SOCIAL MEDIA ANALYTICS FOR BUSINESSES

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ABSTRACT

As we witness the current times of pandemic covid-19 across the globe, we also witness technological advancements in our daily lives and ease of operations through various media like social media platforms, high end devices (Smart Televisions, Smart phones etc.). Digitalization has changed the world and the difference is substantial from traditional ways.

Huge potential is shown by social media platforms for marketers. Advertisers can optimize this potential to understand their consumers and leverage upon. Consumers/users share their thoughts, opinions, preferences, feedback for different products/services on social media platforms freely resulting in enormous data creation. This data is known as User generated content. It can be in different forms viz., comments, opinions, reviews, images.

User generated content can be processed in the form of structured information and can give insights to both i.e., Marketers and Consumers/customers.

Current study focuses on the usage of user-generated content for marketers so that they can design their marketing strategies catering to the needs of the customers. Sentiment Analysis has been conducted on the data collected.

Keywords: **Social Media Analytics, Social Media Platforms. User Generated Content (UGC)**

INTRODUCTION

The revolution in information technology through internet has brought explosion of various digital platforms available. These platforms are generally classified as social media platforms. (Kaplan and Haenlein, 2010) Social media has been explained as a platform where creation, access and exchange of user-generated content is allowed across the world through different internet based media available. Social media platforms also include certain content which is not classified but is available on internet in the form of blogs, wikis, tiktok etc. Social media has accelerated the momentum of promoting the products/services among the targeted audiences.

Internet has transformed our daily lives to a greater extent. We as customers/consumers are not buying the products, the way we used to do earlier. In today's scenario, where every product is available on e-commerce platform, it's not possible to have touch and feel of every product before purchase. Therefore, Social Media is one solution where potential buyers can

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go through the reviews/feedback/comments before buying any product. Also marketers can use the same information to design, improve and promote their products/services accordingly. According to (Hawkins and Vel, 2013), social media has grown to gain recognition as a pronounced and paramount marketing factor guiding the success of a product/service/business. According to a survey done by Clutch (2017) 2 billion plus people across the world are social media users and likely to grow exponentially. Social media continues to influence customers' purchasing decisions as good as TV ads.

It is very well understood that social media networks are accessible to all and marketers can optimize the potential of this network so as to increase their businesses. Marketing strategies can be adopted in an effective and efficient manner when information is available about the perception, attitude, opinion, interest, likes and dislikes of the targeted audience. Promotional efforts on the part of marketers can be more customer centric. As per a survey done by Clutch (2017), Social media is more valuable to B2C than B2B companies.In India, it has been observed that despite huge opportunities, companies are yet to exploit them to the highest level.

POPULAR SOCIAL MEDIA PLATFORMS

Various popular and available platforms like Facebook, Youtube, Instagram, Twitter, Linkedin etc. differ in their specifications and purposes. Not all platforms can be useful for every purpose. It is a very calculative decision to choose the right platform for your business. Market research insights help the marketers to delve into the various factors responsible for marketing decisions. Following platforms are the major ones across the world. The network chosen by a company is dependent on the type of business it is into.

As per Vinerean, S. (2017), Alalwan et al. (2017) emphasized on the importance of research to be done for the various social media platforms so as to understand the impact of these media and evaluate return on investment.

- Facebook - Facebook has emerged as the largest network of social media users. It's been also getting established in different researches that time spent on Facebook on an average basis is also increasing drastically. Companies can tailor their advertising campaigns to cater to the need of potential customers and increase the traffic on their respective pages.

- Twitter – Twitter is a platform for tweets where the message is limited to 280 characters. It is a wonderful medium for liking and sharing the tweets and fast communication. However, if the content to be shared is long then definitely it's not the place.

- YouTube – You tube has emerged as an alternative to cable TV. Companies need to put efforts to make the videos of their products more engaging, short and effective so that the message reached to the audience in an efficient manner. First couple of minutes of the video decides the fate of the video.

- Linkedin – Linkedin is the best platform for companies in B2Bs (Business to Business) since their targeted audience is other business professionals and commercial clients.

● Instagram – If the marketer wishes to promote its content in the form of images then Instagram is one platform which can be used undoubtedly as it allows sharing of images and one can use an image to promote a specific content.

	Facebook	Twitter	Youtube	Linkedin	Instagram
Users* *(Source: Blog by Blue Corona, 2017)	22% of the world's total population	88% of businesses with more than 100 employees	1 billion hours of videos is watched per day	1 million LinkedIn users .	1 million monthly active advertisers
Objective	Building Relationships	News, Article, Conversation	"How to", Lifestyle, Educational	News, Article, Networking	Building Relationships, Conversation
Upside	Building Brand loyalty	Public Relations	Brand awareness	Brand awareness, Business development	Lead generation
Downside	Limited Reach	Limited to 280 characters	Resource intensive	Limited interactions	Images and videos only

Table 1: Comparison of various social media platforms

RELEVANCE OF SOCIAL MEDIA MARKETING

With ever increasing number of social media users it is considered to be the most powerful medium to influence the customers. For marketers social media (Facebook, Instagram, and Twitter etc.) has become new reality and essential part of their promotional strategies. It has become inevitable to optimize the power and potential of social media. (Lamberton and Stephen 2016) explained that usage of social media has emerged as a marketing intelligence source. (Zeng et al. 2010) highlighted the importance of social media analytics and intelligence for marketers to hit the consumers efficiently.

● Highly Impactful Medium of Communication - Social media users are quick in sharing their opinions for various products/services/trends, raise their voice about issues in real time. As a marketer, insights can be gained through an access to such feedback platforms and design the strategies accordingly. Marketers can communicate their brand image and benefits to the targeted audience and create a wonderful experience for the consumers. Social platforms help the marketers to connect with its customers.

● Increase Brand Equity - Social media is accessible to all at a very low cost. Profiles on social media can be created for individual company irrespective of the size of the company. Audience reach is wider and across different geographic locations. Therefore, it is one of the most powerful tools to increase brand equity through likes, share, comments, visits etc.

- Start Immediately - Immediate start of promotional strategies even for smallest of the organizations is what makes social media inevitable. It is this feature that makes small organizations to compete with larger organizations as earlier promotion of the products/services was an expensive affair and not every organization could afford it.

BARRIERS TO SOCIAL MEDIA MARKETING

- Unlimited Content – With everyone trying to be online and make its presence on social media has resulted in an unlimited data available on internet. There is no structured information which can give right inferences, So, It becomes difficult for both markets and consumers to dig into big data and find the relevant piece of information.

- Negative Feedback – Social Media does not always result in expected promotion as these platforms are equally open to negative feedback. Any negative comment from an influencer or opinion leader can derail the advertising process. Almost everything can be shared by anyone with everyone. Negative feedback travels fast than positive comments and create distrust with the advertised brand.

- Dynamic in Nature – As we understand that media is highly dynamic in nature; therefore, it's an ever-changing space which is extremely noisy and crowded. It becomes difficult to match with evolving trends on social media regularly.

- Absence of Formal Strategy – Promotion on social media is not generally in a formal structure and planned manner. Marketers change their strategies as per the trends and take short term decisions sometimes, resulting in premature analysis and wrong interpretations.

USER GENERATED CONTENT (UGC) & SOCIAL MEDIA ANALYTICS

Organizations need to do research and development (R&D) of the marketing environment to understand the needs and wants of the customers subsequently product development. For the purpose they use various methods to collects data and analyse. User-generated content (UGC) is an upcoming primary data source for detecting customer needs.

User-generated content is the total outcome of opinions, comments, shares, views and reviews, or videos shared by consumers/customers. This data is unstructured but is very volatile in nature. It can be used to shape or reshape the marketing strategies, if analysed in a systematic manner. Insights coming from the analysis of user generated content can be invaluable for any organization. The use of this open content is witnessing a drastic growth over last couple of years.

Data gathering, Pattern recognition and Building a community are few of applications of user generated content. (Thoumrungroje, 2014) explained the fact that before a purchase is made, customers prefer to rely on user generated content at different networks. They trust the information available at social media apps. (Bae & Lee, 2011) also discussed that consumers who are available online take assistance from the user generated information before buying a product.

(Jin & Phua, 2014; Kim & Johnson, 2016) have studied the impact of user generated content on different behavioural consumer variables like brand engagement and buyer intension. Forbes recommendation to organizations to take pre-emptive steps so as to fuel the creation of user-generated content (Olenski 2017) highlights the value of user generated content.

(Merckel, 2017) advocates that user-generated content is both cheaper to implement, and more effective.

Social media analytics is the process of mining the data gathered from various social media sources and taking out inferences after analysing the data using various analytical tools to make calculated business decisions.

Batrinca & Treleaven (2015), Sentiment analysis is one of the most common techniques to mine sentiments of consumers expressed online platforms to support activities related to marketing and customer service. Sentiment Analysis defines a positive, negative or neutral statement by using an algorithm which conglomerates Machine Learning techniques and Natural Language Processing. However, despite of its popularity and ease (Stieglitz and Dang-Xuan, 2012) sentiment analysis faces many problems like the use of different symbols in the form of emojis, jargons, etc.

OBJECTIVES & RESEARCH METHODOLOGY

Along with the objective to understand the concept of social media marketing present study is an attempt to conduct sentiment analysis for a service provider viz., Whitehat Junior. It is a live online coaching service provider for learning of coding and maths for kids. WhiteHat Junior, the coding platform had raised $11 million in funding and was recently acquired by Byju's. The objectives of the study are:

a) To understand the concept of Social Media Marketing
b) To analyse the opinion of users of Whitehat Junior
c) To identify the most expressed features of Whitehat Junior

A review of literature was conducted to understand Social Media Marketing. For the research data was collected from the Facebook page of "Whithat Junior". Data was in the form of reviews and opinions. "R" software was used for sentiment analysis. R is an open-source programming language and free software. It is used for data mining and visualizations of the data. In the present study NCR lexicon has been used to classify the sentiments as negative and positive. Sample size was taken as 200 reviews on the said Facebook page.

FINDINGS

The lexicon used here classified the sentiments in different emotions i.e., Disgust, Joy, Sadness, Surprise, Fear, Anticipation, Anger, Trust, Negative and Positive. As shown in Figure 1, it has been observed that most of the people are talking in a positive manner about the online coaching services provided by Whitehat Junior. Results indicate that frequency of words carrying positive emotions is more as compared to negative emotions.
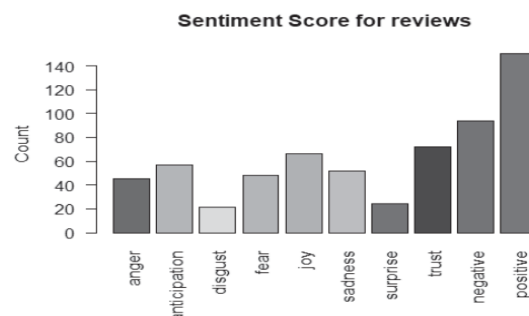

Figure 1: Sentiment analysis based on Lexicon NRC

Below in table 2, top 10 words in terms of their occurrences have been shown. This table was generated through a function of dtm matrix, rowSums and number of occurrences. The words 'coding' and 'coder' have been used most frequently which is obvious as Whitehat Junior is coding platform. Words like 'App development, 'Early', 'Age' gives an indication of positivity.

Word	Coding	Coder	Kids	Online	Live	App Development	Age	Early	Best	Expensive
Frequency	52	48	42	32	25	20	20	20	20	18

Table 2: Exact frequency of words

Function of correlation is applied to find out the relationship between two words. Therefore, 'cor-word' and 'findAssocs' was run. Purpose was to find out the strongly related words with the extracted word 'coding'. Table 3 shows the relationship of 'Coding' with other words. Outcomes indicate that Coding has a strong correlation with the words like 'early' and 'age' and comparatively weak relationship with 'CEO'. Likewise correlation can be measured for all the words. Marketers can interpret that coding is weakly associated with the term CEO, therefore, promotional strategies should not focus on kids becoming CEOs after learning coding. However, correlation with early and age can tell that users are considering the early age advantage for learning a new language in terms of coding. Pricing in view of expensive service is also getting correlated.

Early	Age	Expensive	Easy	Personal	Live	Trial	Future	Skill	CEO
0.67	0.65	0.61	0.57	0.56	0.51	0.5	0.49	0.45	0.3

Table 3: Correlation of words associated with 'Coding"

CONCLUSION

This study is a contribution in the field of marketing. Social media analytics is emerging as an influential medium to promote the products/services and increase traffic on various e-commerce websites to get more sales. No doubt, this growth of social media is there to live. However, the fact that every technology has its own pros and cons and therefore, businesses need to keep themselves competitive and engage the customers in an interesting manner in their respective industries. Choosing an appropriate platform will be a key.
With the increase in number of followers of social media across the globe, it is expected that majority of consumers will rely on the social media for their purchase decisions and organizations without a presence on social media could lose potential customers.

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