

## FACEBOOK ANALYTICS FOR TARGETED MARKETING

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### 1. Abstract:

Facebook analytic provide the data that businesses need to enhance their social media presence. Through its brand pages and the resulting social interactions, Facebook constitutes a sizable percentage of social media marketing for businesses. Digital marketers can leverage the platform's abundant advertising possibilities to build their brands and generate leads. Compared to other social media platforms, it can be one of the major sources of traffic for the websites of brands and businesses. Facebook marketing is vital to every social media marketing effort due to its extensive capabilities and user base. This study focuses on how well Facebook advertisements work to increase consumers' propensity to buy. The outcome demonstrates that Facebook is successfully boosting the market values of numerous products and causing a significant shift in consumers' purchasing intentions.

Keywords : Facebook ,social media, targeted marketing, analytics,brand

### 2. INTRODUCTION

#### Industry Profile :

The electronics industry makes consumer electronics, electronic equipment, and electrical components for a range of goods. Circuit boards, televisions, and mobile gadgets are typical items in the electronics industry. Telecommunications, networking, electronic components, industrial electronics, and consumer electronics are all included in the electronics sector.

## **Growth in the Electronics Sector :**

The rapid expansion of the electronics industry is a result of rising demand from developing market economies. As a result, numerous nations are generating more electronics, and investments in the international manufacture of electronics have skyrocketed.

Globally rising consumer expenditure is accelerating the expansion of the electronics sector. Consumer demand for electronics increases together with the growth of developing economies. Electronics-producing nations now have sizable consumer populations that can afford new electronics. Additionally, as a result of increased competition, the cost of producing electronics is falling, resulting in even lower prices for consumers.

China has traditionally been a big producer of electronics and is currently a significant market for consumer and industrial electronics. Within a few decades, it is anticipated that Asia will account for almost half of the worldwide market for electronics. Future industry profitability will be improved because to this growth.

As consumers demand more autos, energy-efficient homes, and medical innovations, the electronics sector's supportive role in providing equipment and components for other industries is also a factor in growth.

The semiconductor industry, which makes up the majority of the electronics market, is now valued more than \$555.9 billion globally as of 2021. The majority of electrical products, including cameras, computers, cars, mobile phones, refrigerators, lightbulbs, washing machines, and televisions, employ semiconductors.

## **Challenges in the Electronics Retail Market :**

The retail market for electronics, however, is growing more competitive and dispersed due to a special set of problems. As a strategy for gaining market share, many electronics manufacturers are increasingly selling their goods in their own stores.

More prosperous. For consumer traffic, these stores compete with chain stores like Best Buy (BBY). Internet retailers like Amazon (AMZN) compete for customers' dollars and provide goods that are unavailable in conventional stores. Stores struggle to provide customers with enough of the more popular electronics products as the range of products grows, and as a result, they lose market share to online sellers.

Despite rising purchase volumes, many larger businesses are seeing a decline as the market gets more fragmented with an increase in the number of businesses selling electronic goods.

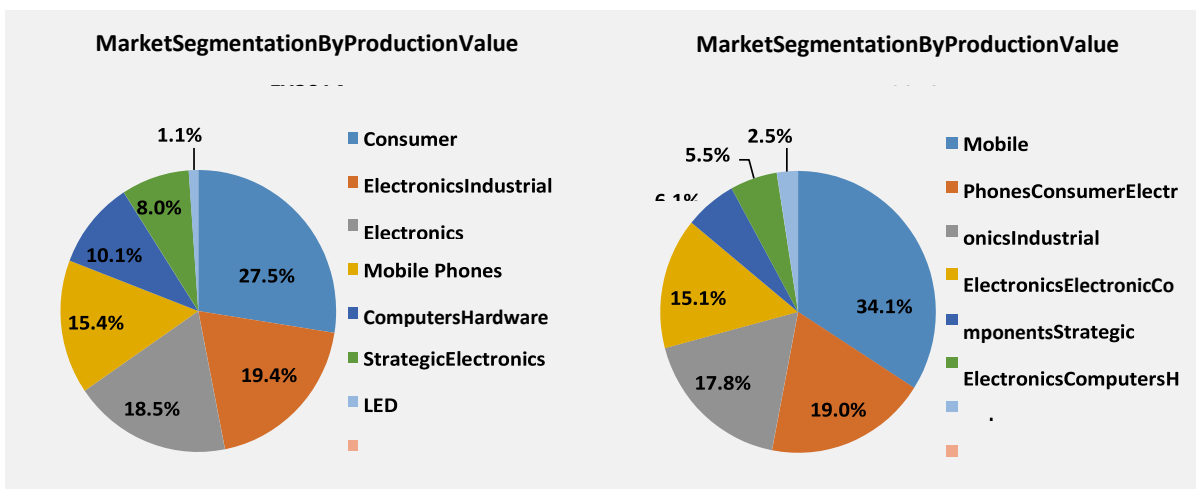
For electronics retailers, volatility in company valuations is quickly becoming the norm as the sector ages and faces a changing business environment. The electronics industry is under pressure to change as a result of store closings, mergers, and acquisitions, as well as falling prices.

In the past, demand for hardware and electronics products from India has continued to expand steadily. Since it has the ability to produce high-quality goods at lower prices than its western competitors, the electronic hardware industry is projected to promote both domestic and foreign investment with growing government support. The production value of the industry for electronic products and hardware, excluding software services, expanded at a CAGR of 22.3% from FY 2014 to FY 2018. Nonetheless, the domestic share of GDP is currently quite low at about 1.7%, far behind that of nations like China, Taiwan, and South Korea.

The following primary verticals represent the current division of the Indian electronics sector.

| Indian Electronic Industry    |   |
|-------------------------------|---|
| Key Segment                   | Major Products  |
| <b>Consumer Electronics</b>   | Include Home Appliances, viz., Refrigerator, Washing Machine, Air Conditioner & Microwave, Television, Music system, and Home Theatre, DTH and set top boxes.   |
| <b>Industrial Electronics</b> | This Segment includes hardware technologies and systems with built-in software which is used across array of industries towards industrial automation and requires high level of technical skill. Major products include UPS systems, Supervisory Control and Data Acquisition (SCADA), Programmable Logic Controller (PLC), AC drive systems |
| <b>Mobile Phone</b>           | Mobile Phone, Tablets.  |
| <b>Computer Hardware</b>      | Desk-top computers, laptop, notebook, net-books, servers etc  |

|                               |   |
|-------------------------------|---|
| <b>Strategic Electronics</b>  | The strategic electronic sector comprises of satellite based communication, navigation and surveillance system, sonar, underwater electronics system, radar, infra-red based detection and ranging system, etc. |
| <b>LED</b>                    | LED Lights in automobiles, communications, signage, signaling, Architecture and entertainment sectors.  |
| <b>Electronics Components</b> | It includes semi-conductors, capacitors, resistors, picture-tube, x-ray tube, cathode ray tube etc. and cater to the consumer electronics, telecom, defense, and IT segment of the electronic industry          |
| <b>Automotive Electronics</b> | Increasing digitization of automobile controls, satellite radios, GPS navigation, sensors, air conditioning system, electronic gadgets  |



Consumer electronics, industrial electronics, and electronic components have been overtaken by mobile phones over FY 2014 levels to become the largest segment in terms of market share in domestic manufacturing value in FY 2018. In FY 2017, mobile phones became the largest sector, and this trend persisted in FY 2018.

As a result of Growing cellular penetration and increase in data consumption Rapid adoption of electronic goods across every industry and consumer segment, the Indian electronic goods and hardware industry is anticipated to experience strong growth.

The demand for Point of Sale devices is probably being driven by the growth of digital payments following demonetization and the government's ongoing efforts to increase transparency and transform India into a cashless economy (POS device)

Government spending on infrastructure, such as roads, ports, railways, airports, and urban development, has increased. This includes ongoing digitization and ICT initiatives to promote digital classrooms (Smart City Initiative).

Use of electronic medical devices in the healthcare industry and electronic equipment application in the automotive industry. Deployment of smart metres and other electronic in the power industry to reduce the power distribution and transmission losses. Significant deployment of various security equipment in airport, defence, railways, retail, etc. Promote the solar energy sector.

### **Government Regulations**

The government has made the expansion of the electronics hardware manufacturing sector a priority and has taken numerous ongoing steps to support the sector. The government accepts 100% of FDI under the automatic route, does not require an industrial licence, and waives the payment of a technical know-how charge and a royalty for technology transfer.

### **Major Scheme:**

On October 25, 2012, the Union Cabinet approved "National Policy of Electronics (NPE) 2012" to support Indian manufacturers of electronics and telecom devices. Electronic System Design & Manufacturing (ESDM) and Modified Special Incentive Package Scheme are two important schemes that are part of NEP (M-SIPS). Salient NPE 2012 Features include:

ESDM stands for Electronic System Design & Manufacturing. The main goal of ESDM is to establish a globally competitive manufacturing base that can meet domestic demand as well as serve the global market. The ESDM's salient features include:

The government has proposed investing roughly \$100 billion over the course of the 12th Plan period in order to reach the ambitious goal of a turnover of \$400 billion by 2020. (2012- 17).

To have the chip design and embedded software industries generate USD 55 billion in revenue by 2020. To double the ESDM sector's exports from USD 5.5 billion to USD 80 billion by 2020.

To raise the percentage of different raw materials, parts, and electronic components that are produced domestically from the present 20–25% to roughly 60% by 2020.

To strengthen the infrastructure for quality evaluation across the nation, establish an institutional system for the development of various standards and quality certifications for electronic products.

**Modified Special Incentive Package Scheme (M-SIPS):** In an effort to promote ESDM and lessen the demand-supply gap in the electronics industry, the ministry introduced the M-SIPS in July 2012. The policy had previously been available for applications for three years following its notice, or up until July 2015, but it has now been extended for a further five years via notification dated August 3, 2015, until July 27, 2020. A total of 29 categories, including telecom, IT hardware, medical electronics, solar photovoltaic, LEDs, LCDs, consumer electronics, strategic electronics, aviation, industrial electronics, nano- electronics, semiconductor chips, and other electronic components, were first identified for M-SIPs.

## OBJECTIVES OF STUDY

- To study the impact of social media marketing on the youth
- To identify the product or service that is most suitable to be marketed on Facebook
- To identify mostly used social media platform for digital marketing.
- To know the analytics of Facebook, features of Facebook and how effective it is for targeted marketing.
- To give Suggestions to promote the brand using facebook analytics

## 3.LITERATURE REVIEW

Kaplan and Haenlein (2010, 61) define social media as “a group of Internet based applications that build on the ideological and technological foundations of Web 2.0, and allow the creation and exchange of user generated content.” Sinclaire and Vogus (2011, 294) cite O’Reilly’s (2005) definition: “social media is a broad term that describes software tools that create user generated content that can be shared.” However, there are some basic features necessary for a website to meet the requirements as a social network website: the site must contain user profiles, content, a method that permits users to connect with each other and post comments on each

other's pages, and join virtual groups based on common interests such as fashion or politics. (Gross & Acquisti, 2005; Ellison, Steinfield & Lampe, 2007; Lenhart & Madden, 2007; Winder, 2007; Boyd & Ellison, 2007 as cited in Cox 2010).

Sunitha Kuppaswamy (2010) defines a "The Impact of Social Networking Websites on the Education of Youth". Social networking websites like Orkut, Facebook, Myspace and Youtube are becoming more and more popular and have become part of daily life for an increasing number of people. Because of their features, young people are attracted to social networking sites. In this paper, the authors explore the impact of social networking sites on the education of youth. The study argues that these social networking websites distract students from their studies, but these websites can be useful for education based on sound pedagogical principles and proper supervision by the teachers. Moreover, the research concludes that social networking websites have both positive as well as negative impact on the education of youth, depending on one's interest to use it in a positive manner for his or her education and vice versa.

Dr. Ampu Harikrishnan (July 2018) defines a "Impact Study of Social Media Marketing Among Youth: With Special Reference". Social media and the related websites like Facebook, WhatsApp, Twitter, Google Duo, Hike, Instagram, etc. have changed our way of living to a certain extent, now our emotions are based on emoji's and our mood is dependent on likes and comments on our photos and other material uploaded on these respective sites. The studies show that new generation or youth i.e. born after 1990, is almost dependent on such sites for different things like, communicating with friends, college notes, new trends and fashion, current issues and many such things. This is a well known fact that globally youth is the biggest users and even consumers of such sites.

Gil Appel, Lauren Grewal, Rhonda Hadi, Andrew T. Stephen (2020) "The future of social media in marketing". Social media allows people to freely interact with others and offers multiple ways for marketers to reach and engage with consumers. Considering the numerous ways social media



affects individuals and businesses alike, in this article, the authors focus on where they believe the future of social media lies when considering marketing-related topics and issues. Drawing on academic research, discussions with industry leaders, and popular discourse, the authors identify nine themes, organized by predicted imminence (ie, the immediate, near, and far futures), that they believe will meaningfully shape the future of social media through three lenses: consumer, industry, and public policy. Within each theme, the authors describe the digital landscape, present and discuss their predictions, and identify relevant future research directions for academics and practitioners

Cherniece J Plume, Yogesh K Dwivedi, Emma L Slade (2016) "Social media in the marketing context: A state of the art analysis and future directions" Social media has provided endless opportunities for marketers, fuelling their desire to learn more about their consumers through this dynamic online environment. Yet many organisations are finding it difficult to create effective marketing strategies, making decisions that are based on research that is highly focused on the nature and boundaries of social media. The changing behaviour of consumers, variety of platforms and changing culture indicates that much of the research around this topic is still highly fragmented. Social Media in the Marketing Context: A State of the Art Analysis and Future Directions provides a comprehensive overview of the current literature surrounding social media and the marketing discipline, highlighting future development opportunities in both knowledge and practice. includes extensive literature search on social media in the context of the marketing discipline provides key areas for future research and recommendations for practitioners shows the importance for marketers of understanding individual behaviour on social media



## 4. RESEARCH METHODOLOGY:

### SAMPLE SIZE

Sample sizes of 84 respondents were selected for the purpose of conducting the study.

### SAMPLE TECHNIQUE

The technique used here is Convenient Sampling.

### TOOLS FOR ANALYSIS

- Statistical tools
- Percentage analysis
- Chi-square test

## 5. CHI SQUARE TEST

To evaluate whether there is a substantial discrepancy between the expected frequencies and the observed frequencies in one or more categories, the chi-squared test is utilised.

$$\begin{aligned} \text{ExpectedScore} &= \frac{AVG(\text{BrandScore}) \times AVG(\text{AttributeScore})}{AVG(\text{AllScore})} \\ &= \frac{AVG(\text{Column}) \times AVG(\text{Row})}{AVG(\text{All})} \end{aligned}$$

The attribute *profile* ( $\text{Profile} = \text{Actual Score} - \text{Expected Score}$ ) reveals whether the brand's association with the attribute is strong ( $\text{profile} > 0$ ) or weak ( $\text{profile} < 0$ ).

### A) Chi square test of independence using two variables: Gender and Product category in Facebook

| Gender | Product Category in Facebook |
|--------|------------------------------|
| M      | Footwear                     |
| F      | Electronics gadgets          |
| F      | Electronics gadgets          |
| F      | Cosmetics                    |
| M      | Accessories                  |
| F      | Clothing                     |

Table no: 4.16

|                       |       |
|-----------------------|-------|
| Chi square statistics | 19.3  |
| P-value               | 0.041 |

### Interpretation:

At 95% confidence level (5% chance of error) – As p-value = 0.041 which is less than 0.05, there is a statistically significant association between gender and product category purchased. So, Gender has an influence on the type of product being purchased.

### B) Association of The Age Group and Response Towards Time Spent on Facebook.

To analyse the whether there is association of the age group and response towards time spent on social media app, a Chi-square test is conducted at 5% level of significance with 2 Degree freedom. the results of the testes are presented as follows:

| Age-group    | Timespent on Facebook |                        |                       |                     |              |           |
|--------------|-----------------------|------------------------|-----------------------|---------------------|--------------|-----------|
|              | Activ<br>euser        | 1-2 hrs.<br>per<br>day | Alterna<br>teday<br>s | Weekl<br>y<br>twice | Weeken<br>ds | Tota<br>l |
| 15-25        | 36                    | 47                     | 3                     | 0                   | 2            | 88        |
| 25-35        | 2                     | 5                      | 0                     | 0                   | 2            | 9         |
| 35-45        | 3                     | 0                      | 0                     | 0                   | 0            | 3         |
| 45&abov<br>e | 0                     | 0                      | 0                     | 0                   | 0            | 0         |
| Total        | 41                    | 52                     | 3                     | 0                   | 4            | 100       |

Table 2 : Association of the age group and response towards time spent

**NULL HYPOTHESIS (HO):** There is no significant association between the age group and response towards time spent on Face book

**ALTERNATIVE HYPOTHESIS(H1):** There is significant association between the agegroup and response towards time spent on Face book

|  |               |
|--|---------------|
| LEVELOFSIGNIFINACE                     | 5%            |
| DEGREEOFFREEDOM(n-1-pooling)           | 2             |
| CRITICAL/TABLEVALUE                    | 5.991         |
| ChiX <sup>2</sup> VAULE                | 0.1493        |
| <b>DECISION:</b><br>NULLHYPOTHESIS(HO) | <b>ACCEPT</b> |

### Interpretation:

Since the calculated value 0.1493 is lesser than the critical value 5.991 at 5% level of significance and 2 degrees of freedom, therefore we accept the null hypothesis, i.e. there is no signification between the age group and spent on social media app.

## 6.FINDINGS

They responded to the inquiries by stating that they have been utilising Facebook for more than three years and that it is currently their primary marketing medium. They added that using Facebook as a marketing medium offers a lot of potential.

Yet, they both firmly believe that businesses should have a significant presence on Facebook because it offers so many marketing opportunities. The difficulties with Facebook marketing were also discussed. The company's privacy comes first, and if marketing is carried out using paid methods, the ROI comes second.

### **The challenges of using Facebook as a marketing channel in India**

Both interviewees spoke of numerous issues with utilising Facebook in a place like India. The interviewees listed a number of issues, including inadequate IT infrastructure, low internet penetration, low literacy rates, and a lack of effective government plans and strategies. The lack of electricity in the nation, however, is the main issue. Similar to this, outside of India's major cities, so many people lack access to computers and the internet.

## 7.CONCLUSION

Companies must create a presence on social media platforms, particularly Facebook. First off, according to the research, Facebook and other social media platforms (such as YouTube and Instagram) have high levels of user engagement. They give businesses a fantastic chance to connect with a variety of consumers in order to promote their goods and increase brand recognition. Second, by creating a presence on social media, businesses can obtain a second front page on search engines. Also, according to the survey's results, 30% of the participants are aware of the case study company's Facebook page via Google or other search engines. This indicates that having a presence on social media is advantageous for a business. The company's search engine rating can be raised in this method. Last but not least, compared to conventional

marketing, it is an inexpensive way to advertise the business. The process of creating a social media presence is free

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