A Study on Understanding the Impact of Online Channels in Purchase Of Smartphones.

Mr. Desai Keyur
Student, Rustomjee Business School.

ABSTRACT

The report consists of research on spending of consumers to purchase smartphones online. It focuses on presenting the changing trends in online purchasing of smartphones in particular by the urban youth. It highlights the average amount spent on purchasing a smartphone online, the percent of preference of buying a smartphone online and whether online purchasing is dependent on education. Both smartphones and e-commerce are rapidly growing and highly competitive markets. The survey was conducted through online survey site “Question Pro.” Majority of the respondents were based in the city of Mumbai.

INTRODUCTION:

E-commerce websites are the in thing nowadays. More and more people prefer online platform to purchase products. With increasing penetration of internet and smartphones it is important to study its dynamics. India is booming economy and a young nation with more than 60% of the population being under the age of 30 so a lot of youngsters are using online platform to purchase their smartphones. Smartphones have captivated everyone with their ability to make things simpler. Smartphones has become a necessity nowadays. People prefer different places to buy their smartphones; some people prefer buying from a shop or from a retail outlet while others prefer buying it online. Online shopping portals have been here as early as 1979, but expanded in the late 90s and early 2000s with the boom of internet available to the masses.

In India, it has been very recently introduced. Flipkart established in 2007 by two brothers Sachem & Binny Bansal was the beginning of the online purchasing phenomenon in India. Since then numerous players have entered the market and have made it one of the fastest growing industries with more than $30 billion in revenues. India is expected to reach $100 billion in revenue from online sales. With so much of growth and dynamism it is an important sector to study about. In the similar manner smartphones is another important sector which has seen unprecedented growth over the period. India is only the 2nd largest market for smartphones in the world after China and is expected to overtake soon. As also is the internet penetration increasing rapidly. India has the 3rd highest internet user base in the world after China & the US. Both these sectors coupled with the internet penetration make it an important area of study. With the
government’s pilot project of “Digital India” in focus, this research would give considerable outlook for the same.

The big players in the e-commerce industry are Flipkart, Amazon India, Snapdeal, Paytm etc. Flipkart is the market leader in the country with Amazon at no. 2. The others also form a considerable part of the market. It is estimated that the number of people expected to purchase from an online portal is going to grow at 15% every year.

Similarly, the players in the smartphone market are Samsung, Micromax, Motorola, Lenovo, Apple & others. Samsung is the fore runner followed by Micromax. Apple is slowly gaining momentum, especially in the metro cities.

LITERATURE REVIEW:

From being the device and gadget of sophistication and luxury, smartphones have gone to become a huge based phenomenon in the Indian Mobile industry. The numbers are self-explanatory. There are more than 27 million smartphone users in the urban areas of the country. The numbers are higher in the metros which are large and have a population of more than 4 million with 1 smartphone user amongst 10 mobile users. Interestingly, even in smaller cities where the population is between 1-10 Lakhs, the figures stand impressive 6%. These are the findings of the study “Smartphone Incidence in Urban India”, (Nielsen Informate Mobile Insights).

Firms operating in this segment sell their goods and services to consumers via website. These online stores are important and sometimes highly visible representatives of the ‘new economy’, yet despite this, they do not enjoy much sound conceptual and empirical research (Hoffman & Novak, 1996; Alba et al., 1997). An increased understanding of online consumer behavior can benefit them in their efforts to market and sell products online. A number of general frameworks in consumer behavior are available that capture the decision-making processes of consumers (Engel et al., 1995; Schiffman & Kanuk, 2000). Researchers have long been studying how consumers search for information about products and how useful technology can be acquire this information (Stigler, 1961; Thorelli & Engledow, 1980; Keller & Staelin, 1987; Widing & Talarzyk, 1993; Moorthy et al., 1997).

RESEARCH OBJECTIVE:

“To study the impacts of online channels in purchase of smartphones.”

One of the main objectives of this study was to find out how much is person willing to spend over a smartphone while purchasing online. We derive that from their ideal budget to spend from the responses received. Another objective of the study was to understand the preference for online shopping over offline i.e. from a retail shop or an electronic outlet. Since, the introductions of online shopping more and more people are using it as a medium to purchase products. Even if not purchase, they take it as a reference point or visit the portals at least once. The number of people who prefer online purchase is independent of their education level. We feel that education level doesn’t influence behavior to purchase smartphones online. We wanted to know if people with basic education preferred buying smartphones online.
RESEARCH METHODOLOGY:

The methodology used to make inferences was primary as well as secondary data.

Primary Data:

Primary data was collected through sampling on the basis of age, education, income groups and occupation. Most of the respondents were limited to the age of 35 and below since we were studying the purchase pattern amongst youth. The data was collected by means of a questionnaire which was circulated via e-mail and social networking sites like WhatsApp. The objective was clearly defined in the introduction of the survey so as to give a clear understanding of the purpose of the survey to the respondents. All data collected was done at free will by the respondents.

Secondary Data:

Secondary data was derived from internet based sources and a few journals on e-commerce websites available on the internet. We visited different websites for data and use similar surveys as a point of reference.

Sample Design & Sample Size:

Sample Design: Quantitative data was collected by means of questionnaire based on
- Differences in gender.
- Differences in income groups.
- Differences in education level.
- Differences in age.
- Differences in preferences.

Sample Size:

The sample size is 67. All the data was collected from urban youth so as to understand their buying behavior.

Descriptive Statistics:
Most of the respondents were students so the income parity can be fairly seen. Majority of them being under the income group of 0-2.5 lakhs.

The age group was dominated by those between the ages of 16-30 years. Decision to purchase a smartphone online would be independent but their decision is largely dependent on their parents.

Students formed majority of the respondents, followed by service and then those self-employed. It covered a decent. This is the age of being easily influenced by social media. It also has a

The survey had almost equal responses from men & women. It was equally represented by both genders. Hence, it is not biased.
Hypothesis 1: Understanding the average amount spent on a smart phone.

Ho: The average amount spent on online purchase of a smart phone is RS 18,000/-

Ha: The average amount spent on online purchase of smart phones is not RS 18,000/-

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>Alternate Hypothesis</th>
<th>No. of tails</th>
<th>Type of test</th>
<th>Alpha</th>
<th>Probability</th>
<th>t-critical</th>
<th>t-observed</th>
<th>X'</th>
<th>N</th>
<th>μ</th>
<th>σ</th>
<th>X'-μ</th>
<th>σ/sqrt(n)</th>
<th>df</th>
<th>t Stat</th>
<th>P(T&lt;=t) one-tail</th>
<th>t Critical one-tail</th>
<th>P(T&lt;=t) two-tail</th>
<th>t Critical two-tail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ho µ = 17,500</td>
<td>Ha µ ≠ 17,500</td>
<td>Two Tail</td>
<td>T- Test</td>
<td>0.01</td>
<td></td>
<td>2.45</td>
<td>(0.09)</td>
<td>17,142</td>
<td>7</td>
<td>17,500</td>
<td>10,250</td>
<td>3,874</td>
<td>0.09</td>
<td>6.00</td>
<td>(0.09)</td>
<td>0.46</td>
<td>1.94</td>
<td>0.93</td>
<td>2.45</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

t-Test: Paired Two Sample for Means

\[
t = \frac{(x' - \mu)}{\sigma/\sqrt{n}}
\]

\[
x' = 17,142, \quad \mu = 17,500, \quad \sigma = 10,250
\]

Decision: Failed to Reject the Null

Remarks: The test proves that the average amount to purchase a smartphone online is Rs. 17,500 or at least near to it.

Suggestions: It can be suggested that to increase the average spending on smartphone e-commerce websites can have exclusive contracts with smartphones companies for e.g. availability of a particular model is exclusively available online for the first few months of its launch.
Hypothesis 2: Understanding the preference for online purchase of smartphones.

Ho: Less than 45% of the population buys smartphones online.

Ha: Less than 45% of the population does not buy smartphones online.

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>Alternate Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>HO: p ≥ 60%</td>
<td>HA: p &lt; 60%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. of Tails</th>
<th>Type of Tail</th>
<th>Alpha</th>
<th>Probability</th>
<th>p-Critical</th>
<th>p-Observed</th>
<th>P-Value</th>
<th>Alpha</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left Tail</td>
<td>P Test</td>
<td>0.05</td>
<td>0.05</td>
<td>(1.64)</td>
<td>(2.20)</td>
<td>0.01</td>
<td>0.05</td>
<td>Failed to reject the null.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>p'</th>
<th>q (1-p)</th>
<th>n</th>
<th>(1.64)</th>
<th>(0.20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>46.83</td>
<td>40</td>
<td>67</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*Remarks:*

The hypothesis proves that less than 60% of the population prefers purchasing smartphones online. This shows that still a lot of people prefer buying from retail shops or electronic megastores. It can be inferred that since most of the respondents are students the final decision still remains with their parents who might still want to buy the old way.

*Suggestions:*

From the above test it can be suggested that since people are not yet open to purchase smartphones online. E-commerce companies can focus on deriving trust of the older generation which is skeptical of purchasing online. Methods to make it more trustworthy and user friendly can help increase revenues and online buying.
Hypothesis 3: To understand whether online purchase of smartphones is independent of education.

Ho: Online purchase of smartphones is independent of education.

Ha: Online purchase of smartphones is not independent of education.

<table>
<thead>
<tr>
<th>Observed Data</th>
<th>Preference/Education</th>
<th>Graduate</th>
<th>Higher Secondary</th>
<th>Post Graduate</th>
<th>Grand Total</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td></td>
<td>12</td>
<td>3</td>
<td>5</td>
<td>20</td>
<td>30%</td>
</tr>
<tr>
<td>Never</td>
<td></td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>10</td>
<td>15%</td>
</tr>
<tr>
<td>Sometimes</td>
<td></td>
<td>22</td>
<td>6</td>
<td>9</td>
<td>37</td>
<td>55%</td>
</tr>
<tr>
<td>Grand Total</td>
<td></td>
<td>38</td>
<td>11</td>
<td>18</td>
<td>67</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expected Data</th>
<th>Preference/Education</th>
<th>Graduate</th>
<th>Higher Secondary</th>
<th>Post Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td></td>
<td>11.34</td>
<td>3.28</td>
<td>5.37</td>
</tr>
<tr>
<td>Never</td>
<td></td>
<td>5.67</td>
<td>1.64</td>
<td>2.69</td>
</tr>
<tr>
<td>Sometimes</td>
<td></td>
<td>12.15</td>
<td>3.31</td>
<td>4.97</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(fo-fe)^2/fe</th>
<th>Preference/Education</th>
<th>Graduate</th>
<th>Higher Secondary</th>
<th>Post Graduate</th>
<th>Observed Chi-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td></td>
<td>0.04</td>
<td>0.02</td>
<td>0.03</td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td></td>
<td>0.49</td>
<td>0.08</td>
<td>0.64</td>
<td></td>
</tr>
<tr>
<td>Sometimes</td>
<td></td>
<td>7.99</td>
<td>2.18</td>
<td>3.27</td>
<td>14.73</td>
</tr>
</tbody>
</table>

Null Hypothesis: H₀: Online purchase of smartphones is independent of education
Alternate Hypothesis: Hₐ: Online purchase of smartphones is NOT independent of education

No. of Tails: Right-Tail test
Type of Test: Chi-squared test
Alpha: 0.01
P: 0.01
Critical: 13.28

Observed: 14.73

D: Reject the null
LIMITATIONS:

1. The coverage of the data was limited to urban areas.
2. The sample size was very small to represent entire population.
3. The genuineness of the data is dependent on the respondents. They might have not been completely honest.

CONCLUSION:

1. Consumers spend Rs.17,500 on an average while purchasing a smartphone online. It shows that there is decent amount spent on purchasing smartphones online. But it has a lot more scope since we see today the standard of living of people is increasing.

2. Less than 60% of the population prefers shopping online for smartphones. This also shows that a fair share of population is moving towards purchasing smartphones online. But looking at the current scenario where the internet penetration is increasing so is the availability of computer devices.

3. Online purchase of smartphones is independent of education. Since most of the population covered in the survey is made up of students, the test shows that it is not independent. The reason for this could be that the final call to purchase a smartphone still lies with parents.

REFERENCES:

http://research-methodology.net/a-brief-literature-review-on-consumer-buying-behaviour
http://www.essay.uk.com/essays/marketing/research-proposal
http://research-methodology.net/research-methods/research-limitations
http://dissertation.laerd.com
http://www.emeraldinsight.com
http://iosrjournals.org
http://www.slideshare.net/vibhoragarwal9693/a-project-report-on-a-study-on-consumer-buying-behavior-towards-smartphone
http://www.slideshare.net/jenishsopariwala/consume