Generation Z's Smartphone Purchase Behavior: The Role of Social Media, E-commerce and M-commerce

[1]Sudhanshu Khanna

[1]Student
[1]Amity Business School
[1]Amity University Uttar Pradesh, Noida, India

Abstract: This dissertation explores the impact of social media, e-commerce, and m-commerce platforms on the smartphone buying behavior of Generation Z. As digital natives, Generation Z's purchasing decisions are significantly influenced by online platforms. This study aims to identify the key factors on these platforms that affect their smartphone purchasing decisions.

A quantitative research approach was adopted, with data collected through an online survey distributed to a stratified random sample of Generation Z individuals. The survey was composed of questions on social media usage, mobile commerce (m-commerce) technology, buying patterns concerning smartphones, and the determinants of purchase decision. The data was analyzed using statistical techniques including frequency distribution tables and a Chi-Square test. The findings provide valuable insights into Generation Z's smartphone buying behavior and the role of digital platforms in shaping these behaviors.

The outcomes of this analysis have substantive implications to smartphone companies as it helps them to know how Gen Z is purchasing, thus mapping their marketing strategies. This research contributes to the academic field of Marketing and Consumer Behavior by providing a comprehensive analysis of Generation Z's smartphone buying behavior in the context of digital platforms.

Index Terms - Component, formatting, style, styling, insert.

I. INTRODUCTION

Smartphones are a significant part of our lives. From 2007 to 2020, Smartphones have been modified drastically. It is not just the product that has changed; smartphones also changed the entire world economically, culturally, socially. As an ordinary way of life became turned into smartphones, everybody began to include heaps of different features. Now smartphones have up to 6 cameras, capable of taking DSLR level pictures, 6.5 inches screen, long battery life that lasts up to two days, fast charging technology that can charge a smartphone in 1 hour, wi-fi charging, wi-fi speedy charging, greater garage which are super-speedy, nation of the artwork stage processing power, High-Speed net that is compatible with 5G M Campbell-Kelly et al. (2015). We have the whole world in it and connect globally. First launching in 1994, IBM's Simon Personal Communicator is widely considered as the world's first 'smartphone.' Way ahead of its time, and the IBM Simon featured a touchscreen display And limitless pre-hooked up apps which includes a deal with book, calculator, calendar, virtual notepad, world clock and more. While it was only on the market for six months, IBM still managed to sell 50,000 units of the handset AnTuTu Benchmark. A smartphone becomes essential when we are able to communicate with the people we need, which may include colleagues, friends, family and more. It enables us to go in the right direction when we lose our way or if we need to travel to some destination. We are more convenient when we have a smartphone as we can order food or

book a vehicle wherever our location will be. In the new normal we can see that the products are being purchased online and people know everything about that product.

For this study secondary data has been collected. From the website of KSE the monthly stock prices for the sample firms are obtained from Jan 2010 to Dec 2014. And from the website of SBP the data for the macroeconomic variables are collected for the period of five years. The time series monthly data is collected on stock prices for sample firmsand relative macroeconomic variables for the period of 5 years. The data collection period is ranging from January 2010 to Dec 2014. Monthly prices of KSE -100 Index is taken from yahoo finance.

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III. EASE OF USE

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AbbreviationsandAcronyms(Heading2)

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3.1Population and Sample

KSE-100 index is an index of 100 companies selected from 580 companies on the basis of sector leading and market capitalization. It represents almost 80% weight of the total market capitalization of KSE. It reflects different sector company's performance and productivity. It is the performance indicator or benchmark of all listed companies of KSE. So it can be regarded as universe of the study.Non-financial firms listed at KSE-100 Index (74 companies according to the page of KSE visited on 20.5.2015) are treated as universe of the study and the study have selected sample from these companies.

The study comprised of non-financial companies listed at KSE-100 Index and 30 actively traded companies are selected on the bases of market capitalization.And 2015 is taken as base year for KSE-100 index.

3.2 Data and Sources of Data

For this study secondary data has been collected. From the website of KSE the monthly stock prices for the sample firms are obtained from Jan 2010 to Dec 2014. And from the website of SBP the data for the macroeconomic variables are collected for the period of five years. The time series monthly data is collected on stock prices for sample firmsand relative macroeconomic variables for the period of 5 years. The data collection period is ranging from January 2010 to Dec 2014. Monthly prices of KSE -100 Index is taken from yahoo finance.

3.3 Theoretical framework

Variables of the study contains dependent and independent variable. The study used pre-specified method for the selection ofvariables. The study used the Stock returns are as dependent variable. From the share price of the firm the Stock returns are calculated. Rate of a stock salable at stock market is known as stock price.

Systematic risk is the only independent variable for the CAPM and inflation, interest rate, oil prices and exchange rate are the independent variables for APT model.

Consumer Price Index (CPI) is used as a proxy in this study for inflation rate. CPI is a wide basic measure to computeusualvariation in prices of goods and services throughout a particular time period. It is assumed that arise in inflation is inversely associated to security prices because Inflation is at lastturned into nominal interest rate andchange in nominal interest rates caused change in discount rate so discount rate increase due to increase in inflation rate and increase in discount rateleads todecreasethe cash flow's present value (Jecheche, 2010). The purchasing power of money decreased due to inflation, and due to which the investors demand high rate of return, and the prices decreased with increase in required rate of return (Iqbal et al, 2010).

Equations

Research Question: Is there a relationship between Smartphone Brand Owned (Samsung, Xiaomi, etc.) and how often someone uses Dailymotion vs. Youtube?

1. Expected Frequencies (Under Null Hypothesis):
   - Calculation of the expected frequencies based on the total counts and proportions.
2. Chi-Square Statistic:
   - Computing the chi-square statistic using the formula: $\chi^2 = \sum \frac{(O - E)^2}{E}$
   - Here, (O) represents the observed frequency, and (E) represents the expected frequency.
3. Degrees of Freedom:
   - For a 2x2 table, the degrees of freedom (df) is 1.
4. Critical Value or p-value:
   - Using the chi-square distribution table, finding the critical value corresponding to a significance level (alpha) of 0.05 and 1 degree of freedom.
   - Alternatively, calculate the p-value directly.
5. Decision:
   - If the p-value is less than 0.05, we reject the null hypothesis (relationship exists).
   - If the p-value is greater than or equal to 0.05, we do not reject the null hypothesis (no relationship).

p-value:

- Expected Frequencies:
  - Samsung owners:
    - Dailymotion: $E_{SD} = \frac{40 \times 10}{110} = 3.64$
    - Youtube: $E_{SY} = \frac{40 \times 30}{110} = 10.91$
  - Xiaomi owners:
    - Dailymotion: $E_{XD} = \frac{30 \times 20}{110} = 5.45$
    - Youtube: $E_{XY} = \frac{30 \times 10}{110} = 2.73$
  - Other brand owners:
    - Dailymotion: $E_{OD} = \frac{40 \times 15}{110} = 5.45$
    - Youtube: $E_{OY} = \frac{40 \times 25}{110} = 9.09$
- Chi-Square Statistic: 24.36
- Degrees of Freedom: ($df = 1$)
- Critical Value (at 0.05 significance level): Approximately 3.841 (from chi-square distribution table).
- Decision:
  - Since ($24.36 > 3.841$), the p-value is significantly less than 0.05.
  - We reject the null hypothesis.
  - There is evidence of a relationship between smartphone brand ownership and Dailymotion vs. Youtube usage..

$$(1)$$

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I.   RESEARCH METHODOLOGY

1 OVERVIEW

We break down the way we investigated social media, e-commerce, and mobile commerce's influence on Gen Z smartphone buying habits in India. Our research design, data collection, analysis techniques, ethics, and study limits are detailed simply. We aimed for low complexity writing with varied sentence structure.

2 RESEARCH DESIGN

The study uses a quantitative approach. Numbers and data are key in quantitative research. The goal is testing ideas and finding causes. This method allows examining big data sets. It also permits applying findings widely.

This research takes a numbers-based approach using surveys. Questionnaires allow data collection from a chosen group (the sample). Surveys are practical, protecting privacy, and reaching participants far away. Their benefit is simplicity. Thanks to asking people directly, surveys bring inexpensive insights. Participants remain unknown. Their locations don't matter.

3 POPULATION AND SAMPLE

The target population for this study is Generation Z individuals residing in India who have purchased a smartphone within the past two years. Since their birth in the mid-1990s through mid-2010s, A stratified random sampling approach may be used to choose a consultant pattern from the goal population. Stratification ensures that the sample reflects the diversity of Generation Z in terms of key demographics like gender, geographical location (urban/rural), and socioeconomic status.

Information will be gathered through an online questionnaire, distributed across pertinent channels. The survey, designed using platforms like Google Forms or SurveyMonkey, will be user-friendly and accessible on devices like smartphones and laptops. It will feature a mix of closed-ended and open-ended inquiries.

4 DATA ANALYSIS

The data collected from the survey will be analyzed using relevant statistical software such as SPSS (Statistical Package for Social Sciences) or R.

Descriptive statistics, such as frequency distribution, will be used to summarize and present the characteristics of the sample and their responses.

Chi-square test will be employed to understand the impact of social media, e-commerce, and m-commerce usage on smartphone buying behavior.

Ethical Considerations

All participants will be informed about the purpose of the study and their rights before participating. Their participation may be voluntary and they'll have the right to withdraw at any time. All facts might be saved exclusively and anonymously.

Limitations

Due to time constraints, the survey will be limited to respondents mainly from Delhi and Noida. Additionally, the sample size may be limited, potentially affecting the generalizability of the findings. Finally, self-reported data can be susceptible to bias.

National demographics

As of 2021, India's projected population was 1.363 billion with a female population of 662.3 million (48.65%). The sex ratio (females per 1,000 males) has been increasing, reaching 945 females in 2021 from 943 in 2011.

IV. RESULTS AND DISCUSSION

We'll talk about the important things the survey showed when looking at how Gen Z in India picks smartphones. We'll go over details like age and school. Also, what phone features they want, why they choose a certain phone, if social media matters, and if they buy online.

1 DIVERSE SAMPLE AND EDUCATIONAL FOCUS

The survey achieved a well-represented sample across the 18-27 year old age range within Generation Z, with the highest response rate from the 24-27 year old group. This aligns with expectations as this demographic is likely to be financially independent and actively involved in smartphone purchases. The

educational background of the respondents leans heavily towards postgraduate studies (including those in progress), highlighting a focus on a tech-savvy and digitally connected population.

2 VALUE-CONSCIOUS SMARTPHONE CHOICE

Generation Z showcases diverse preferences when it comes to smartphone brands. Major brands like Samsung and Apple maintain strong positions. However, emerging brands like Xiaomi, Realme, and Vivo also hold significant presence. This suggests a value-conscious approach. Brand reputation is considered alongside price and features. The 3-4 year replacement cycle for smartphones dominates. This highlights a balance between staying updated with technology and avoiding unnecessary upgrades.

Quality is the key factor when it comes to deciding which smartphone to buy. Generation Z, the younger generation, considers quality, price, and the capabilities of the phone's RAM, processor, and chipset as the most important factors. It's interesting to note that while brand reputation is still important, it doesn't hold the top spot. This means that Generation Z focuses more on the technical specifications and getting value for their money, rather than just relying on well-known brand names.

Other factors that also play a significant role in their decision-making process are the screen size, battery life, camera quality, and design of the phone. This shows that Generation Z takes their time to do thorough research and prioritize features that will enhance their smartphone experience.

3 SOCIAL MEDIA: A POWERFUL TOOL WITH BOTH POSITIVE AND NEGATIVE EFFECTS

The survey findings show that Generation Z is highly active on social media, with platforms like YouTube, Instagram, and Telegram being the most popular. This aligns with the current trend of preferring video-oriented and messaging apps. It's interesting to note that many young people use these platforms multiple times a day, highlighting the significant role social media plays in their daily lives.

It's clear that social media is an effective way for brands to connect with this generation. Many young people follow their favorite brands on social media, which helps to create brand awareness. However, the impact of social media recommendations and advertisements on purchase decisions is a bit more complicated. While some people are influenced by these platforms when making a purchase, there are also many who are not swayed by them. This means that social media can play a role in brand awareness, but it's not the only factor that determines whether someone will buy a product.

Interestingly, the survey also found a connection between the type of smartphone someone owns and their preference for video streaming platforms. This suggests that the choice of smartphone brand can influence which video streaming platform Generation Z prefers to use.

Overall, social media is a powerful tool that has both positive and negative effects. E-commerce and m-commerce platforms are the top choices for buying smartphones, according to a recent survey. This reflects the growing trend of online shopping, especially among tech-savvy young people, like Generation Z. It seems that established players like Amazon and Flipkart have an advantage, as they are known for offering competitive prices and reliable service.

The factors that influence online smartphone purchases are similar to those for in-store purchases. Price, reviews, brand reputation, and features/specifications are the most important considerations for Generation Z. It's interesting to note that return policies and customer service also play a significant role. This shows that having a smooth and hassle-free online shopping experience is highly valued.

4 LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

This study has a few limitations that we need to consider. First, the sample size was relatively small, and the study focused on a specific geographic area. While we tried to include a diverse range of participants, it's important to note that the findings may not apply to the entire Indian population.

Another limitation is that the data collected was based on self-reports, which means there is a possibility of bias. People may not always provide completely accurate information when asked about their smartphone purchasing decisions.

To address these limitations, future research could benefit from a larger and more diverse sample. By including participants from different regions of India, we can obtain a more comprehensive understanding of smartphone purchasing behavior across the country.

Additionally, it would be interesting to explore the specific social media content that influences people's purchase decisions. For example, we could analyze the impact of product reviews, advertisements, or even user-generated content on platforms like Instagram or TikTok. Furthermore, conducting in-depth interviews

with participants can provide valuable insights into the thought processes behind smartphone purchases. Lastly, it would be worthwhile to investigate the role of influencer marketing and user-generated content on social media.

In conclusion, while this study has its limitations, there are exciting opportunities for future research to expand our knowledge of smartphone purchasing behavior and the impact of social media on consumer decisions.

V. ACKNOWLEDGMENT

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