Analyzing the purchase intentions of Smartphone: A Descriptive Study

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Abstract

Previous studies revealed that the behavior of the customer while purchasing a smartphone is influenced by various factors. These factors may be the features of the phone or external factors arising out of the offers from retail stores. The present study aspires to investigate if there is any significant relation between the perceptions of educated customers taking into consideration the factors (Price, Advertisements, offers in retail stores, Add-on accessories given and After Sales Service) which largely influence the consumer's choice while purchase of Smartphone. A structured questionnaire, on a 5-Point likert Scale, developed from previous studies was employed for acquiring data. A sample of 381 respondents was selected for the survey, using nonprobability sampling technique. The Sample is a mix of students and professionals from Rural and Urban locality of Andhra Pradesh and Telangana

Keywords: Purchase Intentions, Smart Phone, Education levels, Price, Advertisements, and Offers in Retail Stores, Add-on Accessories, and After Sales service of Smartphone.

I. Introduction

These days, in the ever-changing high-tech world, use of smart phones have turned out to be very common for various purposes, that too among students and young professionals in particular. This is because of its distinct features and ease of operation which are nonexistent in conventional mobile phone. Currently, mobile phones are becoming smarter every day, thanks to the introduction of new technologies and new features. In fact, Mobiles have turned into a mini-computer that can be carried in your pocket and used at any place and at any time. With a smartphone at hand, one can not only make calls and send messages to others, but
also can make use of the Internet and connect to various social networks such as Facebook, WeChat, Instagram, Twitter, WhatsApp and so on. The use of audio and video facilities in chatting applications has become the thing of the day these days. These features basically create a great level of distinction between a conventional mobile phone and Smartphone. As the use of Smartphone is becoming easier and more user-friendly, there is an increasing number of consumers interested in shifting to smartphones.

II. Literature Review

The study presented here tries to seek out some factors that have an influence on consumer's intention to buy Smartphone. As per (Moschis, 1976), “Consumer behavior is full of voluminous variables starting with needs, attitudes and factors that create personal motivations, personality characteristics, socioeconomic and cultural background of customers, age and several social effect sof varied sorts exercised by friends, family members, colleagues and society as a whole [XII].” Numerous factors which influence the consumer's purchase intention while buying Smartphone are found upon examining the relevant literature.

The current study adopted price, advertisements, and offers in retail stores, Add-on Accessories provided and after sales service as some of the factors that influence the customer purchase intentions while purchasing a smart phone.

Price according to most of the researchers (Qun, Howe, Thai, Wen and Kheng, 2012; Ibrahim, Subari, Kasim & Mohammad, 2014; Lay-Yee, Kok Siew & Yin Fah, 2013; Anam, 2014), is considered as one of the most important factors which affects consumer's purchase intention when it comes to a smartphone purchase. Price is defined as the money which is charged for purchasing a product or a service as said by (Kotler & Armstrong, 2010).

Many researchers have expressed that other factors like Advertisements of the mobile influence their purchase behavior. Add-on accessories that are provided with the mobile also play a key role in influencing the customers. In addition, Customers are influenced by the offers provided by the retail stores in the market. The impact of after sales service on increasing the loyalty of existing customers is already evident in many cases. In the current study, we wanted to test if there is really any significant relationship between the educational qualification of the customers and they being influenced by these factors.

III. Objectives

The study tries to achieve the below objectives:
To identify the factors influencing customer's intentions while purchasing Smart phones.
To find whether there exists any significant relationship between the education levels of customers and the factors affecting customer's Smartphone purchase.
III.i. Research Questions and Hypothesis

Q1: Is there a statistically significant relationship between Educational Qualification of Customer and Price of the Smartphone while making a Purchase?

H_0: There is no statistically significant relationship between Educational Qualification and Price

H_1: There is a statistically significant relationship between Educational Qualification and Price

Q2: Is there a statistically significant relationship between Educational Qualification of Customer and Advertisements at the time of purchase of Smartphones?

H_0: There is no statistically significant relationship between Educational Qualification and Advertisements

H_1: There is a statistically significant relationship between Educational Qualification and Advertisements

Q3: Is there a statistically significant relationship between Educational Qualification of Customer and Offers in retail stores?

H_0: There is no statistically significant relationship between Educational Qualification and Offers in retail stores

H_1: There is a statistically significant relationship between Educational Qualification and Offers in retail stores

Q4: Is there a statistically significant relationship between Educational Qualification of Customer and Add-on Accessories?

H_0: There is no statistically significant relationship between Educational Qualification and Add-on Accessories

H_1: There is a statistically significant relationship between Educational Qualification and Add-on Accessories

Q5: Is there a statistically significant relationship between Educational Qualification of Customer and After Sales Service?

H_0: There is no statistically significant relationship between Educational Qualification and After Sales Service

H_1: There is a statistically significant relationship between Educational Qualification and After Sales Service

IV. Research Method

As the population size to be studied is above 20,000, a sample of above 380 would be required to make a meaningful analysis. A total of 400 questionnaires were administered through non probability convenience sampling method and a total of
385 responses returned. Out of the 385, the 381 samples which are completely filled and can be analyzed are selected for the analysis. A 5-Point Likert scale was used to collect the data. All the respondents are from various educational levels ranging from Under Graduates to Doctorates within the locations of Guntur, Vijayawada and Tenali.

Chi-Square test for goodness of fit between variables is adopted to find if there is any statistically significant relationship between the educational qualifications of these respondents and various factors that influence the customer behavior while purchasing a smart phone.

IV.i. Chi-Square tests

Chi-Square tests are conducted to find the goodness of fit between two variables. In this case, we are trying to find if there exists a significant relation between the educational qualifications of the customers and the influence of factors that are considered to vary purchase intentions, at the time of purchase of a smartphone. The Pearson Chi-Square significance value is considered for the testing of hypothesis. If the Pearson Chi-Square significance value is below 0.05, the null hypothesis is rejected and the alternate hypothesis is accepted.

V. Data Analysis and Interpretations

V.i. Demographics

| Category       | Count | Valid N % | Total N % | Cumulative N % |
|----------------|-------|-----------|-----------|----------------|
| Gender         |       |           |           |                |
| Male           | 196   | 51.4%     | 51.4%     | 51.4%          |
| Female         | 185   | 48.6%     | 48.6%     | 100%           |
| Age Groups     |       |           |           |                |
| 18-22          | 77    | 20.2%     | 20.2%     | 20.2%          |
| 23-27          | 254   | 66.7%     | 66.7%     | 86.9%          |
| 28-32          | 27    | 7.1%      | 7.1%      | 94.0%          |
| 33-37          | 16    | 4.2%      | 4.2%      | 98.2%          |
| 38-42          | 4     | 1.0%      | 1.0%      | 99.2%          |
| 43 and above   | 3     | 0.8%      | 0.8%      | 100%           |
| Education      |       |           |           |                |
| Secondary      | 2     | 0.5%      | 0.5%      | 0.5%           |
| High Secondary | 3     | 0.8%      | 0.8%      | 1.3%           |
| Under Graduation | 192  | 50.4%     | 50.4%     | 51.7%          |
| Post-Graduation | 168  | 44.1%     | 44.1%     | 95.8%          |
| Other          | 16    | 4.2%      | 4.2%      | 100%           |
From table 1.0, it can be observed that the responses are received and from Male and Female alike as out of the 381 responses, 51.4 are from male and the remaining 48.6 are from female indicating that there is no chance of gender bias in the analysis. The analysis of age groups reveals that a large chunk of the responses constituting to above 66% are received from people of age groups between 23 and 27 which shows a good number of respondents are young and tech using people, so their responses will yield us good results.

Analysis of Educational qualifications of respondents reveals that more than 50% of the respondents are at least graduates and only 1.3% of the total sample of respondents are non-graduates from which we can clearly state that the data is in line with the objectives of the research.

V.ii. Hypothesis Testing

Q1: Test for relationship between Educational Qualification and Price

| Education          | Price  | Not at all Influential | Slightly Influential | Somewhat Influential | Moderately Influential | Extremely Influential | Total |
|--------------------|--------|------------------------|----------------------|----------------------|------------------------|-----------------------|-------|
| Secondary          |        | 0                      | 0                    | 1                    | 0                      | 1                     | 2     |
| High Secondary     |        | 0                      | 0                    | 0                    | 2                      | 1                     | 3     |
| Under Graduation   |        | 28                     | 22                   | 23                   | 71                     | 48                    | 192   |
| Post-Graduation    |        | 11                     | 25                   | 34                   | 68                     | 30                    | 168   |
| Other              |        | 0                      | 1                    | 5                    | 10                     | 0                     | 16    |
| Total              |        | 39                     | 48                   | 63                   | 151                    | 80                    | 381   |

Table 2. Price of the Product
V.iii. Interpretation

From table 3, we can see that the Pearson Chi-Square test value shows a significance value of 0.030 which is below 0.05, so, we can reject the null hypothesis. Therefore, the test concludes that there is indeed a significant relationship between the Customer’s Educational qualification and the price of the product while making a smartphone purchase.

Q2: Test for relationship between Educational Qualification and Advertisements

| Education      | Not at all Influential | Slightly Influential | Somewhat Influential | Moderately Influential | Extremely Influential | Total |
|----------------|------------------------|----------------------|----------------------|------------------------|-----------------------|-------|
| Secondary      | 0                      | 0                    | 0                    | 0                      | 2                     | 2     |
| High Secondary | 0                      | 0                    | 0                    | 2                      | 1                     | 3     |
| Under Graduation| 37                     | 40                   | 32                   | 58                     | 25                    | 192   |
| Post-Graduation| 30                     | 29                   | 32                   | 55                     | 22                    | 168   |
| Other          | 0                      | 3                    | 6                    | 2                      | 5                     | 16    |
| Total          | 67                     | 72                   | 70                   | 117                    | 55                    | 381   |

Table .4.Price of the Product
Table 5. Chi-Square Tests for Advertisements

V. iv Interpretation

The Chi-Square test for Advertisement from table 5 indicates a significance value of 0.29 from which we can reject the null hypothesis. So, it is evident that the advertisement plays a role in influencing the smartphone purchase intentions among various educated groups of customers.

Q3: Test for relationship between Educational Qualification and Offers in retail stores

| Offers on Retail Stores | Not at all Influential | Slightly Influential | Somewhat Influential | Moderately Influential | Extremely Influential | Total |
|-------------------------|------------------------|----------------------|----------------------|------------------------|-----------------------|-------|
| Education               |                        |                      |                      |                        |                       |       |
| Secondary               |                        |                      |                      |                        |                       |       |
| High Secondary          |                        |                      |                      |                        |                       |       |
| Under Graduation        |                        |                      |                      |                        |                       |       |
| Post-Graduation         |                        |                      |                      |                        |                       |       |
| Other                   |                        |                      |                      |                        |                       |       |
| Total                   | 72                     | 52                   | 73                   | 120                    | 64                    | 381   |

Table 6. Offers provided by retail stores at the time of purchase
Table 7 Chi-Square Tests for Retail Store Offers

|                      | Value  | df | Asymp. Sig. (2-sided) |
|----------------------|--------|----|----------------------|
| Pearson Chi-Square   | 35.887 | 16 | .003                 |
| Likelihood Ratio     | 34.027 | 16 | .005                 |
| Linear-by-Linear Association | .502 | 1 | .479                  |
| N of Valid Cases     | 381    |    |                      |

Table 7. Chi-Square Tests for Retail store offers

V.v. Interpretation

The relation between educational qualification of customers and the influence of offers by retail stores at the time of smartphone purchase can be deemed significant as the results from table 7 indicate that the Null hypothesis should be rejected.

Q4: Test for relationship between Educational Qualification and Add-on Accessories

| Education            | Not at all Influential | Slightly Influential | Somewhat Influential | Moderately Influential | Extremely Influential | Total |
|----------------------|------------------------|----------------------|----------------------|------------------------|-----------------------|-------|
| Secondary            | 1                      | 0                    | 0                    | 0                      | 1                     | 2     |
| High Secondary       | 0                      | 0                    | 0                    | 2                      | 1                     | 3     |
| Under Graduation     | 29                     | 28                   | 27                   | 48                     | 60                    | 192   |
| Post-Graduation      | 19                     | 27                   | 43                   | 51                     | 28                    | 168   |
| Other                | 2                      | 2                    | 1                    | 8                      | 3                     | 16    |
| Total                | 51                     | 57                   | 71                   | 109                    | 93                    | 381   |

Table 8. Add-on Accessories available
Table 9. Chi-Square Tests for add on accessories

V.vi. Interpretation
The Pearson significance value for the test is 0.037 which results in rejection of null hypothesis and acceptance of alternate hypothesis. It means that the add-on accessories available to the smartphone at the time of purchase influences the purchase intentions of the customer and depends on the education levels of the customer as well.

Q5: Test for relationship between Educational Qualification and After Sales Service

|                      | Not at all Influential | Slightly Influential | Somewhat Influential | Moderately Influential | Extremely Influential | Total |
|----------------------|------------------------|----------------------|----------------------|------------------------|-----------------------|-------|
| Education            |                        |                      |                      |                        |                       |       |
| Secondary            | 0                      | 0                    | 0                    | 1                      | 1                     | 2     |
| High                 | 0                      | 2                    | 0                    | 1                      | 3                     | 3     |
| Secondary            | 25                     | 40                   | 38                   | 44                     | 45                    | 192   |
| Under Graduation     | 34                     | 18                   | 38                   | 48                     | 30                    | 168   |
| Post-Graduation      | 1                      | 1                    | 2                    | 7                      | 5                     | 16    |
| Total                | 60                     | 59                   | 80                   | 100                    | 82                    | 381   |

Table 10. After Sales Service
Table 11. Chi-Square Tests

|                      | Value | df | Asymp. Sig. (2-sided) |
|----------------------|-------|----|-----------------------|
| Pearson Chi-Square   | 23.995* | 16 | .090                  |
| Likelihood Ratio     | 25.476 | 16 | .062                  |
| Linear-by-Linear Association | .004 | 1   | .949                  |
| N of Valid Cases     | 381   |    |                       |

V. vii. Interpretation
Looking at table 11, we can clearly see that the significance value is 0.90 which is greater than 0.05. So, Null hypothesis is accepted, which states that there is no significant relationship between the education of customers and the influence of after sales service on mobile purchase.

VI. Conclusion
The study reveals that among the five factors considered for testing, 4 factors namely Price of the product, Advertisement, Add-on Accessories and offers by retail stores have a significant relationship with the education levels of the customers while making a smartphone purchase. It is concluded that after sales service is not considered as a factor that alters the purchase intentions of educated customers. Future research can be done by taking other variables that are not considered and also with a larger sample sizes to minimize any chance of errors. Further Regression analysis can be done to find out the amount of relation between the variables.

References
I. Blackwell, R., DSouza, C., Taghian, M., Miniard, P., & Engel, J. (2006). Consumer behaviour: an Asia Pacific approach. Thomson.
II. Chmielarz, W. (2015). Study of Smartphones Usage from the Customer’s Point of View. Procedia Computer Science, 65, 1085–1094. https://doi.org/10.1016/j.procs.2015.09.045
III. HanumanthaRao, S., UdayKiranSarma, A., & VenkateswaraKumar, K. S. (2019). Predicting The Dynamics of Influencing Smartphone Purchase Decisions. International Journal of Recent Technology and Engineering, 8(1), 2851–2856.
IV. Karjaluoto, H., Karvonen, J., Kesti, M., Koivumäki, T., Manninen, M., Pakola, J., … Salo, J. (2005). Factors affecting consumer choice of mobile phones: Two studies from Finland. *Journal of Euromarketing, 14*(3), 59–82.

V. Kaushal, S. K., & Kumar, R. (2016). Factors Affecting the Purchase Intension of Smartphone: A Study of Young Consumers in the City of Lucknow. *Pacific Business Review International, 8*(12), 1–16.

VI. Kotler, P., Brown Linden, (author.), Adam Stewart, (author.), & Armstrong Gary, (author.). (2004). *Marketing* (6th editio). Frenchs Forest, N.S.W.: Pearson/Prentice Hall.

VII. Kotler, P., & Lee, N. (2008). *Social marketing: Influencing behaviors for good*. Sage.

VIII. Ling, C., Hwang, W., & Salvendy, G. (2007). A survey of what customers want in a cell phone design. *Behaviour & Information Technology, 26*(2), 149–163.

IX. Liu, C.-M. (2002). The effects of promotional activities on brand decision in the cellular telephone industry. *Journal of Product & Brand Management, 11*(1), 42–51.

X. Lu, H., & Su, P. Y. (2009). Factors affecting purchase intention on mobile shopping web sites. *Internet Research, 19*(4), 442–458. https://doi.org/10.1108/10662240910981399

XI. Mack, Z., & Sharples, S. (2009). The importance of usability in product choice: A mobile phone case study. *Ergonomics, 52*(12), 1514–1528.

XII. Manukonda et al. (2019). What Motivates Students To Attend Guest Lectures?. *The International Journal of Learning in Higher Education*. Volume 26, Issue 1. 23-34.

XIII. Oulasvirta, A., Wahlström, M., & Ericsson, K. A. (2011). What does it mean to be good at using a mobile device? An investigation of three levels of experience and skill. *International Journal of Human-Computer Studies, 69*(3), 155–169.

XIV. Patel, R. K. (2014). A study on consumer behavior and opportunities for Nokia smart-phones in India. *Galaxy International Interdisciplinary Research Journal, 2*(1), 68–97.

XV. Rahim, A., Safin, S. Z., Kheng, L. K., Abas, N., & Ali, S. M. (2016). Factors Influencing Purchasing Intention of Smartphone among University Students. *Procedia Economics and Finance, 37*, 245–253.

XVI. Riyath, M. I. M., &Musthafa, S. L. (2014). *Factors affecting mobile phone brand preference: empirical study on Sri Lankan university students*.

XVII. Saif, N., Razzaq, N., Amad, M., & Gul, S. (2012). Factors affecting consumers’ choice of mobile phone selection in Pakistan. *European Journal of Business and Management, 4*(12), 16–26.
XVIII. Sata, M. (2013). Factors affecting consumer buying behavior of mobile phone devices. *Mediterranean Journal of Social Sciences, 4*(12), 103.

XIX. Singh, P. (2013). Smartphones are keeping users in India plugged in. *Nielsen Informate Global Insights*.

XX. Sujata, J., Yatin, J., Abhijit, C., Noopur, S., & Ruchi, D. (2016). Factors affecting smartphone purchase among Indian youth: A descriptive analysis. *Indian Journal of Science and Technology, 9*(15), 1–10.

XXI. Swait, J., & Adamowicz, W. (2001). The influence of task complexity on consumer choice: a latent class model of decision strategy switching. *Journal of Consumer Research, 28*(1), 135–148.

XXII. Yee, K. L. L., Siew, H. K., & Yin-Fah, B. C. (2013). Factors Affecting Smartphone Purchase Decision Among Malaysian Generation Y. *International Journal of Asian Social Science, 3*(12), 2426–2440.

XXIII. Yun, M. H., Han, S. H., Hong, S. W., & Kim, J. (2003). Incorporating user satisfaction into the look-and-feel of mobile phone design. *Ergonomics, 46*(13–14), 1423–1440.