping | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|-----------------------------|---------|---|---------|------------------------------|------|-----------------|-----------------|-----------------------|---|-------|
| | | F | Sig. | T | Df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| Equal variances assumed | 119.039 | .000 | -32.312 | 253 | .000 | -.87379 | .02704 | -.92704 | -.82053 | |
| Equal variances not assumed | | | -26.574 | 102.00 | .000 | .64890 | .03288 | -.93901 | -.80857 | |

Source: computed data

. Levene's Test checks whether the *population* variances of preferences of **On line shopping** for the male & female groups are all equal.. “Sig.” = 0.000<0.05.Hence Null Hypothesis that variances are equal is rejected

From the above table it is found that the t-value -26.5 and significant value(p- value) is 0.p-value is smaller than 0.05.This explains statically significant at 5% level and this indicates that Male and Female Preferences for “**Online Shopping**”is differ significantly.

Comparison for Preferences of customers for “Online Shopping ” among education group.

H₀:Mean number of preferences for “Online Shopping” among different education group is same.

The one way ANOVA is found more appropriate to do Comparison for Preferences of customers for online shopping. The one way ANOVA of preference of “on line shopping” of five education group customers are given in following Table 5.

Table-5:ANOVA Test for Online shopping

| | Sum of Squares | Df | Mean Square | F | Sig. |
|----------------|----------------|-----|-------------|------|------|
| Between Groups | .728 | 4 | .182 | .791 | .532 |
| Within Groups | 57.508 | 251 | .230 | | |
| Total | 58.235 | 255 | | | |

Source: computed data

The preference of **Online Shopping** dose not differed significantly among the five group of education F(4, 251) statistic (=0.791 at 0.05 level of significance). The significant value 0.532 indicates does not differed significantly between education groups.

Association between gender of the customers and their payment method of online shopping

The gender of the customers is of two segmentations, male and female. The two segments are analyzed associating with the three payment preference clusters namely cash on delivery group, debit card group and credit card group are associated through the cross tab method as below

Table-6: Crosstab for groups of **Online Shopping customer** and sex

| Payment method | | | Sex | | Total |
|-----------------------------|------------------|------------------------------|--------|--------|--------|
| | | | Female | Male | |
| Customer of online shopping | Cash on delivery | Count | 37 | 62 | 99 |
| | | % within Customer preference | 14.45% | 24.22% | 38.67% |
| | Debit card | Count | 77 | 19 | 96 |
| | | % within Customer preference | 30.10% | 7.42% | 37.50% |
| | Credit card | Count | 38 | 23 | 61 |
| | | % within Customer preference | 14.84% | 8.98% | 23.83% |
| Total | | Count | 152 | 104 | 256 |
| | | % within Customer preference | 59.38% | 40.63% | 100% |

Source: Computed data

From the above table it is found that 30.10% of cash on delivery group are found to be female gender and it is followed by 24.22% of male gender customer belonging to debit card group and 14.84% of credit card group are female. The nature of association is clearly presented in the following chi square table 5.

H₀: There is no association between customer preference and the gender of the customer

Table-7: Chi-square tests of association for groups of Sex and Online Shopping

| Test Statistic | Value | Df | p-value |
|-----------------------------|--------|----|---------|
| Pearson Chi-square | 37.357 | 2 | 0.000 |
| Likelihood Ratio Chi-square | 38.62 | 2 | 0.000 |

From the above table it is found that chi-square value 37.357, p=0.000 are statistically significant at 5% level. Null hypothesis is rejected. This explains an association between customer preference for online payment and the gender of the customer

Analysis pertaining to find out the comparison of mean number of preferences for “Online Shopping Reduces time consumption, travel expenses and physical limitations,”.

The objective is to find out the comparison of mean number of preferences of **Online Shopping Reduces Time consumption, travel expenses and physical limitations** of different demographic groups of respondent customers. These statements are given in likert five points scale which ranges from strongly

Disagree, Disagree, Undecided, Agree, and strongly Agree. These comparison carried using independent T-test one way ANOVA and Tukey post hoc test.

Comparison for preferences of male and female customers for “Online Shopping Reduces Time consumption, travel expenses and physical limitations”.

In this section ,we analyzed for male and female customers’ preference of “**Online Shopping Reduces Time consumption, travel expenses and physical limitations**” .For this respondents were asked to give points ,based on 5 point Likert scale namely strongly disagree ,Disagree, Undecided , Agree, strongly Agree, giving 1,2,3,4 and5. Group statistics of preference of “OSRTTP” of male and female customers are given in following Table .

H0 :Mean number of preferences of female and male customers for “Online Shopping Reduces Time consumption, travel expenses and physical limitations” is same.

Table-8:Group Statistics of male and female customers’ preferences of “OSRTTP”

| Gender | N | Mean | Std. Deviation | Std. Error Mean |
|---------------|-----|--------|----------------|-----------------|
| OSRTTP Male | 104 | 3.2816 | 1.30171 | .12826 |
| OSRTTP Female | 152 | 2.6327 | 1.19978 | .09896 |

Source: computed data

Based on the preferences of OSRTTP, preference of male customers of OSRTTP produced the high mean score (mean=3.2816) and standard deviation1.30171, followedby the mean preference of female customers of OSRTTP (mean=2.6327) and standard deviation 1.19978.

Table-9:Independent Samples T- Test of preferences of customers for” OSRTTP”

| OSRTTP | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|-----------------------------|-------|---|-------|------------------------------|------|-----------------|-----------------|-----------------------|---|-------|
| | | F | Sig. | T | Df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| Equal variances assumed | 2.387 | .124 | 4.064 | 254 | .000 | .64890 | .15969 | .33439 | .96341 | |
| Equal variances not assumed | | | 4.006 | 254 | .000 | .64890 | .16200 | .32953 | .96827 | |

Source: computed data

Expenses and physical limitations (OSRTTP)” differ significantly.Levене’s Test checks whether the *population* variances of preferences of OSRTTP for the male & female groups are all equal,

which is a requirement for ANOVA. “Sig.” = $0.000 < 0.05$. Hence Null Hypothesis that variances are equal is rejected.

From the above table it is found that the t-value 4.006 and significant value (p-value) is 0. p-value is smaller than 0.05. This explains statically significant at 5% level and this indicates that Male and Female Preferences for “**Online Shopping Reduces Time consumption, travel**

Comparison for Preferences of customers for “**Online Shopping Reduces Time consumption, travel expenses and physical limitations (OSRTTP)**” among education group.

H₀: Mean number of preferences for “Online Shopping Reduces Time consumption, travel expenses and physical limitations” is the same for education group.

In this section, we analyzed for five education group customers’ preference of “**Online Shopping Reduces Time consumption, travel expenses and physical limitations**”. For this respondents were asked to give points, based on 5 point Likert scale namely strongly disagree, Disagree, Undecided, Agree, strongly Agree, giving 1, 2, 3, 4 and 5.

The one way ANOVA is found more appropriate to do Comparison for Preferences of customers for OSRTTP. The one way ANOVA of preference of “OSRTTP” of five education group customers are given in

Table-10: ANOVA Test for OSRTTP

| | Sum of Squares | Df | Mean Square | F | Sig. |
|----------------|----------------|-----|-------------|------|------|
| Between Groups | 5.384 | 4 | 1.346 | .818 | .515 |
| Within Groups | 403.116 | 251 | 1.645 | | |
| Total | 408.500 | 255 | | | |

Source: computed data

The preference of **Online Shopping Reduces Time consumption, travel expenses and physical limitations** of customers does not differ significantly among the five group of education F(4, 251) statistic (=0.818 at 0.05 level of significance). The significant value 0.515 indicates does not differ significantly between education groups.

The Tukey post hoc tests results indicated that the preference of **Online Shopping Reduces Time consumption, travel expenses and physical limitations** of customers of one education group does not differ significantly from any other education group. There does not significant differences existed between the preferences of **Online Shopping Reduces Time consumption, travel expenses and physical limitations** of customers among education group.

H₀: Mean number of preferences for “Consumers find a product of interest by visiting the website of the retailer directly” is the same for all education groups

Table-11: Multiple Comparisons of “Consumers find a product of interest by visiting the website of the retailer directly (PI)” among Education group using Tukey Post Hoc Test

| (I) Education category | (J) Education category | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|--|------------------------|-----------------------|------------|------|-------------------------|-------------|
| | | | | | Lower Bound | Upper Bound |
| Science & technology College grad (1) | 2 | -.42149 | .18318 | .148 | -.9249 | .0819 |
| | 3 | -.15833 | .21464 | .947 | -.7482 | .4315 |
| | 4 | -1.55833* | .22146 | .000 | -2.1669 | -.9497 |
| | 5 | -2.04924* | .26633 | .000 | -2.7812 | -1.3173 |
| Arts College grad (2) | 1 | .42149 | .18318 | .148 | -.0819 | .9249 |
| | 3 | .26316 | .18719 | .625 | -.2513 | .7776 |
| | 4 | -1.13684* | .19497 | .000 | -1.6727 | -.6010 |
| | 5 | -1.62775* | .24475 | .000 | -2.3004 | -.9551 |
| Commerce College grad (3) | 1 | .15833 | .21464 | .947 | -.4315 | .7482 |
| | 2 | -.26316 | .18719 | .625 | -.7776 | .2513 |
| | 4 | -1.40000* | .22479 | .000 | -2.0178 | -.7822 |
| | 5 | -1.89091* | .26910 | .000 | -2.6305 | -1.1514 |
| Hsc and less than Hsc(4) | 1 | 1.55833* | .22146 | .000 | .9497 | 2.1669 |
| | 2 | 1.13684* | .19497 | .000 | .6010 | 1.6727 |
| | 3 | 1.40000* | .22479 | .000 | .7822 | 2.0178 |
| | 5 | -.49091 | .27457 | .383 | -1.2455 | .2637 |
| Master's degree in Arts & commerce Sci and more(5) | 1 | 2.04924* | .26633 | .000 | 1.3173 | 2.7812 |
| | 2 | 1.62775* | .24475 | .000 | .9551 | 2.3004 |
| | 3 | 1.89091* | .26910 | .000 | 1.1514 | 2.6305 |
| | 4 | .49091 | .27457 | .383 | -.2637 | 1.2455 |

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

- The mean preference of PI of customers of Arts College graded education group differed significantly from Master's degree in Science & technology & Master's degree in Arts & Commerce education groups at 5% significant level.
- The mean preference of PI of customers of some college education group differed significantly from Master's degree in Science & technology & Master's degree in Arts & Commerce education groups at 5% significant level.
- The mean preference of PI of customers of Master's degree in Science & technology (4) education group differed significantly from 1 Science & technology College grad, 2 Arts College grad (2), 3 Commerce College grad & 5 Master's degree in Arts & Commerce education groups at 5% significant level.
- The mean preference of PI of customers of Master's degree in Arts & Commerce education group differed significantly from Science & technology College grad, Arts College grad, Commerce College grad & Master's degree in Science & technology education groups at 5% significant level.

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